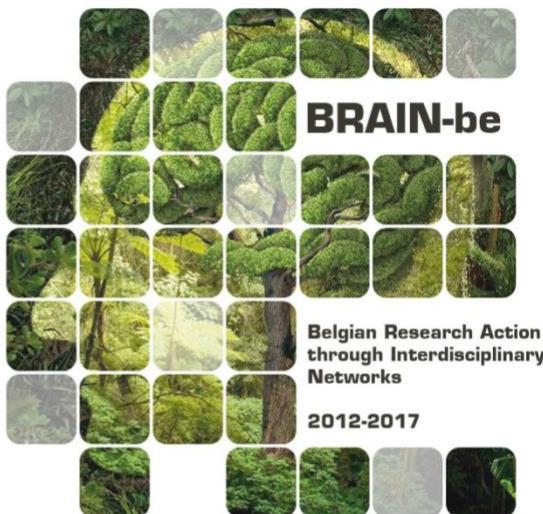


IDEALiC

Setting the Future Scene of e-Inclusion

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Axis 5: Major societal challenges



NETWORK PROJECT

IDEALiC Setting the Future Scene of e-inclusion

Contract - BR/143/A5/IDEALiC

FINAL REPORT

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Leo Van Audenhove, Hadewijch Vanwynsberghe & Ilse Mariën*

Mediawijsheid in Vlaanderen

VAN PARLEMENTAIRE DISCUSSIE TOT DE oprichting van
HET KENNISCENTRUM MEDIWIJSHEID

Inleiding

In heel wat Europese landen zijn de afgelopen vijftien jaar instellingen opgericht die mediageletterdheid of mediawijsheid moeten bevorderen in hun respectieve landen. Landen als Nederland en het Verenigd Koninkrijk gaven de toon aan door reeds in het begin van het eerste decennium van de eenentwintigste eeuw aandacht te besteden aan mediawijsheid. In Nederland werd het belang van mediawijsheid in 2006 herbevestigd door de Raad voor Cultuur, een adviesorgaan van het ministerie van Onderwijs, Cultuur en Wetenschap (Ingen Housz, 2011). Op Europees niveau wordt *media literacy* specifiek belicht in een *Commission Recommendation over ‘media literacy in a digital environment’* uit 2009 (European Commission, 2009) en kort opgenomen in de *Audiovisual Media Service Directive* van 2010 (European Parliament, 2010). Ondanks de toenemende beleidsinitiatieven op het gebied van mediawijsheid, is er weinig beleidsonderzoek naar hoe verschillende overheden hun intenties om mediawijsheid te bevorderen, beleidsmatig vormgeven (Frau-Meigs, Velez & Michel, 2017). Dit artikel belicht de discussie over én de beleidvorming van mediawijsheid in Vlaanderen.

In Vlaanderen startte de discussie rond mediawijsheid in het Vlaams Parlement in 2006. Toch duurde het tot 2013 voordat de Vlaamse overheid Mediawijs, het Vlaams Kenniscentrum voor Mediawijsheid, oprichtte. Vlaanderen is daarmee een regio die pas relatief laat een instituut opricht met als opdracht mediawijsheid te bevorderen. Ook beleidsmatig heeft het relatief lang geduurd alvorens er een afgerond formeel kader ontstond rond mediawijsheid. Dit artikel beschrijft en analyseert het Vlaams

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beleid op het gebied van mediawijsheid. Het licht de ontstaansgeschiedenis en de opdracht van het Kenniscentrum Mediawijsheid toe. Voorts beschrijft het de rol van de publieke omroep in relatie tot mediawijsheid. De publieke omroep maakt namelijk deel uit van een meeromvattend beleid over mediawijsheid. Het artikel start met een theoretische uiteenzetting waarin vier actuele discussies binnen het veld van mediawijsheid worden toegelicht. Afsluitend worden een aantal reflecties geformuleerd.

Theoretisch kader

Actuele discussies binnen mediawijsheid

Het theoretische veld over mediawijsheid is bijzonder breed en divers. Renée Hobbs (2005) geeft aan dat mediawijsheid raakvlakken heeft met verschillende disciplines, zoals onderwijs, communicatiewetenschappen, mediastudies, psychologie, cultuurwetenschappen, literatuurwetenschappen, telecommunicatiestudies en bibliotheekwetenschappen. Het hoeft dan ook niet te verwonderen dat de definities en conceptualiseringen van mediawijsheid sterk uiteenlopen en dat de beoogde doelstellingen vaak verschillen (Hoechsmann & Poyntz, 2012; Livingstone, Papaioannou, Del Mar Grandia Pérez & Wijnen, 2012; Potter, 2014). De complexiteit van de discussie verhoogt bovendien doordat de *digitale revolutie* in de media en de introductie van interactieve online media het debat over mediawijsheid de laatste 25 jaar enorm hebben beïnvloed. Een vaak gehanteerde definitie is de definitie die ontworpen werd tijdens de *National Leadership Conference on Media Literacy* in de Verenigde Staten in 1993: ‘*Media literacy is the ability to access, analyze, evaluate and communicate messages in a variety of forms*’ (Aufderheide, 1993). Belangrijk in deze definitie is de insluiting van het meer actief communiceren van boodschappen. Dit sluit aan bij de meer interactieve toepassingen die het internet en sociale media mogelijk hebben gemaakt.

Het is niet de bedoeling om de lezer in te wijden in de uitgebreide theoretische en conceptuele discussies over mediawijsheid. In wat volgt geven we een aantal trends in die discussies weer, die belangrijk zijn om de huidige interesse in het brede veld van mediawijsheid te begrijpen. Deze trends vormen meteen een conceptueel kader waaraan het beleid in Vlaanderen getoetst kan worden.

Ten eerste, in de laatste decennia is de discussie over mediawijsheid geëvolueerd van een eerder protectionistische invulling van mediawijsheid naar een meer *empowerment*-georiënteerde invulling van mediawijsheid. De protectionistische invulling veronderstelt dat media een negatief effect hebben op gebruikers en meer specifiek op jongeren. Daarbij ziet deze invulling de gebruiker als een passief ontvanger van berichten (Potter, 2013). De protectionistische invulling heeft een lange traditie binnen de communicatiewetenschappen en is theoretisch verbonden met uiteenlopende scholen, meer specifiek met *media effect studies* en kritische politieke economie. De eerste, de *media effect studies*, onderzoekt korte- en langetermijneffecten van media en

media-inhoud, zoals marketing, gewelddadige inhoud et cetera. De tweede, de kritische politieke economie, ziet media als een ideologische *tool* van het kapitalistisch bestel dat inherent de waarheid kleurt en vervormd in functie van dat systeem. Mediawijsheid is hierbij vooral gericht op het vermijden of beperken van het gebruik van *slechte* of *gekleurde* media én/of in het leren duiden van *slechte* inhoud. De *empowerment*- of emancipatorische invulling gaat uit van de idee dat media integraal deel uitmaken van onze samenleving. Gebruikers worden in staat geacht om op een actieve en constructieve manier om te gaan met media. Mediawijsheid moet hen ondersteunen om autonome en kritischer om te gaan met media en informatie- en communicatietechnologieën (ICT) (Jenkins, 2006; O'Neill & Barnes, 2008; Von Feilitzen & Carlsson, 2003). De empowermentinvulling promoot vaak de idee dat initiatieven rond mediawijsheid moeten gebruik maken van de inhoud, programma's en toepassingen die gebruikers effectief bekijken en consumeren, met andere woorden: van inhoud die aansluit bij de leefwereld van de gebruiker. De empowermentinvulling is nauw verbonden met de *cultural-studies*-traditie binnen de communicatiewetenschappen en met de constructivistische aanpak binnen de onderwijswetenschappen.

Ten tweede, de hernieuwde aandacht voor mediawijsheid is nauw verbonden met de enorme veranderingen in het veld van media, telecommunicatie en internetregulering in de laatste drie decennia. Digitalisering maakt het mogelijk dat gebruikers zelf producenten worden van informatie en inhoud, wat het beeld van de gebruiker als passieve ontvanger van informatie en mediaproducten sterk in vraag stelt (Hoechsmann & Poyntz, 2012). Het verdwijnen van de grenzen tussen een lineair omroepmodel en de digitale verspreiding van inhoud heeft de impact van beschermende regulatorische maatregelen op het vlak van inhoud sterk ingeperkt. Als gevolg is er een duidelijke verschuiving in het regulatorische veld naar co-verantwoordelijkheid op het Europese niveau (Marsden, 2011). Gezien het publiek meer inhoud naar zich toe kan 'trekken' (*pull mode*), verhoogt de individuele verantwoordelijkheid voor wat bekijken en geconsumeerd wordt. Zelfregulering op het niveau van het individu wordt dus door velen belangrijker geacht dan het doorvoeren van sterk beschermende mediaregulering (Wallis & Buckingham, 2013). Mediawijsheid wordt dan ook meer en meer gezien als een manier om kritische competenties van gebruikers te ondersteunen in afwezigheid van strikte mediaregulering (O'Neill, 2010; Wallis & Buckingham, 2013).

Ten derde, het gros van de academici die werken rond mediawijsheid gaan uit van een op competentie en vaardigheden gebaseerde aanpak van mediawijsheid (Livingstone, 2004; Potter, 2014). Potter identificeert zeven cognitieve vaardigheden: '*analysis, evaluation, grouping, induction, deduction, synthesis and abstraction*' (Potter, 2013). De werken van deze academici hebben raakvlakken met andere recente discussies op het gebied van vaardigheden en competenties rond *e-skills*, internetvaardigheden, codeeringsvaardigheden et cetera. Echter, waar mediawijsheid zich initieel richtte op cognitieve vaardigheden die een kritische deconstructie van media en media-inhoud ver-

sterken, spitsde de discussie rond digitale vaardigheden zich bij aanvang toe op operationele vaardigheden die het gebruik van technologie moeten garanderen. Tot voor kort liepen deze discussies eerder parallel naast elkaar. Maar recente theorieën in het veld van mediawijsheid nemen toenemend creatieve en communicatieve vaardigheden op in hun modellen om tegemoet te komen aan het interactieve aspect van media. Van hun kant besteden competentiemodellen rond digitale vaardigheden steeds meer aandacht aan cognitie en strategische vaardigheden (Hobbs, 2011; Hoechsmann & Poyntz, 2012; Wallis & Buckingham, 2013). Het naar elkaar toegroeien van beide stromingen is dus een direct resultaat van convergerende interactieve media. De onderliggende doelstellingen van beide stromingen zijn echter inherent verschillend. Mediawijsheid gaat uit van brede humanistische en esthetische doelstellingen in relatie tot burgerschap, het genieten van cultuur, media, amusement, games en kunst. Het debat rond digitale vaardigheden start doorgaans van sterk utilitaristische doelstellingen, zoals economische vooruitgang, werkgelegenheid en individuele ontwikkeling. Daarbij negeert het debat rond digitale vaardigheden in grote mate het feit dat media een belangrijke sociale en amusementsfunctie hebben in het dagelijks leven van de gehele bevolking.

Antecedenten van mediawijsheid in Vlaanderen tot 2009

Zoals in vele andere landen heeft het debat rond mediawijsheid antecedenten in eerdere discussies en initiatieven. Het huidige debat rond mediawijsheid in Vlaanderen heeft twee belangrijke voorlopers: 1) de discussie rond mediageletterdheid en beeldgeletterdheid binnen het onderwijs en de culturele sector, 2) ontwikkelingen binnen het veld van de digitale kloof en digitale inclusie als resultaat van de graduele digitalisering van de media en de samenleving.

Discussie binnen onderwijs en culturele sector

Binnen de Vlaamse Regering valt de verantwoordelijkheid voor onderwijs onder de minister van Onderwijs. In 2004 richtte de Vlaamse Regering een semionafhankelijk Agentschap voor Onderwijscommunicatie op. De belangrijkste doelstelling van het Agentschap was en is een communicatieomgeving te creëren waarin leraren, leerlingen, ouders en derden zich kunnen informeren, kunnen communiceren en actie kunnen nemen in relatie tot onderwijs. Het mandaat van het Agentschap omvat eveneens het stimuleren van culturele participatie van kinderen en jongeren, met een specifieke focus op het kritisch, actief en autonoom engagement met kunst en cultuur. Het Agentschap kent twee initiatieven die raakvlakken hebben met het veld van mediawijsheid.

Ten eerste is de CANON Cultuurcel verantwoordelijk voor de opdrachten in relatie tot cultuureducatie. CANON Cultuurcel heeft de afgelopen jaren meerdere projecten geïntroduceerd met een focus op culturele communicatie (Vos & Terryn, 2014). Deze projecten leggen vaak de nadruk op audiovisuele kunst, esthetische aspecten van media, cultuur en erfgoed. Sinds 2005 heeft CANON Cultuurcel een rij van

INgeBEELD- projecten opgezet voor verschillende leeftijdsgroepen van 3 tot 18 jaar. De INgeBEELD-werkvormendoos en online platformen moeten studenten, leraren en lesgevers ondersteunen om multimediale geletterdheid te verhogen op basis van *best practices*.

Ten tweede ontwikkelt *Klasse* specifieke communicatie over onderwijs in Vlaanderen voor leraren, leerlingen en ouders. In haar magazines, nieuwsbrieven en online platformen behandelt *Klasse* zowat alle thema's die een raakvlak hebben met jeugd en onderwijs. Specifieke topics die aansluiten bij de brede definitie van mediawijsheid, zoals *gaming*, privacy, mediaverslaving, *sexting*, mediaopvoeding et cetera, worden behandeld vanuit verschillende perspectieven. Tot 2015 kregen alle huishoudens met leerlingen op school het maandelijkse magazine *Klasse voor ouders*. Om budgettaire redenen werd *Klasse* omgevormd tot een volledig online magazine, wat een aanzienlijke impact heeft op haar bereik.

Digitale kloof en digitale inclusie

Vlaanderen heeft steeds de ambitie gehad om bij de sterke regio's te horen in Europa op het vlak van innovatie, digitaliseringprocessen, *e-government* en meer algemeen in de evolutie naar een kennis- en innovatiesamenleving. Door de jaren heen werden verschillende plannen ontwikkeld om deze doelstellingen te bereiken. Het eFl@nders Plan in 2002 (Vlaamse overheid, 2002), het Digitaal Actie Plan in 2005 (Vlaamse overheid, 2005a) en meer recent het Vlaanderen Radicaal Digitaal Plan in 2015 (Vlaamse overheid, 2005b) hebben alle in de eerste plaats een focus op innovatie en groei. Daarnaast besteden al deze plannen ook aandacht aan meer maatschappelijke uitdagingen, zoals de digitale kloof, vaardigheden en competenties, sociale cohesie en democratische participatie. Vooral het e-inclusiedebat, dat verschoven is van een focus op toegang in huis en/of op school naar een focus op attitudes, vaardigheden en competenties, heeft sterke raakvlakken met de debatten over mediawijsheid.

Parlementaire discussies en beleidsbrief Peeters 2006-2009

In aanvang vinden de discussies over mediawijsheid in Vlaanderen voornamelijk plaats in het Vlaams Parlement. De term ‘mediawijsheid’ duikt er voor het eerst op in een vergadering van de Commissie Cultuur, Jeugd, Sport en Media van juni 2006.¹ De discussie handelt over de hervorming van de filmkeuringscommissie en de bescherming van minderjarigen binnen de audiovisuele media en de gamesector. De heer Joris Vandenbroucke, parlementslid voor de sociaaldemocratische sp.a, verwijst er naar het Nederlandse Kijkwijzer-systeem en breekt een lans voor een empowermentaanpak van mediawijsheid:

‘Ze hadden het [in de filmkeuringscommissie] niet alleen over het afschermen van kinderen, maar ook over het verbieden van de toegang tot bepaalde vormen van media voor kinderen. Ik ben daar absoluut niet voor. We moeten ervoor zorgen dat we de nodige instrumenten in handen hebben om kinderen die televisiekijken en

gamen, te begeleiden. We moeten er ook voor zorgen dat kinderen zelf instrumenten in handen krijgen om op een verstandige manier met media om te gaan. Ik verwijst naar Nederland waar niet wordt gesproken van *mediaopvoeding*, maar wel van *mediawijsheid*. Ik vind dat een interessante term die enerzijds aangeeft dat ouders en leerkrachten een verantwoordelijkheid hebben, maar anderzijds ook dat kinderen best in staat zijn om op een verstandige manier met media om te gaan.' (Interventie Joris Vandenbroucke in (Vlaams Parlement, 2006))

De toenmalige minister van Cultuur, Jeugd, Sport en Brussel, Bert Anciaux lijkt de term 'mediawijsheid' in zijn antwoord niet ongenegen:

'We kunnen ons de vraag stellen of het nog nodig is dat de overheid optreedt, wanneer een bepaalde tak van de media-industrie zelf zo'n regeling uitwerkt. (...) ik (zie) een verkoopverbod voor sommige games niet zitten. De spelletjes worden er alleen maar aantrekkelijker door en jongeren weten die toch te bemachtigen, desnoods in piratenversie. Een informatiesysteem waardoor ouders en opvoeders de discussie aangaan met hun kinderen, lijkt mij daarom meer aangewezen. In die zin kan je dan misschien eerder spreken over *mediawijsheid*.' (Interventie Bert Anciaux in (Vlaams Parlement, 2006))

Deze discussie in het Vlaams Parlement is waarschijnlijk de geboortedatum van het concept 'mediawijsheid' in Vlaanderen, maar ze leidt niet direct tot nieuwe acties. In een Commissievergadering twee jaar later (mei 2008) – wederom in het kader van een discussie over *gaming* – stelt parlementslid Tinne Rombouts (CD &V) opnieuw een vraag aan de minister voor Cultuur, Jeugd, Sport en Brussel, Anciaux:

'Men wil (...) een Nederlands expertisecentrum uitbouwen dat zowel gezinnen als scholen zal ondersteunen in de goede omgang met de virtuele wereld. Mijn vraag daarbij is of u mogelijkheden ziet om meer te investeren in projecten van mediawijsheid (...). Zou zo'n kenniscentrum ontwikkeld kunnen worden en ziet u een trekkende rol weggelegd voor uzelf als minister bevoegd voor kinderrechten en jeugd?' (Interventie Tinne Rombouts in (Vlaams Parlement, 2008b))

Parlementslid Rombouts stelt in dezelfde periode gelijkaardige vragen aan Geert Bourgeois, minister van Bestuurszaken, Buitenlands Beleid, Media en Toerisme (Vlaams Parlement, 2008a) en aan Frank Vandenbroucke, minister van Werk, Onderwijs en Vorming. Beide zijn ontwijkend in hun antwoorden. Bourgeois geeft aan dat de openbare omroep reeds indirect bijdraagt tot kennis van media. Vandenbroucke geeft aan dat binnen het onderwijs reeds gewerkt wordt aan media en dat media deel uitmaakt van de eindtermen. Op de vraag of er nood is aan een kenniscentrum antwoordt deze laatste eerder negatief (Vlaams Parlement, 2008c).

De werkzaamheden in het Parlement leiden echter tot een Voorstel van resolutie betreffende de ondersteuning van de gamesector in Vlaanderen. Het voorstel wordt op 5 juni 2008 ingediend door Rombouts en vijf andere parlementsleden afkomstig van de christendemocratische CD &V, sociaaldemocratische sp.a, conservatief nationalistische N-VA, liberale VLD en het ecologische Groen. Deze resolutie is politiek gedragen door partijen uit de coalitie en buiten de coalitie. Ze handelt over *gaming*, *ratings* van games, de ondersteuning van de gamesector én over mediawijsheid. Ze benadert *gaming* op een positieve manier en beschouwt het als een cultuurproduct. De resolutie formuleert aanbevelingen over zelfregulering in lijn met PEGI (*Pan-European Game Information*, het leeftijdskwalificatiesysteem voor games) en over toezicht op zelfregulering, legt de focus op de educatieve waarde van *games* en stelt maatregelen voor tot het stimuleren van de gamesector. Over mediawijsheid stelt de resolutie:

‘De indieners zijn van oordeel dat een kenniscentrum Mediawijsheid, naar het voorbeeld van Nederland en Groot-Brittannië, een belangrijke bijdrage kan leveren om ouders en kinderen beter toe te rusten om verantwoord en bewust met games, internet en andere media om te gaan. (...) Het Vlaams Parlement (...) vraagt de Vlaamse Regering: (...) 4° een kenniscentrum Mediawijsheid op te richten bij de Vlaamse Regulator voor de Media dat kennis verzamelt over de technologische ontwikkelingen, dat wetenschappelijk onderzoek uitvoert of laat uitvoeren naar de effecten en de educatieve mogelijkheden van nieuwe media zoals internet, games en interactieve software, en dat sensibiliseringscampagnes opzet voor jongeren, ouders, leerkrachten en opvoeders, onder andere in samenwerking met de Gezinsbond, het onderwijsstijdschrift Klasse, de sociaal-culturele vormingsorganisaties voor jongeren en volwassenen enzovoort; (...).’ (Vlaams Parlement, 2008d)

De resolutie wordt door het Parlement aangenomen op 9 juli 2008 en wordt kort daarop reeds vertaald in beleidsdoelstellingen binnen de executieve. In de beleidsbrief Media van oktober 2008 van de minister-president – en intussen minister van media² – Kris Peeters, wordt voor het eerst in een beleidstekst van de regering explicet ingegaan op mediawijsheid. Mediawijsheid wordt hier gekaderd in de problematiek van opinievorming van burgers binnen een convergerende digitaal medialandschap. Daarbij wordt vooral aandacht geschenken aan de negatieve aspecten van berichtgeving en opinievorming in de digitale omgeving:

‘De meest relevante nieuwe factor in dit gebeuren is wellicht het bijbrengen van en het streven naar mediawijsheid (...). Lezers, luisteraars en kijkers moeten meer gevormd worden om de hen voorgeshotelde informatie te plaatsen en naar waarde te schatten. Dat is wat mediageletterdheid ook inhoudt: het kunnen omgaan op een verantwoorde manier met de veelheid van voorgekauwde berichtgeving, hetgeen toelaat het kaf van het koren te scheiden en een kritische houding aan te nemen ten opzichte van de soms ingelepelde berichtgeving.’ (Peeters, 2008)

In termen van voorgestelde beleidsacties blijft het document nog vaag:

‘De Vlaamse Regulator voor de Media voert momenteel een vergelijkend onderzoek uit betreffende de organisatiestructuur van dergelijke kenniscentra in verschillende Europese landen. Na deze studie zal beslist worden over de oprichting van een passende structuur in Vlaanderen.’ (Peeters, 2008)

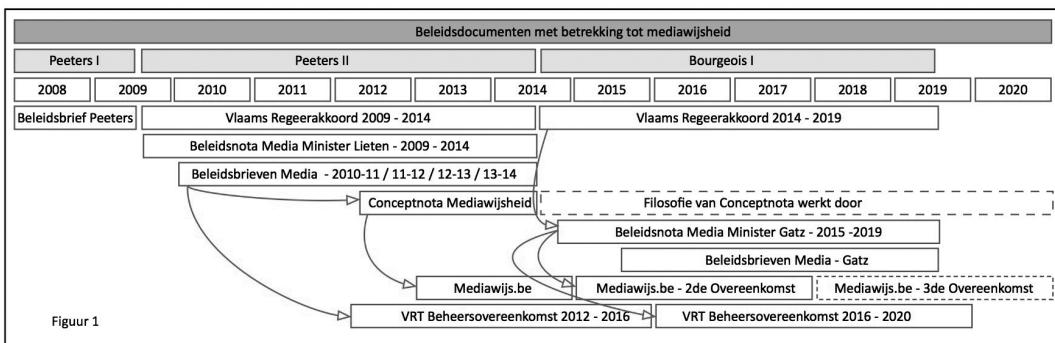
In het kader van de ontwikkeling van een nieuw Decreet betreffende de radio-omroep en televisie, komt de oprichting van een kenniscentrum mediawijsheid terug op de agenda. Op 3 maart 2009 wordt een extra hoorzitting georganiseerd met twee thema’s, waaronder standpunten over het op te richten kenniscentrum mediawijsheid. Voor dit thema worden drie uiteenzettingen gegeven: 1) door Joris Sels, gedelegeerd bestuurder, en professor Katia Segers,³ voorzitter van de raad van bestuur van de Vlaamse Regulator voor de Media (VRM), 2) door Christine Claus, secretaris-generaal van het departement Cultuur, Jeugd, Sport en Media, en 3) door David Stevens, voorzitter van de Sectorraad Media van de Strategische Adviesraad voor Cultuur, Jeugd, Sport en Media (Vlaams Parlement, 2009). In haar uitgebreide bijdrage geeft Segers haar visie op mediawijsheid en breekt een lans voor het inrichten van een kenniscentrum binnen de VRM. Ze beschrijft een model van *multistakeholder governance* waarin volgens haar een spanningsveld bestaat tussen bescherming, via reguleering en controle, en emancipatie, waarbij wordt ingezet op media-educatie. Ze stelt:

‘Een reguleringsinstantie lijkt dan de aangewezen instantie om zowel controle uit te oefenen op regulering ter bescherming, als initiatieven te initiëren en te coördineren om “empowerment” te bewerkstelligen.’ (Vlaams Parlement, 2009)

Christine Claus gaat in haar bijdrage sterk in op de mogelijke werking van een kenniscentrum. Ze verwijst uitgebreid naar de verschillende activiteiten die het Departement Cultuur, Jeugd, Sport en Media reeds opneemt én naar de raakvlakken die er zijn tussen het departement en de verschillende actoren in Vlaanderen. Zij pleit voor het organiseren van de functies van het kenniscentrum binnen het departement en geeft aan dat dit de beste plaats is voor de organisatie van een kenniscentrum (Vlaams Parlement, 2009). De discussie die hierop volgt omvat overwegingen en pleidooien die beide voorstellen in twijfel trekken of ondersteunen. Het zal echter binnen de regering-Peeters I niet meer tot een beslissing leiden.

De discussie rond mediawijsheid ontspint zich slechts langzaam in Vlaanderen. Toch wordt uit de analyse duidelijk dat vanaf 2006:

1. de discussie rond mediawijsheid in Vlaanderen vorm krijgt;
2. het Parlement – en meer bepaald de Commissie Media – in deze discussie het voortouw neemt met een groot draagvlak binnen en buiten de coalitie;
3. er vaak verwezen wordt naar Nederland als inspiratiebron;



FIGUUR 1. *Regering-Peeters II 2009-2014 en de conceptnota Mediawijsheid*

4. de initiële discussie sterk verbonden is met de mogelijke negatieve invloed van digitale media, meer bepaald rond gaming en opinievorming;
5. de discussie rond mediawijsheid verbonden is met die van regulering van de media door de overheid of in de vorm van co-regulering tussen overheid en industrie;
6. het individu – inclusief kinderen – in staat wordt geacht op een verstandige manier om te gaan met media.

Figuur 1 geeft een chronologisch overzicht van de formele beleidsdocumenten over mediawijsheid en biedt een houvast bij de discussie van het formele beleid. Binnen het Vlaams Parlement blijft mediawijsheid tot op heden een thema dat regelmatig op de agenda komt, vooral in de commissies media en onderwijs.

Regeerakkoord, beleidsnota en beleidsbrieven

De regering-Peeters II is een coalitie van christendemocraten CD &V, sociaaldemocraten sp.a en conservatief nationalisten N-VA. Deze regering heeft een ambtstermijn van 2009 tot 2014. Het is de eerste regering die mediawijsheid explicet opneemt in haar regeerakkoord, waarin de brede beleidslijnen worden uitgezet van wat de Vlaamse overheid in haar vijfjarig mandaat wenst te verwezenlijken. Het Regeerakkoord 2009-2014 vermeldt drie doelstellingen die raakvlakken hebben met mediawijsheid: 1) het wegwerken van de digitale kloof, 2) het voorzien van toegang tot internet tegen een democratisch tarief, en 3) mediagebruikers de nodige vaardigheden bijbrengen zodat ze op een adequate manier met nieuwe media kunnen omgaan (Vlaamse Regering, 2009). In het regeerakkoord wordt de oprichting van een kenniscentrum in het vooruitzicht gesteld:

‘Mediagebruikers moeten de nodige vaardigheden kunnen verwerven om adequaat met de nieuwe media om te gaan. We richten daarom een Kenniscentrum Mediawijsheid en Mediageletterdheid op dat de samenwerking zal coördineren

met alle betrokken partners. Overheidsvoortlichting moet ook gebeuren via internet, in het bijzonder via de sociale media waar veel mensen actief zijn.' (Vlaamse Regering, 2009)

De bepalingen over mediawijsheid worden door minister voor Media Ingrid Lieten verder uitgewerkt in haar Beleidsnota Media 2009-2014⁴ (Lieten, 2009). Mediawijsheid wordt hierin ruim gedefinieerd. De beleidsnota stelt een heel open en moderne visie voor, waarin zowel creëren, als beschouwen opgenomen zijn voor alle vormen van media:

'Mediawijsheid omvat vele niveaus: het kunnen omgaan met alle bestaande media; het actief gebruik kunnen maken van media; de media kritisch kunnen benaderen; het creatief gebruik kunnen maken/produceren van media ('user generated content'); inzicht hebben in de economie van de media; zich bewust zijn van kwesties die verband houden met auteursrechten in de huidige digitale samenleving.' (Lieten, 2009)

Opmerkelijk in deze beleidsnota is ook de nadruk op specifieke doelgroepen en op sociale aspecten van mediawijsheid:

'Het kenniscentrum zal bij dit alles bijzondere aandacht hebben voor de specifieke noden van doelgroepen als jonge kinderen, adolescenten en senioren, maar ook kwetsbare groepen zoals mensen met een handicap of zij die leven in armoede.' (Lieten, 2009)

In haar Beleidsbrief Media 2010-2011 werkt Lieten haar beleidsvisie op mediawijsheid verder uit. Mediawijsheid wordt verder gedefinieerd en verbonden met e-inclusie, digitale kloof van de tweede graad, stereotypering en representatie, vaardigheden en diversiteit:

'Kwaliteit hangt nauw samen met toegankelijkheid en vernieuwing. De complexiteit van de media zorgt er soms voor dat er "mediaslachtoffers" vallen – denk maar aan jongeren die gepest of gestalkt worden via het internet. We zien ook een nieuwe kloof groeien tussen mensen met "mediawijsheid" en zij die daar niet over beschikken of we merken dat kansengroepen (...) zich uitgesloten voelen omdat er van hen slechts stereotype beelden worden opgehangen. Het is mijn vaste overtuiging dat elke Vlaming in staat moet zijn soepel met de (nieuwe) media om te gaan en zich moet kunnen vinden in specifieke segmenten van het mediaaanbod. Vooral nu onze samenleving steeds diverser wordt, is het van het aller-grootste belang dat die diversiteit erkend en gewaardeerd wordt.' (Lieten, 2010)

In de Beleidsbrief Media 2011-2012 wordt werk gemaakt van de implementatie van mediawijsheid. Budgetten worden vrijgemaakt voor de ondersteuning van Media Kids

Online en Villa Crossmedia, en er wordt een stimuleringsfonds opgericht voor mediawijze projecten. In totaal wordt 650.000 euro uitgetrokken ter ondersteuning van specifieke mediawijsheidsprojecten.

De Conceptnota Mediawijsheid

Een coherent beleid rond mediawijsheid wordt pas echt ontwikkeld in de Conceptnota Mediawijsheid in 2012. De conceptnota is een initiatief van de minister van Media Ingrid Lieten en de minister van Onderwijs Pascal Smet, beide leden van het sociaal-democratische sp.a. De conceptnota heeft de ambitie om een kader te scheppen dat bruikbaar is over de grenzen van deze twee beleidsvelden heen:

‘Mediawijsheid is een thema dat raakt aan diverse aspecten van de beleidsvoering zoals media, innovatie, jeugd, onderwijs, cultuur, welzijn en armoedebestrijding. Deze conceptnota heeft vooral aandacht voor het snijvlak mediabeleid en onderwijsbeleid, maar is tegelijk een uitnodiging naar een verbreding van de samenwerking en beleidsmatige aanpak.’ (Lieten & Smet, 2012)

In deze conceptnota wordt mediawijsheid gedefinieerd als:

‘Mediawijsheid is het geheel van kennis, vaardigheden en attitudes waarmee burgers zich bewust en kritisch kunnen bewegen in een complexe, veranderende en gemediatiseerde wereld. Het is het vermogen tot een actief en creatief media gebruik dat gericht is op maatschappelijke participatie.’ (Lieten & Smet, 2012)

Deze definitie geeft duidelijk de filosofie en toon van de hele conceptnota weer. De conceptnota gaat uit van een neutrale visie op de rol van media in de samenleving. Ze start met de observatie dat onze visie op de wereld beïnvloed wordt door media en dat burgers zich hiervan bewust moeten zijn. De conceptnota stelt dat burgers actiever worden in hun gebruik van nieuwe digitale media en benadrukt daarom ‘het vermogen tot actief en creatief mediagebruik’. De conceptnota vertrekt duidelijk vanuit een emancipatorische ‘empowermentgedachte’. Het document stelt dat ook met zo veel woorden:

‘Er wordt uitgegaan van een positieve pedagogie/benadering, die niet vertrekt vanuit angst en vanuit verbieden, maar vanuit een emanciperende visie waarin je de media gebruikt om jezelf uit te drukken.’ (Lieten & Smet, 2012)

Een belangrijk aandachtspunt is dus de actieve gebruiker van media, waarbij ervan wordt uitgegaan dat vooral jongeren ‘vandaag opgroeien als de native speakers van een digitale game-cultuur’ (Lieten & Smet, 2012). Met andere woorden: vooral jongeren bezitten reeds een aantal vaardigheden om deel te nemen aan de digitale wereld. De conceptnota is daarbij niet blind voor sommige negatieve aspecten van media, noch voor zekere ‘gevaren’ verbonden aan sociale en interactieve media, zoals *cyberbullying*,

sexting, grooming et cetera. Ze streeft echter ‘naar een evenwicht tussen “emanciperen” en “beschermen”’ (Lieten & Smet, 2012). Daarbij is echter duidelijk dat mediawijsheid gekoppeld wordt aan een verhoogde zelfregulering door het individu. De conceptnota stelt onomwonden:

‘In plaats van het antwoord te zoeken in een veelheid van regelgevende maatregelen is het echter de bedoeling burgers in de eerste plaats weerbaar, alert en kritisch te maken. Zoveel mogelijk worden er vanuit een gebruikersblik suggesties aangereikt die helpen om verschillende media positief en zelfstandig aan te wenden.’ (Lieten & Smet, 2012)

De conceptnota identificeert vier strategische doelstellingen die centraal staan in het huidige beleid over mediawijsheid. We vatten de doelstellingen als volgt samen:

1. *Het creëren van een duurzaam en strategisch kader voor mediawijsheid.* Hierbij is de conceptnota enkel de start van een breder scala aan activiteiten die meerdere stakeholders en beleidsvelden moet omvatten. Het document beschrijft de verschillende instellingen en actoren en hun mogelijke rol in mediawijsheid.
2. *Het stimuleren en verhogen van competenties.* De omgang met media vereist kennis-, vaardigheden-, en attitudecompetenties. Hierbij moet specifieke aandacht uitgaan naar achtergestelde groepen in de samenleving. Het zelfstandig kunnen functioneren wordt gezien als een essentiële voorwaarde om maatschappelijk te kunnen functioneren.
3. *Het creëren van een e-inclusieve samenleving.* Gelijke kansen verzekeren voor alle burgers in de kennismaatschappij van vandaag en morgen wordt gezien als een absolute prioriteit.
4. *Het creëren van een veilige en verantwoorde mediaomgeving.* Vooral voor jongeren wordt dit als belangrijk gezien. Er wordt verwezen naar privacy op sociale media en problemen als cyberbullying. Ouders, vormingsmedewerkers, leraren en mediamaakers kunnen een rol op zich nemen binnen deze problematiek.

Onderwijs speelt een centrale rol in de realisatie van deze doelstellingen. Mediawijsheid wordt duidelijk gezien als een transversaal thema dat verschillende beleidsvelden omvat en een groot aantal actoren raakt. Op Vlaams beleidsniveau verwijst de conceptnota naar media, onderwijs, jeugd, cultuur, welzijn, innovatie en armoedebestrijding. Op nationaal beleidsniveau wordt de link gelegd met sociale integratie, armoedebestrijding, sociale economie en stadsontwikkeling. Op stedelijk gebied wordt onder andere verwezen naar lokale publieke toegang tot media en nieuwe media. De conceptnota verwijst tevens naar de rol van de regulator, de openbare omroep, de commerciële televisie en de radiosector, de geschreven pers, telecomoperatoren, de game-sector, hoger onderwijs en universiteiten, volwassenenonderwijs, kunsonderwijs en de lerarenopleiding (Lieten & Smet, 2012).

De conceptnota maakt ook melding van de idee van de oprichting van een kenniscentrum voor mediawijsheid en lijkt te suggereren dat een zelfstandige organisatie zal worden opgezet. Het document stelt dat:

'Dit kenniscentrum zal in de eerste plaats voortwerken op de al bestaande maar verspreide initiatieven en expertise, deze meer op elkaar afstemmen en acties ondernemen wanneer de bestaande initiatieven niet voldoen of leemtes vertonen. Daarnaast zal het centrum een sensibiliserende functie hebben met aandacht voor de noden van specifieke doelgroepen. De opgebouwde kennis moet hierbij ook volop doorstromen naar alle relevante actoren in de media-, cultuur-, en onderwijswereld. (...) Het kenniscentrum Mediawijsheid is een kleine, flexibele organisatie die middels een overeenkomst met de Vlaamse overheid, (...), een financiering voor personeel en werking krijgt, gekoppeld aan een welomschreven opdracht, die zal worden geëvalueerd.' (Lieten & Smet, 2012)

Rol van de publieke omroep – Beheersovereenkomst 2012-2016

In de Beleidsbrief Media 2011-2012 – die voorafgaat aan de publicatie van de conceptnota – wordt reeds vermeld dat mediawijsheid in de educatieve opdracht van de openbare omroep Vlaamse Radio- en Televisieomroeporganisatie (VRT) zal worden opgenomen. In de Conceptnota Mediawijsheid wordt hier eveneens naar verwezen:

'De VRT kan haar educatieve rol ten volle spelen in het mediawijsheidsverhaal. Zij kan in de diverse programma's en over de verschillende netten heen meewerken aan het stimuleren van de diverse competenties en daarbij ruimte geven aan luisteraars en kijkers om zelf mediacontent te creeëren. Ook kan de VRT een aangepast aanbod brengen om minder vaardige mediagebruikers vertrouwd te maken met nieuwe mediatoepassingen en kan zij haar media-archief openstellen voor een zo breed mogelijk gebruik en publiek.' (Lieten & Smet, 2012)

Deze visie wordt rechtstreeks vertaald in de Beheersovereenkomst 2012-2016 tussen de Vlaamse overheid en de openbare omroep VRT. Deze beheersovereenkomst is bindend en bepaalt de missie en doelstellingen van de openbare omroep én de indicatoren waaraan dit gemeten zal worden. In verband met mediawijsheid stipuleert de overeenkomst dat:

'SD 23: De VRT draagt in het verlengde van haar educatieve opdracht bij tot de mediawijsheid van de Vlaming.'

OD23.1: De VRT draagt bij tot een democratische en mediabewuste houding via onafhankelijke informatie over de werking van de media en via inclusief generalistische programma's die burgers kritisch en bewust met media leren omgaan. De VRT wijst in haar algemene programmering de burger op de mogelijkheden en risico's van mediatoepassingen (...) en aspecten van mediagebruik (...).

OD23.2: De VRT werkt actief samen met andere stakeholders om mediawijsheid te bevorderen. Binnen het jaar na de inwerkingtreding van deze overeenkomst moet dit leiden tot een concreet actieplan.

OD23.3: De VRT brengt een aangepast aanbod voor kinderen, jongeren en digitale inwijkelingen om hen vertrouwd te maken met (nieuwe) mediatopepassingen. De VRT biedt specifiek voor deze groepen de kans zelf te experimenteren met creatie en co-creatie van media.

OD23.4: Binnen haar budgettaire en programmatorische mogelijkheden, schrijft de VRT zich in, in het beleid van de Vlaamse Regering rond mediawijsheid' (VRT, 2012)

De VRT zet deze drie operationele doelstellingen om in een eigen Actieplan Mediawijsheid dat concreet aangeeft binnen welke programma's welke aspecten van mediawijsheid worden behandeld. Dit wordt het sterkst uitgewerkt voor kinderen, jongeren en digitale inwijkelingen (VRT, 2013). Een belangrijk punt is tevens dat de VRT duidelijk aangeeft dat het ook intern zal werken aan mediawijsheid:

'Daarnaast maakt de VRT haar medewerkers attent op het belang van mediawijsheid en informeert hen over het integreren ervan in het aanbod.' (VRT, 2013)

Oprichting en opdracht Kenniscentrum Mediawijsheid – Mediawijs.be

In de zomer van 2012 lanceert minister Lieten een Oproep tot het indienen van projectvoorstellingen ter inrichting van een Kenniscentrum Mediawijsheid (Departement CJS, 2012). De opdracht wordt hierin omschreven als:

'Het Kenniscentrum Mediawijsheid stimuleert de kennisopbouw en -deling bij organisaties en werkers in het brede veld van mediawijsheid. Het Kenniscentrum biedt praktijkondersteuning en werkt aan praktijkontwikkeling. Het Kenniscentrum Mediawijsheid werkt actief samen met de relevante stakeholders uit de overheid en het veld en bevordert de dialoog en samenwerking tussen die stakeholders.' (Departement CJS, 2012)

De strategische en operationele doelstellingen van het kenniscentrum worden hierin specifiek uitgewerkt:

'Organisaties uit het veld worden adequaat ondersteund en begeleid in de ontwikkeling van hun kennisopbouw en hun praktijkontwikkeling.'

- Het up-to-date houden van de veldtekening Mediawijsheid waarin het veld met zijn behoeften, werkvormen en organisaties werd gedocumenteerd. (...)

- Kerngegevens over de stand van zaken en trends binnen mediawijsheid ter beschikking stellen van sector en overheid. Het Kenniscentrum maakt onderzoek en publicaties bruikbaar voor de sector.
- Het Kenniscentrum moet dicht bij het werkveld staan om de vinger aan de pols te houden van wat er leeft en waar er nood aan is. (...)
- Innovatieve praktijken en trends worden proactief opgezocht en ontsloten voor de sector teneinde de organisaties en de werkers binnen de lerende gemeenschap tot vernieuwing te inspireren.
- Het Kenniscentrum neemt initiatieven om opleiding, wetenschappelijk onderzoek en praktijk bij elkaar te brengen.
- Het Kenniscentrum neemt initiatieven om het veld kansen aan te reiken om zich bij te scholen en hun kennis aangaande mediawijsheid te verdiepen, te verbreden en te delen.
- Het Kenniscentrum biedt mogelijkheden tot structureel overleg en tot het creëren van samenwerkingsverbanden (...). De Vlaamse overheid vindt in het Kenniscentrum een partner voor haar beleidsvoorbereidende en beleidsuitvoerende opdracht.
- Het Kenniscentrum reikt de overheid actuele informatie aan over de staat van het veld.
- Het Kenniscentrum biedt voor de Vlaamse overheid een platform om beleidsinitiatieven af te toetsen en partnerships aan te gaan. Het mediawijsze denken en handelen zijn verder verspreid.
- Het Kenniscentrum maakt werk van een actieve, up-to-date en op maat ontsluiting van haar werking, van de beschikbare kennis en van het relevante onderzoek voor het brede publiek.
- Het Kenniscentrum verwijst via haar kanalen door naar de relevante actoren in het veld.
- Het Kenniscentrum onderneemt sensibiliserende acties t.a.v. de brede sector en/of de mediagebruiker.' (Departement CJS, 2012)

Hierbij is het duidelijk dat de overheid een intermediaire organisatie op het oog heeft die:

'(...) in eerste instantie een beroep doe(t)(n) op bestaande initiatieven, hun kennis en kunde mobiliseren en beter bekend maken bij de betrokkenen. (...) Kortom, het Kenniscentrum Mediawijsheid moet dus niet "ontdubbelen" wat reeds bestaat, maar wel complementair en versterkend werken.' (Departement CJS, 2012)

Uiteindelijk dienen drie consortia een voorstel in. Een consortium georganiseerd vanuit iMinds⁵ (een innovatiehub gesubsidieerd door de Vlaamse overheid), met dertien partners uit het maatschappelijke werkveld, Vlaamse universiteiten en hogescholen⁶ wordt uiteindelijk gekozen om het Kenniscentrum Mediawijsheid vorm te geven. Het voorstel van dit consortium zet inhoudelijk een aantal lijnen uit die ge-

baseerd zijn op de strategische doelstellingen van de Conceptnota Mediawijsheid. Daarnaast wordt aandacht besteed aan het opzetten van een organisatie die op zeer korte termijn van start kan gaan. Door vijf experten deeltijds te detacheren uit de indienende partners is het mogelijk dat de mensen met de gepaste expertise het kenniscentrum op zeer korte termijn vormgeven (IBBT, 2012). De opdracht van het Kenniscentrum Mediawijsheid wordt na onderhandeling tussen de partners en de overheid vormgegeven in een overeenkomst die ingaat op 1 januari 2013. In deze overeenkomst worden de strategische en operationele doelstellingen die in de oproep werden opgenomen in meetbare indicatoren omgezet (Vlaamse Regering, 2012).

Regering-Bourgeois I 2014-2019: consolidatie van het beleid

Regeerakkoord en beleidsnota

De regering-Bourgeois I is een regering van conservatief nationalisten N-VA, christendemocraten CD &V en liberalen VLD. De ambtstermijn van deze regering begint in het najaar van 2015. Het Vlaams Regeerakkoord 2014-2019 verwijst slechts kort naar mediawijsheid en de rol van het kenniscentrum:

‘Mediawijsheid en digitale geletterdheid zijn essentieel. We werken de digitale kloof weg. Ook kwetsbare doelgroepen moeten voldoende mediatoegang hebben en mediageletterd zijn. (...) Mediagebruikers moeten bovendien de nodige vaardigheden verwerven om met nieuwe (sociale) media om te gaan. Het Kenniscentrum Mediawijsheid moet de ruimte krijgen om een gecoördineerd beleid te voeren in samenwerking met de betrokken partners en met andere beleidsdomeinen, zoals onderwijs, welzijn en cultuur.’ (Vlaamse Regering, 2014a)

In de Beleidsnota Media wordt echter duidelijk dat de liberale minister van Cultuur, Media, Jeugd en Brussel Sven Gatz sterk inzet op mediawijsheid (Gatz, 2014c). De eerste strategische doelstelling van de nieuwe minister is gericht op de actieve gebruiker en zijn competenties om met media om te gaan:

‘Het mediabeleid waar ik wil op inzetten, vertrekt in de eerste plaats van de gebruiker. Deze moet bewust en kritisch met media kunnen omgaan, zeker in de hedendaagse digitale breedbandomgeving, waar gebruikers de media niet enkel passief ondergaan maar er ook actief aan participeren. Actieve deelname aan de media veronderstelt toegankelijke en betaalbare media. Ik wil daarnaast via een gepast mediawijsheidsbeleid alle gebruikers klaarstomen voor de digitale maatschappij. (...)

In deze nieuwe legislatuur ga ik actief inzetten op het verhogen van de mediawijsheidscompetenties van de Vlaamse burger zodat deze maximaal mee kan in de snel veranderende internationale mediaomgeving. Met de verdere uitbouw van

een proactief en toekomstgericht Vlaams mediawijsheidsbeleid wil ik anticiperen op aankomende trends en nieuwe vormen van media.' (Gatz, 2014c)

Daarbij wordt specifieke aandacht geschenken aan het dichten van de digitale kloof van de tweede graad:

'Ik wil er de komende jaren voor zorgen dat, naarmate de kloof afneemt tussen mensen die wel en geen toegang hebben tot digitale media, ook de kloof gedicht wordt tussen mensen die wel of niet weten hoe ze ermee moeten omgaan. Met het oog daarop zal ik de komende jaren blijven inzetten op het Kenniscentrum Mediawijsheid en op een verruimde, toekomstgerichte versie van het leesbevorderings-project "Kranten in de Klas".' (Gatz, 2014c)

Ook in de Beleidsnota Jeugd en de Beleidsnota Cultuur wordt verwezen naar het belang van mediawijsheid in deze sectoren (Gatz, 2014a, 2014b). Het toont aan dat mediawijsheid gezien wordt als een transversaal thema dat men op een geïntegreerde wijze tracht aan te pakken. In de Beleidsnota Jeugd wordt extra nadruk gelegd op digitale en sociale media (Gatz, 2014b).

Rol van de publieke omroep – Beheersovereenkomst 2016-2020

Ook in de nieuwe Beheersovereenkomst 2016-2020 tussen de Vlaamse Regering en de publieke omroep VRT wordt mediawijsheid opgenomen. In de algemene introductie wordt mediawijsheid gekaderd in het actiever worden van de modale mediagebruiker én in het toenemend belang van digitale media in het dagelijks leven:

'De mediagebruiker is ook niet langer een passieve ontvanger van programma's. Hij heeft toegang tot platformen die het toelaten om zelf producent en/of omroep te zijn. Hij kan, en dat gebeurt in toenemende mate, content uitwisselen via allerlei peer-to-peer mechanismen, feedback geven aan de VRT, positief en negatief, en dat heeft het potentieel van een interessante dialoog tussen mediagebruikers en professionele mediamakers.(...)

Tegen die achtergrond, en gegeven het toenemende belang van digitale media en digitale communicatie in het dagelijkse leven, in de relaties tussen burger en overheid, in de economie, zorg, onderwijs, enz. is "mediawijs zijn" een belangrijke competentie voor de Vlaming. Mediagebruikers in alle groepen van de samenleving moeten bewust, kritisch en actief met media kunnen omgaan. De publieke omroep dient zich daar bewust van te zijn en bij te dragen aan de mediawijsheid.' (VRT, 2016)

De concrete opdracht van de VRT omtrent mediawijsheid wordt in deze beheersovereenkomst minder sterk uitgewerkt dan in de vorige. Algemeen wordt bepaald dat '(d)e VRT (bij)draagt (...) tot de mediawijsheid van de Vlaamse mediagebruiker' (VRT,

2016). Na een aantal algemene bepalingen vertrouwt de regering erop dat de VRT zijn intern beleidsplan verder uitwerkt:

‘De VRT bevordert mediawijsheid door aandacht te hebben voor de toegang tot media, de vaardigheden om media te gebruiken en het kritische begrip van media.

De VRT helpt het publiek om de mogelijkheden van het digitale medialandschap te benutten, er kritisch mee om te gaan, door een gids te zijn naar betrouwbare bronnen en door interactie met het publiek. Projecten die zich specifiek richten op kinderen, jongeren en digitale inwijkelingen zijn daarbij aandachtspunten.

De VRT organiseert op regelmatige basis overleg met de partners op het veld, zoals het Kenniscentrum Mediawijsheid en onderwijs.

Het Actieplan Mediawijsheid van de VRT is de leidraad voor wat ze op het vlak van mediawijsheid doet.’ (VRT, 2016)

Tweede overeenkomst Kenniscentrum Mediawijsheid – Mediawijs.be

De eerste overeenkomst tussen de Vlaamse Regering en iMinds met betrekking tot de inrichting van het Kenniscentrum Mediawijsheid loopt van 2013 tot eind 2014. De regering-Bourgeois I en zijn minister van Media Sven Gatz moeten dus beslissen of het Kenniscentrum Mediawijsheid voortgezet wordt en in welke vorm. In zijn Beleidsnota Media benadrukt Gatz het belang van mediawijsheid én het belang van het Kenniscentrum Mediawijsheid:

‘Om de Vlaamse mediagebruikers te helpen verstandig met hun privacy om te springen, krijgt het Kenniscentrum Mediawijsheid in samenspraak met allerlei betrokken organisaties in beleidsterreinen als Onderwijs, Welzijn of Jeugd meer armenslag.’ (Gatz, 2014c)

In overleg tussen het Kenniscentrum Mediawijsheid en de minister wordt een nieuwe overeenkomst gesloten voor de periode 2015-2017 (Vlaamse Regering, 2014b). Input voor deze overeenkomst zijn de White Paper Mediawijsheid (Vanhoucke, 2014) die tot stand kwam in overleg met de ruime sector én de Visietekst 2015-2017 (Mediawijs.be, 2014) waarin het Kenniscentrum Mediawijsheid zelf voorstellen doet voor zijn werking in deze periode. De overeenkomst voorziet een sterkere coördinerende rol voor het kenniscentrum, zet in op meer samenwerking met de media-industrie, voorziet een sterkere publieke rol met onder andere eigen campagnes gericht op een breed publiek, en verwacht dat het kenniscentrum een grotere rol speelt in het publieke debat. Daarnaast blijft het de opdracht uitvoeren die reeds in grote mate was vastgelegd in de vorige overeenkomst. Het budget van het kenniscentrum wordt verhoogd van 450.000 euro naar 600.000 euro op jaARBasis. Naast de intermediaire rol die het

Kenniscentrum Mediawijsheid speelde onder de eerste overeenkomst, moet het centrum voortaan ook een sterkere en eigen publieke rol gaan spelen.

Conclusie

In Vlaanderen neemt het parlement halverwege het eerste decennium van de eenentwintigste eeuw het voortouw in de discussie rond mediawijsheid. Opmerkelijk daarbij is dat deze discussie verbonden is met eerder negatieve effecten van media op jongeren, zoals het geweld in games, filmkeuring en de nood aan bescherming van minderjarigen, en het probleem van opinievorming bij het gebruik van digitale media. Dit leidt echter niet tot een protectionistische houding ten aanzien van mediawijsheid of tot discussies over strengere regulering. Vanaf het begin van de discussie over mediawijsheid wordt gepleit voor een emancipatorische empowermentaanpak. De duale houding tussen een *beschermende houding* en een *emancipatorische grondslag* blijft echter een inherente karakteristiek van de discussie. Dit lijkt ingegeven door twee overwegingen die steeds opduiken in de discussies:

1. In een sterk veranderende digitale mediaomgeving is een strenge controlerende regulering moeilijk en waarschijnlijk niet meer effectief.
2. De overtuiging dat het individu in staat is om op een verstandige en autonome manier met media om te gaan.

De Vlaamse discussie rond mediawijsheid – en het beleid zoals onder andere vormgegeven in de Conceptnota Mediawijsheid – is daarmee in lijn met meer recent theoretisch werk rond mediawijsheid in de culturalistische traditie, dat uitgaat van de autonomie van het publiek in haar relatie met media (Hobbs, 2011; Hoechsmann & Poyntz, 2012). Mediawijsheid wordt gezien als een manier om de kritische competenties van gebruikers te ondersteunen in afwezigheid van strikte mediaregulering (O'Neill, 2010; Wallis & Buckingham, 2013). In het beleid blijft de beschermende reflex echter sterker aanwezig dan in de vaak overoptimistische theorievorming.

In de beleidsbrief van minister Peeters uit 2008 wordt mediawijsheid voor het eerst ingevoerd in het formele beleid. In de beleidsbrief wordt vooral de nadruk gelegd op kritische vaardigheden die de burger in staat moeten stellen informatie te plaatsen en naar waarde te schatten. In latere beleidsteksten én vooral in de Conceptnota Mediawijsheid wordt – naast deze kritische competenties – ook aandacht besteed aan de creatieve en communicatieve vaardigheden verbonden aan het *maken/produceren* van media. Dit sluit opnieuw aan bij moderne visies op mediawijsheid die uitgaan van een autonoom individu dat *empowered* wordt om op een *creatieve* manier om te gaan met media. Wat in de Vlaamse context wel opvalt, is dat de verwijzing naar burgerschap – vaak aanwezig in de theorievorming en politieke argumentaties rond mediawijsheid – minder voorkomen in de discussies en beleidsteksten. De nadruk ligt in het algemeen op maatschappelijke participatie en veel minder op politieke participatie.

Wel een constante is dat in het beleid steeds aandacht is voor achtergestelde en specifieke doelgroepen.

Om haar beleid rond mediawijsheid vorm te geven gebruikt de Vlaamse overheid twee centrale instrumenten:

1. Ze richt ze een Kenniscentrum Mediawijsheid op dat verantwoordelijk is voor het stimuleren van mediawijsheid in Vlaanderen.
2. Ze schrijft mediawijsheid in als kernopdracht in het educatieve luik van de openbare omroep.

Dit is een relatief unieke constellatie, zeker in een Vlaamse context waarin de openbare omroep een belangrijk marktaandeel heeft. Bij aanvang moet het kenniscentrum een *intermediaire* speler zijn die bestaande initiatieven versterkt en coördineert. Door mediawijsheid in te schrijven in de opdracht van de openbare omroep verzekert de Vlaamse overheid dat mediawijsheid mee opgenomen wordt door een media-instelling die een groot bereik heeft naar een algemeen publiek én tot kinderen en jongeren via haar jeugdzender.

Noten

- 1 Bij een zoekopdracht naar ‘mediawijsheid’ in de databank van het Vlaams Parlement is het oudste resultaat van 2002. Mediawijsheid verwijst hier echter naar de grote ervaring van een van de deelnemers met de mediasector. Het debat van mediawijsheid start dus echt in 2006. De term ‘mediawijsheid’ komt in de databank 579 keer voor sinds 2006. De term ‘mediageletterdheid’ komt sinds 2004 92 keer voor. De term ‘media-educatie’ 80 keer sinds 1995 en de term ‘mediaopvoeding’ 46 keer sinds 1997. Het is dus duidelijk dat vanaf 2005-2006 het debat losbreekt. ‘Mediawijsheid’ is de dominant gebruikte term en ‘mediageletterdheid’ wordt vaak als synoniem of in eenzelfde debat/context gebruikt.
- 2 Op 22 september 2008 stapt Geert Bourgeois (N-VA) op als minister van Bestuurszaken, Buitenlands Beleid, Media en Toerisme na een breuk in het kartel CD &V-N-VA. De minister-president Kris Peeters (CD &V) neemt voor de resterende periode van de regering-Peeters I de bevoegdheden van Bourgeois over. De NV-A steunt de regering niet meer.
- 3 Katia Segers is professor in de communicatiewetenschappen aan de Vrije Universiteit Brussel. Van 2008 tot 2014 was ze voorzitter van de raad van bestuur van de Vlaamse Regulator voor de Media. Vanaf 2014 is ze Vlaams parlementslid voor de sp.a. Ze is tevens lid van de Commissie Media.
- 4 In Vlaanderen is er een onderscheid tussen een beleidsnota en een beleidsbrief. De beleidsnota zet het beleid van een minister uit voor de gehele legislatuur. Een beleidsbrief zet het specifieke beleid uit voor een periode van twee jaar.
- 5 Ten tijde van het voorstel heette iMinds nog IBBT (Interdisciplinair Instituut voor Breedband Technologie). De overeenkomst wordt ondertekend tussen de Vlaamse overheid en iMinds.
- 6 Deze partners zijn: SMIT-Vrije Universiteit Brussel, MICT-UGent, Cemeso-Vrije Universiteit Brussel, ICRI-Katholieke Universiteit Leuven, Javi-Jeugdwerknet vzw, Katholieke Hogeschool Limburg, LINC vzw, MAKs vzw, MIOS Universiteit Antwerpen, Provinciale Hogeschool Limburg, REC Radiocentrum, Thomas More Hogeschool, Stuurgroep Volwassenenonderwijs.

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Developing Digital Skills and Competences: A Quick-Scan Analysis of 13 Digital Literacy Models

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Developing Digital Skills and Competences: A Quick-Scan Analysis of 13 Digital Literacy Models

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Abstract: The development of digital literacy has become a key element on the agenda of scholars, practitioners and policymakers worldwide. To this end, actors in the field often make use of conceptual models on digital literacy. As these models inevitably play a role in shaping the public debate on digital literacy, it is important to gain insights into the concepts and ideas they put forward. This article aims to: (1) unravel the complexity and diversity of concepts regarding digital skills, literacies and competences; (2) identify the concepts promoted in 13 selected models on digital literacy; and subsequently (3) analyse the concepts that shape and/or dominate the scholarly and public debate on digital literacy. The results of this article are based on a literature review and quick-scan analysis of 13 digital literacy models that have been published and used by actors in the field between 2004-2014. The frameworks were mapped in a matrix and compared on the basis of 39 indicators, clustered in five categories: operational, technical and formal; information, cognition; digital communication; digital content creation; and strategic. The results of the analysis point towards an unbalanced focus on certain skills and competences, with particular emphasis on a series of operational, information-searching, and communication skills.

Keywords: digital literacy, digital skills, digital competences, conceptual model

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Introduction

The ongoing digitization of services – both public and private – has led to an increased risk amongst the general population of being or becoming digitally excluded (Helsper & Reisdorf, 2016; Mariën & A. Prodnik, 2014; van Deursen & van Dijk, 2014). This so-called digital turn poses a threat to all individuals who do not have the necessary skills to handle the digitization of the various life domains (Helsper, 2011). Recent studies have shown that the socio-economic background of individuals is no longer solely responsible for digital exclusion, and that mechanisms of digital exclusion go beyond socio-economic vulnerable groups (Schurmans & Mariën, 2013). Moreover, research by experts in the field, such as van Deursen and van Dijk (2014) and Helsper and Eynon (2013), highlights that digital skills and competences, and the ability to make use of digital media in an autonomous and strategic way, are of increasing importance to ensure users' full societal participation.

This emphasis placed on the growing importance of digital skills and digital literacies contrasts with the lack of clarity and the lack of distinction made between the various types of digital skills, literacies and competences used in research, education or the field of e-inclusion: "The most immediately obvious facts about accounts of digital literacy are that there are many of them and that there are significantly different kinds of concepts on offer" (Lankshear & Knobel, 2008, p. 2). The development of digital skills and competences has, however, become a key element on the agenda of scholars, practitioners and policymakers worldwide in order to ensure citizens' ability to fully participate in today's increasingly digitized society. To this end, actors in the field often make use of conceptual models on digital literacy. As these models inevitably play a role in shaping the public debate on digital literacy, it is important to gain insights into the concepts and ideas they put forward.

This article therefore aims to (1) unravel the complexity and diversity of concepts regarding digital skills, digital literacies, and competences; (2) identify the concepts promoted, or chosen to be left out, in 13 selected digital literacy models that have been published and used by actors in the field over the period of ten years, between 2004-2014; and subsequently (3) analyse the concepts that currently shape and/or dominate the scholarly and public debate on digital literacy.

Unravelling digital literacy concepts

Digital literacy, skills, and competences: what's the difference?

A first aspect that requires clarification is the conceptual difference between digital skills, literacies and competences. Too often these concepts are used as synonymous, while they are distinct in meaning (Martin & Grudziecki, 2006, p. 256). Ala-Mutka (2011, p. 18) defines competence as “the ability to apply knowledge and skills to different contexts, such as work, leisure, or learning”. According to the work of van Deursen (2010), literacy refers to certain competences and knowledge, whereas skills refer to the more technical aspects of these competences and knowledge. In his dissertation on Internet skills, van Deursen (2010, p. 71) distinguishes between four types of practice-oriented skills: (1) *operational skills*, or the so-called ‘button knowledge’ that refers to the operational manipulation of computer and Internet software and hardware; (2) *formal skills*, or the ability to understand and use formal characteristics of computer and Internet, such as hyperlinks or move between Internet pages; (3) *information skills*, or the skills required to search, select, handle and critically evaluate Internet and digital media contents; and (4) *strategic skills*, or the capacity to use Internet to one’s personal advantage. In his later work on Internet skills, a fifth and sixth type of skills, namely *communication skills* and *content creation skills*, were added to make reference to the skills needed to participate in online networks, online communication strategies and the practical skills needed to create and distribute content on the Internet (van Deursen, Helsper, & Eynon, 2014; van Dijk & van Deursen, 2014). A similar practice-oriented interpretation of skills is used in the European Qualifications Framework (European Commission, 2008, p. 11). In this framework, the distinction is made between knowledge, skills and competence. Knowledge is defined as “the body of facts, principles, theories and practices related to a field of work or study”. Skills are referred to as “the ability to apply this knowledge”, whereas competence is seen as “the proven ability to use these sets of knowledge and skills for one’s personal development”.

Digital skills are consequently to be seen as the more practical and measurable outcomes of media, information or digital literacies. The conceptualisation of digital literacy in Martin and Madigan (2006, p. 255) confirms this distinction between skills and literacies: “Digital literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesise digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life

situations, in order to enable constructive social action; and to reflect upon this process”. However, this interpretation of digital literacy also highlights the overall complexity of the different types of skills that can be classified as digital skills. In the definition discussed above, reference is made to a variety of aspects, ranging from mere access to more sophisticated elements such as integration, evaluation, and analysis of media contents. When studying digital skills, literacies or competences, it is crucial to take into account the conceptual distinction, and their overall complexity and multi-layered character.

A second aspect that adds to the conceptual confusion is the convergence between media literacy, transliteracy and digital literacy. It is clear that, at present, no consensus has been reached on how these different concepts relate to one another, where they overlap and where they may be incorporated by an overarching concept. In this context, media literacy has been defined as “an ability to deal with information formats ‘pushed’ at the user” (Bawden, 2008, p. 30). However, when users have to deal with information ‘pull’, other types of literacy may come into play, such as information, or moral and social literacy (Lankshear & Knobel, 2008). Potter (2004, p. 58) defines media literacy as “the set of perspectives from which we expose ourselves to the media and interpret the meaning of the messages we encounter”. The conceptual convergence is accentuated again in the four main areas of media literacy action that can be identified: access and usage, understanding, critical evaluation, and creativity (Buckingham, 2003; DTI, EAVI, & European Commission, 2011). These constitute a skills-based approach to media literacy (Livingstone, 2004; Potter, 2004) which guides the large majority of research initiatives on the subject. However, Hoechsmann and Poyntz (2012) claim that the meaning and effects of media extend well beyond questions of skills, and that more fundamental questions regarding the social and political influence of media on our lives are required. Other authors try to integrate the different forms of literacy into one single concept. To this end, Frau-Meigs (2012) introduces the concept of transliteracy, which she defines as: (1) the ability to embrace the full layout of multimedia which encompasses skills for reading, writing and calculating with all the available tools (from paper to image, from book to wiki); (2) the capacity to navigate through multiple domains, which entails the ability to search, evaluate, test, validate and modify information according to its relevant contexts of use (as code, news and document).

However, this article does not aim to provide an answer to these conceptual debates on knowledge, skills, competence or the different types of literacy. The goal is to examine and compare 13 existing digital literacy

models, through a common set of indicators. In the context of this article, digital literacy models are comprised of knowledge, skills, and competences. We refer to knowledge as the information, awareness, and understanding that users have of the existence and usage of different digital tools. In line with the literature previously considered, we define digital skills as the more practical, measurable application of certain knowledge and aptitudes in digital usage. Digital competence is discussed as the ability to apply said knowledge and skills to various life contexts, from personal to professional. To this end, digital literacy compiles the awareness, practical skills, and competences necessary for users to access, understand, evaluate, communicate with others, and create digital content in a strategic and applied manner, towards the fulfilment of personal and professional goals.

From operational skills to digital content creation and beyond

The previous section has already pointed towards the difficulty in identifying and defining the different types of skills that can be discussed within the digital literacy framework. The model of van Deursen (2010) was mentioned explicitly because it is one of the few frameworks that is complete and accessible at the same time. The DIGCOMP framework developed by Ferrari (2013) is exhaustive, but less applicable due to its underlining complexity. Whereas the model of van Deursen is built around six types of clear and practice-oriented skills, the DIGCOMP model comprises five areas of digital competences and a total of 21 different types of competences. Each of these 21 competences is subsequently translated into three proficiency levels (cf. foundation, intermediate, and advanced) and a number of practice-oriented interpretations in terms of desired knowledge, skills, and attitudes. The dissertation of van Deursen (2010) is mainly built upon the work of Steyaert (2002) and van Dijk (2005), but mentions a considerable number of existing models and interpretations of digital skills that are subsequently used to provide a detailed description of each type of skill and underpinning activity. The same applies for the DIGCOMP model developed by Ferrari (2013), which refines the mapping exercise on digital competences put forward by Ala-Mutka (2011).

The goal of this article is not to provide a detailed overview and description of all existing types of digital skills. There are however a few interpretations that stand out. A first is the categorisation developed by Jenkins (2006), which is interesting because it approaches digital skills from a participatory and community-based perspective. Instead of solely

highlighting individual attributes, Jenkins (2006, p. 4) frames what he calls *new media literacies* as cultural competences and social skills that are developed through collaboration and networking, and defines eleven different new skills:

- *Play*: the capacity to experiment with one's surroundings as a form of problem-solving;
- *Performance*: the ability to adopt alternative identities for the purpose of improvisation and discovery;
- *Simulation*: the ability to interpret and construct dynamic models of real-world processes;
- *Appropriation*: the ability to meaningfully sample and remix media content
- *Multitasking*: the ability to scan one's environment and shift focus as needed to salient details;
- *Distributed Cognition*: the ability to interact meaningfully with tools that expand mental capacities;
- *Collective Intelligence*: the ability to pool knowledge and compare notes with others toward a common goal;
- *Judgment*: the ability to evaluate the reliability and credibility of different information sources;
- *Transmedia Navigation*: the ability to follow the flow of stories and information across multiple modalities;
- *Networking*: the ability to search for, synthesize, and disseminate information;
- *Negotiation*: the ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms.

Jenkins' approach clearly avoids a technologically deterministic viewpoint and, moreover, opens up the skills debate to a number of underpinning but crucial skills and competences such as experimentation, problem-solving capabilities or the ability to pool knowledge and move towards a common goal with others.

A second contribution that is worth mentioning is the categorisation of digital literacy by Eshet-Alkalai (2004, p. 93), which integrates five types of literacies, based upon "a large variety of complex, cognitive, motor, sociological, and emotional skills":

- *Photovisual literacy*: the ability to understand visual representations in online environments, and messages from graphical displays and designs;

- *Reproduction literacy*: the ability to reproduce existing digital content into new meaningful digital content (cf. similar to content-creation skills, but focused on the process of reproduction);
- *Information literacy*: the cognitive skills necessary to critically evaluate media content;
- *Branching literacy*: the ability to read and understand hypermedia and evaluate the quality and validity of media content;
- *Socio-emotional literacy*: the skills needed to understand and apply the rules of online media environments.

The approach promoted by Eshet-Alkalai (2004) also moves away from a mere technology and tool-oriented definition of digital skills. By emphasising cognitive skills and the interpretation of text, image and rules, this approach also opens up the skills debate and brings additional elements into discussion that are crucial to ensure a full take-up and capital-enhancing usage of digital media contents and online environments.

Overall, the models and approaches mentioned above, namely van Deursen (2010), Ferrari (2013), Jenkins (2006), and Eshet-Alkalai (2004), highlight that a broad, but accessible approach is needed, one that simultaneously includes tool-oriented skills such as button knowledge, together with more complex underpinning competences such as collaboration, social, or communication skills. The next section of this article is therefore aimed at identifying the concepts promoted in 13 selected models on digital literacy, and subsequently at analysing which skills, competences, and types of literacies are or are not mentioned across these 13 selected models, and thus shape and/or dominate the scholarly and public debate on digital literacy.

Method: Quick-scan analysis

The research used in the study is the quick-scan analysis. Quick-scan analysis allows for a cross-case exploration of multiple case studies, on the basis of a pre-determined set of variables. The method may be employed at the beginning of a research project in order to determine a set of relevant case studies for the specific field, and obtain a valuable overview of existing research on a topic. A mapping of variables and indicators into a single matrix facilitates the identification and analysis of similarities and variances between them. Consequently, a more in-depth analysis of some of the case studies may be pursued, in order to acquire a deeper understanding of the

interconnections that are suspected or have already been identified between the cases (Van Audenhove, Baelden, & Mariën, 2016).

The method has been chosen for this study as it allows for a fast but systematic way of identifying a set of conceptual models that the field of digital literacy builds upon, as well as the variances between them in terms of the skills and competences they promote. The small case studies in this research are 13 digital literacy models. As they all put forward different sets of skills and competences that individuals require in order to be considered digitally literate, the quick-scan analysis was deemed an efficient method to identify tendencies, similarities, and variances between the models. A close reading of the conceptual models resulted in the identification of 39 indicators, each of which was mentioned in at least one of the models discussed. These indicators were subsequently clustered into a matrix. For each of the indicators, a definition based on the literature review was formulated. The mapping of these indicators into a single matrix enabled a broad overview of the concepts promoted through existing digital literacy models, but also allowed for a cross-case analysis of similarities and variances. In some instances, the matrix also facilitated insights into how these models have conceptually evolved over the years, by tracing certain visual patterns.

The 13 digital literacy models were selected on the basis of several criteria. Firstly, the models needed to be consistently referred to and acknowledged in specialised literature. Secondly, the models had to be relevant to the discussion on digital literacy through conceptual novelty and a comprehensive analysis of a wide range of digital skills and competences. Priority was given to works that promoted their own sets of skills and competences, but that also proposed methods for measuring digital skills, implemented empirical studies of their own, or analysed established theory and empirical research within the digital skills framework. Thirdly, the models needed to be presented, to a certain degree, as frameworks, built upon a classification of knowledge, skills, and competences. Finally, the models had to be published over a period of ten years, between 2004 and 2014. This allowed for a prioritisation of more recent publications, but was also considered a wide enough time span for identifying evolutions in the debate.

It should be noted that some of the selected publications are considerably lengthier and more comprehensive than others. It is important to consider that books on the topic (e.g. Van Dijk & Van Deursen, 2014), extensive academic works (e.g. Belshaw, 2011), or institutional reports (e.g. Ala-Mutka, 2011; Hobbs, 2010) discuss the topic in more detail, and thus consider a wider range of indicators, in comparison to more condensed

works, such as journal articles (e.g. Calvani, Cartelli, Fini, & Ranieri, 2008; Hargittai, 2007). The availability of more details in the original works obviously leads to a more detailed description in our analysis. In other words, variations in the length and depth of the selected publications are inevitably reflected in the matrix.

As mentioned above, the quick-scan analysis of the 13 selected cases resulted in a matrix that contains 39 indicators (See: Appendix, Table 1). The cases are mapped in columns, while the indicators are placed in rows. The indicators have been divided into five categories: operational, technical and formal; information, cognition; digital communication; digital content creation; and strategic. An additional column has been introduced in order to count the amount of cases where each indicator is present. The matrix is an efficient tool for the cross-analysis of the cases as it provides a visual statement of which indicators have scored higher, and which lower.

Finally, once the matrix was composed, the 13 cases were analysed. The aim of the analysis was to identify similarities and differences between the models; evolutions over time; and which indicators are well and less well represented. It should be noted that while at times numbers are used (e.g. x number of models mention y indicator), the analysis is not a statistical exercise. Numbers are used strictly to indicate variances between models and indicators more clearly. The study does not make use of any statistical programmes or other techniques to detect correlations; the findings result from a visual analysis of the matrix, which is already based on a thorough literature review, and may be complemented by in-depth knowledge of the case studies.

Conceptual highlights and differences in 13 digital literacy models

The matrix serves for the cross-case analysis of the 13 digital literacy models on two levels (Van Audenhove et al., 2016). A first level of analysis is performed on the horizontal, between the different variables in the cases. This places focus on the indicators themselves, and aims to answer the question: *What indicators score high/low?* The analysis can further lead to questions regarding the reasons behind the findings, but can point towards the right method to answer these questions: *Can this be explained through more in-depth case studies? Can it be explained on the basis of the literature review? Does it confirm what was found in the initial literature review?* (Van Audenhove et al., 2016, p. 7). A second level of analysis asks the question: *Why are certain indicators absent?* (Van Audenhove et al., 2016, p. 7).

Answers to this have also been sought in the extensive literature review, by investigating what the conceptual underpinnings of the models are, and whether they can explain the absence of certain indicators. Similarly, enhanced attention has been paid to the period in which the models had been developed or published, in an attempt to explain the findings through developments in ICT, education, policy or other relevant contextual factors.

Not all the indicators that were identified and integrated into the matrix are discussed in this section. Priority has been given to findings that were deemed most relevant to the discussion on measuring and promoting digital skills and competences. An overview of the indicators, and the degree to which they are present in the different digital literacy models, can be found in the figures inserted after the discussion on each category of skills and competences, while an extended version of the matrix, together with more detailed definitions for each of the indicators used can be found in the report on Reconsidering Digital Skills (Iordache, Baelden, & Mariën, 2016). In the discussion on the findings, reference will be made to the extent to which indicators are mentioned in the different cases. When indicators are mentioned in more than 11 models, they are present in ‘many or a large amount’ of models. When they are identified by 7 to 10 models, they are part of a ‘fair amount’ of models and when they are mentioned by less than 7 models they are part of ‘some’ models (5-6) or ‘few to very few’ models (less than 5).

Operational, technical, and formal skills and competences

The first category discussed consists of operational, technical, and formal skills and competences (See: Appendix, Table 2). Among these, the indicators ‘knowing and using hardware’, and ‘knowing and using digital tools and software’ are at the foundation of virtually all digital literacy models analysed. Although many of the frameworks emphasise the fact that technology, or medium-related skills, are not necessarily the core elements of digital use, these are nevertheless a primary requirement: “Content-related skills somehow depend on the medium-related skills because the absence of medium-related skills means that one will not even come to perform the content-related skills” (van Deursen, 2010, p. 70). “Knowing and using the Internet” is discussed in a fair amount of cases, throughout the entire time span investigated, from the earliest to the most recent models. As the Internet has rapidly become a part of everyday life, most models agree that users require the skills and competences to make full use of the medium. In the

meantime, it is also important for researchers and policy-makers to understand the complexity of factors behind the ways in which people use the Internet, and the motivations behind them" (van Deursen et al., 2014, p. 7).

A fair amount of mentions was also awarded to the indicator 'handle digital structures', which refers to the ability to handle the distinctive structure of digital media, such as successfully working with menus, hyperlinks and associative navigation. In this context, Eshet-Alkalai (2004) discusses 'branching literacy', claiming that users face new challenges in having to deal with 'hypermedia and non-linear thinking', and need the skills to handle the new structures and not get lost in the digital space. Furthermore, we can observe a fair amount of attention given to skills related to 'privacy and the protection of personal data'. Research in the field of privacy has determined a trend that is particularly present in social networking sites (SNSs), where the responsibility is pushed towards the user (De Wolf, Heyman, & Pierson, 2013). In this context, it becomes instrumental for individuals to understand the way their data and personal information is being shared, accessed by others, or used by governments and corporations; and, more importantly, they need to have the necessary skills to protect themselves from disclosing information they may not need, or want to: "it is crucial that users understand that those sites (without the appropriate privacy settings and critical skills) can lead to loss of control of personal data, and to having it delivered to third parties for commercial purposes" (Ala-Mutka, 2011, p. 10).

At the other end of the spectrum, three indicators in this category have received limited attention in the models, having been mentioned in less than five of the cases: 'knowledge of where to seek assistance', 'cross-platform navigation', and 'device safety'. The authors, however, accept that these particular skills or competences may prove to be relevant on different levels of digital knowledge and usage, which could explain for their absence from some of the models. 'Cross-platform navigation', for example, denotes an advanced to proficient level of knowledge and skills that could only prove useful to a smaller percentage of users, while 'device safety' may often be implied by other indicators, such as 'knowing and using hardware', 'knowing and using digital tools and software' or 'knowing and using the Internet'. Nevertheless, we would like to point to 'knowledge of where to seek assistance' as an indicator which could have a positive impact on the initial uptake of digital tools and on finding further support for learning and development. The ability to know where to seek assistance, both online and offline, is related to concepts such as autonomy and problem-solving, which

have been identified as important factors in the development of digital competences (see Iordache et al., 2016). This knowledge could empower individuals to act independently in the development of their digital skills, to search for information, and to solve problems they may encounter (Mariën, 2016).

Information and cognition skills and competences

The second category discussed is comprised of information and cognition skills and competences (See: Appendix, Table 3). Here, the main focus is placed on critical skills through the indicator ‘analyse and evaluate’ online information, which is mentioned in all 13 models. Eshet-Alkalai goes as far as claiming that “the ability to evaluate and assess information properly has become a ‘survival skill’ for scholars and information consumers” (2004, p. 99). In this context, several of the analysed frameworks (Ala-Mutka, 2011; Bawden, 2008; Calvani et al., 2008; Martin & Grudziecki, 2006) integrate elements from Gilster’s model (1997), the first to emphasise that digital skills were “about mastering ideas, not keystrokes”(Bawden, 2008, p. 13).

Many of the models also discuss several of the indicators clustered in this category under the construct of ‘information literacy’, which mainly incorporates the ability to ‘search’, ‘identify/select’, ‘locate’, ‘access/retrieve/store’, as well as ‘disseminate/share’ relevant information, thus generally concerned with “how data and information in any format and form are managed, using different technological tools” (UNESCO, 2013, p. 13). Although they are more difficult to acquire, once developed, cognitive skills are not as prone to quick changes as operational, medium-related skills that need to keep up with the rapid and constant development of technical tools (Ala-Mutka, 2011).

In addition to critical skills, the indicator ‘digital problem-solving skills’ is also discussed by a fair amount of the analysed models. Problem-solving skills can have a positive effect on the development of digital skills and competences, helping users identify the correct digital tools needed to reach their goals, as well as enhance their ability to use digital tools in order to solve conceptual, but also technical problems (Iordache et al., 2016). In the analysed models, problem-solving skills are defined as the ability to “identify digital needs and resources, make informed decisions on most appropriate digital tools according to the purpose or need, solve conceptual problems through digital means, creatively use technologies, solve technical problems, update own and other's competence” (Ferrari, 2013, p. 32).

Scholars have also claimed that the focus should not just be placed on autonomous problem-solving, as is currently the case in the educational system, but on collaborative problem-solving – working together in teams to complete tasks and develop new knowledge (Jenkins, 2006; van Dijk & van Deursen, 2014).

In this second category, the indicators that have been mentioned by few to very few models are: the ability to ‘synthesise’, ‘multitasking’, ‘transmedia navigation’, and ‘supporting others in developing digital competence’. We believe that the first three indicators refer to a higher level of use and digital sophistication, the lack of which may have a limited impact on digital uptake and general use, and thus explain their absence from some of the models. However, the limited attention given to the latter has been deemed particularly worrisome, as supporting others in developing digital competence is important in an environment where technology evolves at a fast pace, determining users to constantly update their skills in order to keep up with digital changes. Research has shown that users often depend on various support groups to develop skills and competences, outside of the formal education environment (Hobbs, 2010), thus, family members, teachers, friends, and co-workers all play a part in providing encouragement and hands-on assistance in various contexts (van Dijk, 2005). This can arguably be discussed as an attitude and a contextual element, but also as an ability that users may develop in order to be able to support others.

Digital communication skills and competences

The third category of indicators focuses on digital communication skills and competences (See: Appendix, Table 4). The majority of these indicators are to be found in a large amount of the models discussed. Firstly, all models highlight skills related to indicators ‘construct’ and ‘understand messages’: “To read well, people need to acquire decoding and comprehension skills plus a base of knowledge from which they can interpret new ideas. To write, it is important to understand how words come together to form ideas, claims and arguments and how to design messages to accomplish the goals of informing, entertaining or persuading” (Hobbs, 2010, p. 31). Secondly, all models discuss the indicator ‘exchange messages/share content’. To this end, users are thought to require the knowledge and ability to comment on or respond to material created and shared by others online (Hargittai, 2007), while at the same time be able to share with others the knowledge and content

they have themselves found or created, as well as be proactive in the spreading of news, content and resources (Ferrari, 2013).

Many of the models also discuss users' ability to "interact and collaborate online". Jenkins claims that a 'participatory culture' is emerging 'as the culture absorbs and responds to the explosion of new media technologies that make it possible for average consumers to archive, annotate, appropriate, and recirculate media content in powerful new ways' (Jenkins, 2006, p. 8). According to this, in addition to communication skills that are necessary to convey messages and interact with online audiences, the skills to 'participate in online communities and networks' are therefore also important. This indicator was mentioned in a fair amount of digital literacy models and can be connected to the critical and privacy management skills discussed in the previous section, as users participating in online communities also need to be able to critically assess the information they consume and distribute.

'Netiquette' has also been discussed in many of the models. Netiquette is necessary for users to identify and follow existing rules on the appropriate and respectful way of communicating with others when using computer networks and the Internet. Belshaw refers to this type of skill as 'cultural' and describes it as a "need to understand the various digital contexts an individual may experience, different codes and ways of operating, things that are accepted and encouraged as well as those that are frowned upon and rejected" (Belshaw, 2011, p. 207). It has also been suggested that netiquette is a mode of online behaviour that must be learned in practice, seen as no formal guidance is readily available (van Dijk & van Deursen, 2014, p. 34). In the new media realm, the notion may also be associated with the concept of 'intimacy capital', formulated by Lambert (2015) in his research on how users negotiate unspoken, collective norms regarding the 'public performance of intimacy' (Lambert, 2015, p. 8) through their Facebook posts.

'Managing a digital identity' was discussed by only very few of the analysed models. Nevertheless, the digital environment provides numerous opportunities for users to create various 'public selves' which they can use in different spaces and contexts (Ala-Mutka, 2011, p. 41). Individuals can take part in a number of online communities using a different identity, avatar, or persona in each space (Belshaw, 2011). Therefore, in order to protect themselves but also to ensure an effective communication with others, it is important that users are aware of the information they share through these images and online personas, and how this information is accessed and traced online. Closely related to the ability to efficiently and safely manage a digital identity is the 'awareness of audience', indicator that was also present in few

of the models, and that will be further discussed in the next category of indicators.

Digital content creation skills and competences

Upon analysing the fourth group of indicators, consisting of digital content creation skills (See: Appendix, Table 5), the indicator ‘create and edit new content/ construct new knowledge’ is mentioned in a large amount of models. According to this, users should be able to create new knowledge, units of information, media products or other digital outputs which will contribute to task achievement or problem solution (Martin & Grudziecki, 2006, p. 257). The ability to ‘produce creative expressions’ is mentioned in many of the models, and seen as necessary for present day social participation, personal expression and professional activity: “Creativity with digital tools and media can benefit work, learning or hobbies by providing new and innovative means of carrying out tasks or presenting results. Being open to learn or invent, and to adapt and mould existing ways into new models is necessary” (Ala-Mutka, 2011, p. 52).

A fair amount of digital literacy models also points to the skill users need in order to ‘integrate and remix existing content’, as a relevant element in the development of digital competences. In this context, Eshet-Alkalai talks about ‘reproduction literacy’, or the “art of creative recycling of existing material” (Eshet-Alkalai, 2004, p. 96), which requires multi-dimensional synthetic thinking and aims to combine existing material in legitimate, original and creative ways. Often linked to the practice of integrating and remixing existing content is the ‘intellectual property rights (IPR) and license awareness and management’, an indicator that was also mentioned in a fair amount of the analysed models. As contemporary digital society is considered one where personal communication and mass communication converge (Castells, 2009), awareness and respect of property rights have become highly valued. To this end, users should not only be aware of rules regarding the use of existing work, but they should also be able to understand the various types of licencing, and correctly apply them to their own digital production (Ferrari, 2013).

As previously mentioned, the indicator ‘awareness of audience’ was only mentioned in few of the analysed models. Research in the domain has identified a series of different privacy and audience levels that users need to be aware of in their online activity. Firstly, there are the ‘usual’ audiences, where matters of interpersonal privacy come into play. Users who are not

knowledgeable about the open design of social media run the risk of downplaying the visibility of their online activity (De Wolf & Heyman, 2015). boyd (2010) claims there are three dynamics caused by social networking sites (SNSs) that users should be aware of: context collapse, invisible audiences, and the merging of the public and private spheres. In the socialisation process, people develop different contexts such as family, friends, and colleagues. However, SNSs make it challenging to clearly differentiate between the three, thus creating difficulties for users to adopt the online behaviour that is appropriate for each context. Research has also referred to ‘imagined audiences’ – a mental conceptualization of people towards whom a message may be addressed (Litt & Hargittai, 2016), and which may become challenging considering that the “average everyday user has likely not received any audience training so their strategies and cognizance may be somewhat happenstance and spontaneous” (Litt & Hargittai, 2016, p. 9). Affordances of social media create invisible audiences, making users unaware of who is able to access their online performance, while boundaries between the private and public sphere are blurred through social media privacy management strategies (Lampinen, Lehtinen, Lehmuskallio, & Tamminen, 2011). Secondly, people should be aware of who their audience is with regards to third parties. Information that people knowingly or unknowingly publish in the online realm may reach ‘silent listeners’ through apps (Stutzman, Gross, & Acquisti, 2013; Wang, Xu, & Grossklags, 2011) or advertisers. Research has shown that users are granted more options to control the information flow towards other users, than to third parties and service providers (Heyman, De Wolf, & Pierson, 2014). Thirdly, scholars discuss algorithmic control, which undermines the users’ power over their online image and communication, placing the algorithm in charge of aspects of their daily lives (Beer, 2009). Lastly, the matter of online surveillance should also be considered by users, especially in light of recent disclosures regarding state surveillance (Greenwald & MacAskill, 2013), or the manipulation of users for research purposes, as is the case of the ‘Facebook experiment’ (Chambers, 2014).

Strategic skills and competences

In the strategic skills category (See: Appendix, Table 6), a fair amount of models discusses the skill to ‘use information towards personal or professional goals’. van Dijk and van Deursen (2014) consider strategic skills to be the most advanced Internet skills, and claim they should be linked

to notions of empowerment and decision-making. In this context, users should be able to orient themselves, decide and act upon information retrieved online to reach a particular goal, and eventually derive personal or professional benefits. Strategic skills are built upon the previously discussed categories of skills and competences, but are considered to be at a higher stage in achieving educational, professional, and personal goals through the appropriate use of digital means (Martin & Grudziecki, 2006, p. 265).

Within the same category, however, the ability to ‘identify digital competence gaps’ was only mentioned in few of the analysed models. Nonetheless, as digital literacy needs vary according to particular life situations (Martin & Grudziecki, 2006) and change with the introduction of new technology and communication tools, the development of digital skills and competences is a lifelong process for which each individual needs to take personal responsibility (Ala-Mutka, 2011, p. 42). Users must be able to reflect on their level of competence, in order to identify the direction in which they need to further develop, while aiming to reach personal and professional goals in the current digital age. To this end, the DIGCOMP project proposes a detailed self-assessment grid as a tool for users to describe and understand how to improve their own level of digital competence (see Ferrari, 2013).

Discussion

The quick-scan exercise has confirmed the highly complex nature of identifying and defining digital skills, literacies, and related competences. Although a set of 39 indicators was successfully established based upon the 13 digital literacy models considered, identifying the indicators within the models has proven to be a difficult task, precisely due to the lack of a clear distinction and the overlap between the concepts. Considering the potential application of these models for the measurement, evaluation and comparison of digital literacy levels, there is a clear need for a more integrated conceptual approach, or even more, an overarching unique framework to be used as a common starting point.

Another major challenge lies within the conversion of such an overarching framework, and the extensive number of indicators it would encompass, into survey questions. Issues regarding oversimplification of indicators, technological determinism or limits of self-reporting for measuring digital skills, literacies and related competences have been highlighted extensively in literature (van Deursen, 2010).

First steps in this direction are currently being taken by the Institute for Prospective Technological Studies (IPTS), one of the seven joint research centres (JRC) of the European Commission. This is attempted through the further elaboration of the DIGCOMP framework, developed by Ala-Mutka (2011) and Ferrari (2013), into 'The Digital Competence Framework for Citizens - Update Phase 1: The conceptual reference model' (Vuorikari, Punie, Carretero, & Van den Brante, 2016).

The quick-scan analysis of the 13 digital literacy models has led to a series of interesting findings with regards to the digital skills and competences that are being promoted in recent conceptual models. It is important to note that there is an unbalanced focus on certain skills and competences, to the detriment of others, some of which are, arguably, just as relevant. Firstly, skills related to 'knowing and using hardware', 'knowing and using digital tools and software', and 'knowing and using the Internet' are discussed by nearly all of the digital literacy models analysed. As discussed in the previous section, operational, technical and formal skills and competences are generally regarded as the foundation of digital usage, and are thus widely integrated and discussed in the models. Information and cognition skills and competences, such as being able to 'search', 'identify/select', 'disseminate/share', and 'locate' the information needed, are also mentioned in the majority of the 13 digital literacy models. The ability to 'analyse and evaluate' content is regarded as relevant by all conceptual models, as they collectively stress it is crucial for users to develop the necessary critical skills to make the right decisions with regards to the content they encounter online. Interestingly, the majority of skills and competences in the digital communication category, such as 'construct messages', 'understand messages', 'exchange messages/share content', 'interact/collaborate online', 'netiquette', and 'encode/decode messages', have been discussed by the large majority of the digital literacy models employed in the study. The ability to 'create and edit new content/construct new knowledge' and 'produce creative expressions' were also present in almost all of the models, thus demonstrating that it is important to differentiate between digital communication and digital content creation.

Although seen as instrumental by a fair amount of models, strategic skills are completely left out of several digital literacy models. Users indeed require skills from all of the categories discussed above in order to develop this particular category of competences. However, the importance of users to be able to 'use information towards personal or professional goals' needs to be rethought and, we believe, regarded as highly relevant in future models.

Societal and technological developments provide valuable context for the increased visibility of certain indicators, as well as the reduced attention others have received over time. Thus, an interesting finding refers to indicators ‘managing a digital identity’ and ‘awareness of audience’. Although mentioned in few to very few of the models, these have arguably become more important with the introduction and increasing popularity of new media. This shift of focus can be visually traced on our matrix, as the two indicators are discussed primarily in models developed after 2010. Notions such as ‘privacy and protection of personal data’ have also become more present and, possibly more valued, in discussions on digital skills and competences over time, for similar reasons associated with the new challenges determined by the introduction and use of new media. Meanwhile, the increase in mentions of content creation and remixing skills can be attributed to a more general availability and accessibility of digital creation tools and content sharing applications.

Finally, the analysis emphasises the need to expand the digital skills debate beyond the micro-perspective. Too often digital literacy models refer to individual attributes, without taking into account the social context. Although the framework proposed by Jenkins (2006) clearly demonstrates the need for a community-based approach for the development of digital skills, there is an evident lack of focus on more contextual skills such as ‘knowledge of where to seek assistance’ and ‘supporting others in developing digital competence’ in most other frameworks. The importance and potential influence of support mechanisms has however been discussed extensively in the work of Hobbs (2010), van Dijk (2005), and Eynon and Geniets (2015). It is clear that, in the future, there is need for more attention, reflection, and integration of the notion of support networks and the ability to share different knowledge and resources, thus opening up the digital skills debate to the meso- and macro-level.

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Appendix

Table 1. Matrix digital skills and competences

	Literature													
	MARTIN & GRUDZIECKI (2006)	JENKINS (2006)	HARGITTAI (2007)	CALVANI ET AL. (2008)	BAWDEN (2008)	BELSHAW (2010)	ALA-MUTKA (2011)	FERRARI (2011)	VAN DIJK & VAN DEURSEN (2013)	UNESCO (2013)	VAN DEURSEN, HELSPER & EYNON (2014)	VAN DIJK & VAN DEURSEN (2014)	Totals	
INDICATORS														
DIGITAL SKILLS and COMPETENCES														
OPERATIONAL, TECHNICAL AND FORMAL	6	4	3	5	3	4	5	5	8	8	4	6	6	
Knowing and using hardware	13	x	x	x	x	x	x	x	x	x	x	x	x	
Knowing and using digital tools and software	12	x	x	x	x		x	x	x	x	x	x	x	
Knowing and using the Internet	11	x	x	x	x		x	x	x	x	x	x	x	
Knowledge of where to seek assistance	4			x				[x]	x			(x)		
Cross-platform navigation	3							x	x	x				
Handle digital structures	10	x			x	x	x	x	x	x	x	x	x	
Device safety	4	x							x	x			x	
Privacy protection of personal data	10	x	x	x	x	x	x	x	x	x	x	x	x	
INFORMATION COGNITION	11	11	9	5	4	5	8	4	9	12	8	8	7	
Search	12	x	x	x	x	x	x	x		x	x	x	x	
Identify>Select	12	x	x	x	x	x	x	x	x	x	x	x	x	
Locate	11	x	x	x	x	x	x	x	x	x	x	x	x	
Access/Retrieve/Store	9	x	x	x			x		x	x	x	x	x	
Organise	6	x		x					x	x	x	x	x	
Synthesise	5	x	x	x					x	x				
Disseminate Share	11	x	x	x	x		x	x	x	x	x	x	x	
Distributed cognition	6	x	x			x		x	x	x	x			
Multitasking	1		x											
Digital problem-solving skills	8	x	x	x		x	x	x	x	x	x			
Support others in developing digital competence	2								x			x	x	
Analyse and evaluate	13	x	x	x	x	x	x	x	x	x	x	x	x	
Transmedia navigation	4	x	x				x			x				
DIGITAL COMMUNICATION	7	9	4	6	5	6	8	8	8	9	8	9	7	
Encode/decode messages	11	x	x		x	x	x	x	x	x	x	x	x	
Construct messages	13	x	x	x	x	x	x	x	x	x	x	x	x	
Understand messages	13	x	x	x	x	x	x	x	x	x	x	x	x	
Exchange messages/Share content	13	x	x	x	x	x	x	x	x	x	x	x	x	
Interact/Collaborate online	12	x	x	x	x	x	x	x	x	x	x	x	x	
Participate in online communities & networks	10	x	x		x		x	x	x	x	x	x	x	
Efficiency in communication	6	x		x			x			x	x	x	x	
Managing a digital identity	5	x						x	x	x		x		
Netiquette	12	x	x		x	x	x	(x)	x	x	x	x	x	
DIGITAL CONTENT CREATION	5	5	3	1	1	2	6	4	4	7	3	6	7	
Create and edit new content/Construct new knowledge	12	x	x	x	x	x	x	x	x	x	x	x	x	
Integrate and remix existing content	8	x	x	x				x	x	x		x	x	
Produce creative expressions	11	x	x	x		x	x	x	x	x	x	x	x	
Awareness of purpose	4						x			x		x	x	
Awareness of audience	4						x			x		x	x	
Awareness of composition techniques	7	x	x		x		x		x	x	x	x	x	
IPR and license awareness and management	8	x	x				x	x	x	x	x	x	x	
STRATEGIC	1	0	2	0	1	1	1	0	2	2	1	1	0	
Use information towards personal or professional goals	9	x		x	x	x	x	x	x	x	x	x	x	
Identify digital competence gaps	3		x						x	x				

Table 2. Operational, technical and formal skills and competences

	Literature												
	Eshet-Alkalai (2004) Martin & Grudziecki (2006) Jenkins (2006) Hargittai (2007) Bawden (2008) Calvani et al. (2008) Hobbs (2008) Belshaw (2010) Ala-Mutka (2011) Ferrari (2013) Van Dijk & Van Deursen (2013) UNESCO (2013) Van Deursen, Helspert & Eynon (2014) Van Dijk & Van Deursen (2014)												
Totals	6	4	3	5	3	4	5	5	8	8	4	6	6
INDICATORS													
DIGITAL SKILLS and COMPETENCES													
OPERATIONAL, TECHNICAL AND FORMAL													
Knowing and using hardware	13	x	x	x	x	x	x	x	x	x	x	x	x
Knowing and using digital tools and software	12	x	x	x	x		x	x	x	x	x	x	x
Knowing and using the Internet	11	x	x	x	x		x	x	x	x	x	x	x
Knowledge of where to seek assistance	4				x			[x]	x		(x)		
Cross-platform navigation	3							x	x	x			
Handle digital structures	10	x				x	x	x	x	x	x	x	x
Device safety	4	x							x	x			x
Privacy protection of personal data	10	x	x		x	x	x	x	x	x	x	x	x

Table 3. Information, cognition skills and competences

	Literature												
	Eshet-Alkalai (2004) Martin & Grudziecki (2006) Jenkins (2006) Hargittai (2007) Bawden (2008) Calvani et al. (2008) Hobbs (2008) Belshaw (2010) Ala-Mutka (2011) Ferrari (2013) Van Dijk & Van Deursen (2013) UNESCO (2013) Van Deursen, Helspert & Eynon (2014) Van Dijk & Van Deursen (2014)												
Totals	11	11	9	5	4	5	8	4	9	12	8	8	7
INDICATORS													
DIGITAL SKILLS and COMPETENCES													
INFORMATION COGNITION													
Search	12	x	x	x	x	x	x	x	x	x	x	x	x
Identify>Select	12	x	x	x	x	x	x	x	x	x	x	x	x
Locate	11	x	x	x	x	x		x	x	x	x	x	x
Access/Retrieve/Store	9	x	x	x			x		x	x	x	x	x
Organise	6	x		x				x	x	x	x	x	x
Synthesise	5	x	x	x					x	x			
Disseminate Share	11	x	x	x	x		x	x	x	x	x	x	x
Distributed cognition	6	x	x			x		x	x	x			
Multitasking	1	x											
Digital problem-solving skills	8	x	x	x		x	x	x	x	x			
Support others in developing digital competence	2								x		x		
Analyse and evaluate	13	x	x	x	x	x	x	x	x	x	x	x	x
Transmedia navigation	4	x	x				x			x			

Table 4. Digital communication skills and competences

	Totals	MARTIN & GRUDZIECKI (2006)	JENKINS (2006)	HARGITTAI (2007)	BAWDEN (2008)	CALVANI ET AL. (2008)	BELSHAW (2010)	ALA-MUTKA (2011)	FERRARI (2013)	VAN DIJK & VAN DEURSEN (2013)	UNESCO (2013)	VAN DEURSEN, HELSPER & EYNON (2014)	VAN DEURSEN, HELSPER & EYNON (2014)
INDICATORS													
DIGITAL SKILLS and COMPETENCES													
DIGITAL COMMUNICATION		7	9	4	6	5	6	8	8	9	8	9	7
Encode/decode messages	11	x	x			x	x	x	x	x	x	x	x
Construct messages	13	x	x	x	x	x	x	x	x	x	x	x	x
Understand messages	13	x	x	x		x	x	x	x	x	x	x	x
Exchange messages/Share content	13	x	x	x	x	x	x	x	x	x	x	x	x
Interact/Collaborate online	12	x	x	x	x	x	x	x	x	x	x	x	x
Participate in online communities & networks	10	x	x		x		x	x	x	x	x	x	x
Efficiency in communication	6		x		x		x			x	x	x	x
Managing a digital identity	5		x					x	x	x	x	x	x
Netiquette	12	x	x		x	x	x	(x)	x	x	x	x	x

Table 5. Digital content creation skills and competences

	Totals	MARTIN & GRUDZIECKI (2006)	JENKINS (2006)	HARGITTAI (2007)	BAWDEN (2008)	CALVANI ET AL. (2008)	BELSHAW (2010)	ALA-MUTKA (2011)	FERRARI (2013)	VAN DIJK & VAN DEURSEN (2013)	UNESCO (2013)	VAN DEURSEN, HELSPER & EYNON (2014)	VAN DEURSEN, HELSPER & EYNON (2014)
INDICATORS													
DIGITAL SKILLS and COMPETENCES													
DIGITAL CONTENT CREATION		5	5	3	1	1	2	6	4	4	7	3	6
Create and edit new content/Construct new knowledge	12	x	x	x		x	x	x	x	x	x	x	x
Integrate and remix existing content	8	x	x	x				x	x	x		x	x
Produce creative expressions	11	x	x	x			x	x	x	x	x	x	x
Awareness of purpose	4						x		x		x	x	x
Awareness of audience	4						x		x		x	x	x
Awareness of composition techniques	7	x	x		x		x		x		x	x	x
IPR and license awareness and management	8	x	x				x	x	x	x	x	x	x

Table 6. Strategic digital skills and competences

	Totals	MARTIN & GRUDZIECKI (2006)	JENKINS (2006)	HARGITTAI (2007)	BAWDEN (2008)	CALVANI ET AL. (2008)	BELSHAW (2010)	ALA-MUTKA (2011)	FERRARI (2013)	VAN DIJK & VAN DEURSEN (2013)	UNESCO (2013)	VAN DEURSEN, HELSPER & EYNON (2014)	VAN DEURSEN, HELSPER & EYNON (2014)
INDICATORS													
DIGITAL SKILLS and COMPETENCES													
STRATEGIC		1	0	2	0	1	1	1	0	2	2	1	1
Use information towards personal or professional goals	9	x		x		x	x	x		x	x	x	x
Identify digital competence gaps	3			x					x	x			

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Media Literacy Policy in Flanders Belgium: From Parliamentary Discussions to Public Policy

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ABSTRACT

Media literacy has gained in importance in policy discussions on media, digital media and the Internet in many countries. How do these policies develop and what can be learned? This case study explores the factors contributing to the successful formulation and implementation of media literacy in Flanders-Belgium. By examining the trajectory of policy debates and policy formulation, this research highlights the development of the concept of mediawijsheid (media literacy), the organization, the Knowledge Center for Media Literacy, and the role of the public service broadcaster in relation to media literacy policy. This case study shows that media literacy has been supported through three coalition governments in Flanders Belgium as different political parties rallied around media literacy as a common denominator for the challenges posed by the changing digital media environment. In particular, the empowerment view on media literacy seems to charm the left, middle, and right of the political spectrum, a finding that may inspire other actors in other countries as they attempt to move media literacy onto the national political agenda.

Keywords: *media literacy, media education, policy, Flanders, Belgium*

Over the last decade, media literacy has gained in importance in policy discussions on media, digital media and the Internet in many countries. In Europe, Media literacy has been integrated into national and regional policies on media and education at the level of member states and the level of the European

Commission. New organizations have been set up to promote aspects of media literacy such as Mediawijzer.net in the Netherlands or the Knowledge Center for Media Literacy (mediawijs.be) in Flanders/Belgium. Existing institutions have seen their mandate renewed or broadened to include aspects of (digital) media literacy such as OFCOM in the UK, the Bayerische Landeszentrale für Neue Medien (Bavarian Regulatory Authority for New Media) in Bavaria – Germany or the Agencija za elektronicke medije (Agency for Electronic Media) in Croatia.

As occurs so often (apart from the case of the United Kingdom), very little is known on how the different EU member states—or regional states for the federal countries such as Germany and Belgium—approach media literacy, how this is translated into national policy, and how policy is put into practice. Although the Journal for Media Literacy Education and other scientific journals from time to time publish articles on single countries, they often focus on particular initiatives and seldom focus on national policy.

In 2014 the TRANSLIT project gathered 28 country case studies on Media and Information Literacy Policies accessible via its website www.translit.fr. These case studies resulted in a comparative study published in an edited volume on Public Policies in Media and Information Literacy in Europe (Frau-Meigs, Velez, & Michel, 2017). In 2016 the European Audiovisual Observatory published a report Mapping of Media Literacy Practices and Actions in EU-28. This report was commissioned by the Council of Europe and provides an overview of media literacy practices in the different countries (Nikoltchev, Cappello, Cabrera, Valais, & Chapman, 2016). As valuable as they are, in general, a drawback of these comparative initiatives is that they are based on commissioned case-study research using pre-formatted documents with strict editorial guidelines. These case studies focus on comparability instead of on the specificity and particularities of the national case.¹

This article provides an in-depth view of one single nation/region. Single country case-study research on policy and policy implementation can be a source of inspiration for more localized solutions to media literacy policy and implementation. The aim of this article is to focus on the political discourses and policy developments around media literacy in Flanders – Belgium. In Flanders, the discussion on media literacy started in the Flemish Parliament in 2006 but only in 2012 was a comprehensive policy document on media literacy and education adopted by the government. This Media Literacy Concept Paper was jointly developed and signed by the Minister of Media and the Minister of Education and Youth, which resulted in a broad definition of media literacy and a transversal approach to implementation.

In this case study, we (1) discuss three major trends in the current debates on media literacy that have implications for policy; (2) analyze the parliamentary discussions on media literacy in Flanders; (3) introduce and analyze the Media Literacy Concept Paper; (4) discuss the establishment of the Knowledge Center

¹ Furthermore, in both studies, only scant attention is paid to policy and policy discourse. The main author of this article was also the author of the case-studies on Flanders and Belgium commissioned for both the book and report mentioned above.

for Media Literacy (mediawijs.be); and (5) discuss the role of the public broadcaster. We conclude by formulating observations in light of the future.

Media Literacy Policy and Current Theoretical Debates

It is not our aim to provide readers with an in-depth overview of the current conceptual and theoretical discussions about media literacy. Instead, we aim to identify a couple of trends in these discussions that have a strong link to the public debate and policy around media literacy. Whereas media education and media literacy have been at the fringes of public policy for many years, in recent years media literacy has become a central point of debate in media and educational policies in many countries and especially in European countries. Some of the theoretical discussions in the media literacy field have direct links with the broader policy discussions. We identify three main trends in the discussion.

First, over the last decades, we have witnessed a trend away from protectionist media literacy approaches towards empowerment literacy approaches. The protectionist approach starts from the idea that media has negative effects on people (especially youngsters) and that users are more susceptible if they are passive (Potter, 2013). The protectionist approach is informed by two distinct theoretical schools in communication studies, i.e., media effects studies, and critical political economy. The first, media effects studies, focus on short and long-term effects of media and content such as advertising, violent content, etc. on peoples thinking and behavior. The latter, critical political economy, sees the media as an ideological tool of capitalism that supports the capitalist system and inherently misrepresents reality. The empowerment, emancipatory or promoting approach starts from the idea that media forms an integral part of our mediated society. Users (including youngsters) are seen as capable of actively engaging with media. Media literacy should stimulate them to become more autonomous in their critical engagement with media and ICTs (Jenkins, 2006; Brian O'Neill & Barnes, 2008; von Feilitzen & Carlsson, 2003). The emancipatory approach often promotes the idea that education about media should start from content, programs, and applications that users watch or use. The emancipatory approach is theoretically close to cultural studies and constructivist approaches in education.

Second, the heightened attention to media literacy is closely related to shifts in media, telecommunication and Internet regulation. Growing digitalization is transforming all users into active producers of content (Hoechsmann & Poyntz, 2012), while the blurring of boundaries between linear broadcasting and digital content provision has diminished the impact of protective measures. As a consequence, a model of 'co-responsibility' has recently gained traction at the European level (Marsden, 2011). As audiences can consume more content in pull mode, individual responsibility and self-regulation are becoming significantly more important than protective measures (Wallis & Buckingham, 2013). Media literacy action is more and more seen as a way to enhance critical skills and user autonomy in the absence of strict media regulation (B. O'Neill, 2010; Wallis & Buckingham, 2013).

Third, most authors on media literacy advance a skills-based approach to media literacy (Livingstone, 2004; Potter, 2014), which guides the vast majority of research initiatives on the subject. Potter identifies seven cognitive skills: analysis, evaluation, grouping, induction, deduction, synthesis and abstraction (Potter, 2013). The skills-based approach is related to other skills and competences discussions currently taking place, especially around digital skills, e-skills, Internet skills, coding skills, etc. Whereas media literacy initially focused on cognitive skills to deconstruct media and media content, digital skills discussions focus much more on operational skills to be able to use technology. Currently, both debates often run parallel.

However, recent theories in media literacy start to focus on the creative and communicative skills needed to handle interactive aspects of media and Internet. Digital skills frameworks integrate more cognitive or strategic skills in their frameworks or competence models (Hobbs, 2011a; Hoechsmann & Poyntz, 2012; Wallis & Buckingham, 2013). In principle, they are all grappling with increasingly converged media. This being said the underlying—and often unformulated—goals of media literacy and e-skills frameworks are different. Media literacy is informed by broad humanistic and aesthetic goals about citizenship and enjoyment of media, entertainment, games, culture, and art. e-Skills debates are informed by much more utilitarian goals such as employment, economic development, and direct individual enlightenment. In this sense, the e-skills debate largely neglects the fact that media in general and social media in particular play an important social and entertaining function in people's day-to-day life.

Parliamentary Discussions on Media Literacy in Flanders

Media literacy in Flanders - Belgium should be seen against the educational, political and institutional developments in Belgium over the last 40-50 years. Between 1970 and 2014, Belgium developed from a centrally organized country with three languages, towards a decentralized federal system in which the different communities—based on language and territory—have a high level of autonomy.² The Belgium institutional setup is highly complex and changed gradually in the forms of 6 State Reform. Simply put, the current Belgian system consists of one national state with its government/parliament and three communities: the Flemish Community, the French Speaking Community and the German Community and three regions: Flanders, Wallonia and the Brussels Capital Region with their governments/parliaments. The communities—especially the larger Flemish and French Speaking Community—are responsible for person-

² Culturally and sociologically, it refers to Flemish organizations, media, social and cultural life; alternative expressions for this concept might be the "Flemish people" or the "Flemish nation" (in a similar sense as the Scottish, Welsh, or Québécois people are nations, referring to an ethnic identity). The term "community" should then not be capitalized. Politically, it is the name of which both elements are normally capitalized, for one of the three institutional communities of Belgium, established by the Belgian constitution and having legal responsibilities only within the precise geographical boundaries of the Dutch-language area and of the bilingual area of Brussels-Capital (Wikipedia).

related matters amongst which education, culture, and media. Media literacy is thus a community matter under the remit of the Flemish Parliament and the Flemish Government.

As in most countries, the current media literacy debates have precursors in earlier initiatives. The current debate on media literacy in Flanders has different antecedents: (1) the discussion on media and cultural education which predates the current discussion, but seldom reached the political level, (2) developments in the field of the digital divide and e-inclusion which are the result of the gradual digitalization of media and society. In this article, we will focus on the new discussion, which emerged in the Flemish Parliament in 2006 with discussion on *mediawijsheid*, a term that can be literally translated as *media wisdom* but is largely synonymous with the term media literacy in English.

The term has evolved over time. In the databank of the Flemish Parliament, the search term *mediawijsheid* pops-up 647 times since 2006. This databank contains all transcripts of discussions in parliament, the discussions in the commissions and their hearings, all draft laws and final laws put to the vote before parliament since 1970 when it was established. Apart from *mediawijsheid*, other terms have been used, including *mediageletterdheid* (media literacy), which appears 104 times since 2004; *media-educatie* (media education) which appears 124 times since 1995; and *media-opvoeding* (another word for media education) which appears 73 times since 1997.³ Two broad observations can immediately be made. First, before 2006 parliament discusses media education from time to time, but with a low frequency. Today, *mediawijsheid* has emerged as the central concept in parliamentary discussions on media literacy and the term is mentioned manifold times in comparison to the period before 2006.

The term *mediawijsheid* first popped up in a meeting of the Commission for Culture, Youth, Sports and Media in June 2006. The Commission discussed the reform of the Film Screening Authority in the context of the protection of minors in the audiovisual and gaming sector. A member of the social-democrat party sp.a refers to the Dutch *Kijkwijzersysteem*—a film rating system introduced in the Netherlands—and suggests a more empowerment-oriented approach to the protection of minors concerning film and gaming. He noted:

We have to make sure that we have the necessary instruments to guide children who watch television and play games. We need to make sure that children themselves have the necessary instruments to engage with media in a savvy way. I refer to the Netherlands where they no longer use the term media education, but media wisdom (*mediawijsheid*). I think this is an interesting concept because, on the one hand, it indicates that parents and teachers have a certain responsibility, but on the other hand that children are indeed able to handle media sensibly" (Joris Vandenbroucke in Vlaams Parlement (2006), our translation).

The then Minister of Culture, Youth, Sports, and Brussels responded positively to the use of the term *mediawijsheid*, noting:

³ Search carried out in August 2017.

We can ask the question whether it is necessary that the government intervenes in sectors where certain branches of the media sector have developed a system of self-regulation. (...) I am not in favor of introducing a system that prohibits the sales of certain (violent) games. (...) An information system which leads to discussions between parents and educators and children is in my view much more appropriate. In that sense it might indeed be better to talk about media wisdom (mediawijsheid)" (Bert Anciaux in Vlaams Parlement (2006), our translation).

Two years later, in May 2008, in a meeting of the Parliamentary Commission on Media—again in the context of a discussion on gaming—a member of the Christian democratic party CD&V asked the Minister of Culture, Youth, Sports and Brussels the following question:

In the Netherlands, they want to establish a center of expertise that supports parents and schools in how to function in a virtual world. My question, therefore, is whether you foresee the funding of projects in media literacy. (...) Would you be in favor of establishing such a center (in Flanders) and do you see this as a role for you as Minister in charge of children's rights and youth?" (Tinne Rombouts, Vlaams Parlement (2008b), our translation).

The same member of parliament tabled this question on several occasions to different ministers, amongst others to the Minister of Foreign Affairs, Media and Tourism, Geert Bourgeois (Vlaams Parlement, 2008a) and the Minister of Work and Education, Frank Vandenbroucke (Vlaams Parlement, 2008c). Both were reluctant to support the idea. The Minister of Media referred the matter to the public broadcaster who indirectly contributes to knowledge on media. The Minister of Education indicated that schools are already supposed to work on media and that media education is part the final attainment level.

Parliament is however not dissuaded. On May 5th 6 Members of Parliament introduced a resolution in support of the gaming sector in Flanders. The resolution covered different topics such as gaming, a rating system for the gaming sector, support to the gaming sector in Flanders, and media literacy. In the resolution, gaming is not perceived negatively but is seen as a potentially positive medium and as a cultural product in its own right. The resolution formulated recommendations about the self-regulation of the gaming sector, in line with PEGI, about control over self-regulation, focusing on the potential educational value of games and proposing measures to stimulate the gaming sector as a service and creative sector in Flanders. This resolution is supported by Christian Democrats CD&V, Social Democrats sp.a, conservative nationalists N-VA, Liberals Open VLD and the Green Party Groen. The resolution is thus supported by all major coalition and opposition parties, except for the ultra-nationalist party Vlaams Belang.

Concerning media literacy, the document states:

The members of parliament submitting this resolution are convinced that a Knowledge Center for Media Literacy, in line with developments in the Netherlands and the UK, can contribute considerably to parent's and children's critical and appropriate use of games, the Internet, and other media. (...) The Flemish Parliament (...) asks the Flemish Government: (...) 4° to establish a Knowledge Center for Media Literacy within the Flemish Regulator for the Media, that would gather knowledge in relation to technological developments, that would carry out or outsource research on the educational effects and possibilities of new media such as the Internet, games, and interactive software, and that would establish campaigns to inform youth, parents, teachers and educators, in collaboration (with other organizations). (our translation, Vlaams Parlement, 2008d).

The Resolution was adopted by Parliament on July 9, 2008 and had a direct effect on policy. In a Policy Brief of October 2008 by the new Minister of Media—and Minister-President of Flanders at the same time—the concept of mediawijsheid is first mentioned in a government text. Media literacy appears in the context of news in a digital age and opinion formation by citizens through digital media. The document is fairly negative about news in a digital age. It concludes that:

The most relevant new factor (regarding a solution) is probably the teaching of media literacy. (...) Readers, listeners, and viewers must be educated to be able to evaluate and assess the value of the content presented to them. That is what media literacy means: to be able to handle the multitude of constructed information responsibly, to be able to sort the wheat from the chaff and to develop a critical attitude towards the sometimes biased news" (our translation, Peeters, 2008).

The document remains vague on how to implement the policy. It does consider the establishment of a Knowledge Center but indicates that the Flemish Regulator for the Media is carrying out a comparative analysis to look at the different organizational options. These options were presented to the Commission for Media of the Flemish Parliament in March 2009 (Vlaams Parlement, 2009) and led to discussions on how and where best to establish a Knowledge Center. These discussions were technical and political in the sense that some political parties feared that specific options might influence the independence of such a center. A decision would only be taken by the next government after the general elections. However, what is clear from the analysis above reveals is that:

1. In Flanders, media literacy emerged on the parliamentary agenda after 2006;
2. It is not the government, but parliament and more specifically the Commission on Media that is driving the agenda;

3. There is broad support for the topic from all democratic parties both from parties within the governing coalition as from opposition parties;
4. The initial discussions are sparked by the possible negative effects of digital media, in relation to gaming and in relation to news and opinion formation;
5. The discussion on media literacy is linked to the discussion on regulation of the media by government in the form of self-regulation or co-regulation between government and industry;
6. The individual—including children—are thought to be able to handle media in an independent, sensible and critical way.

Figure 1 provides a chronological overview of the formal policy in relation to media literacy, which will be discussed in the following sections. Within Parliament, media literacy remains a topic that is regularly discussed, especially in the Commission on Media and the Commission on Education. Figure 1 shows the historical development of policy as formulated by the Minister of Media. Other policy texts—especially in Education—do have provisions about media literacy or briefly refer to it—however, it is the Minister of Media who takes the lead in formulating a policy on media literacy. Regarding the implementation of policy, the educational sector is, of course, an important sector to reach kids and adolescents. Both the education department and the Knowledge Center for Media Literacy will thus, in their implementation strategies, pay specific attention to schools. However, this article focuses on formal policy and less on implementation.

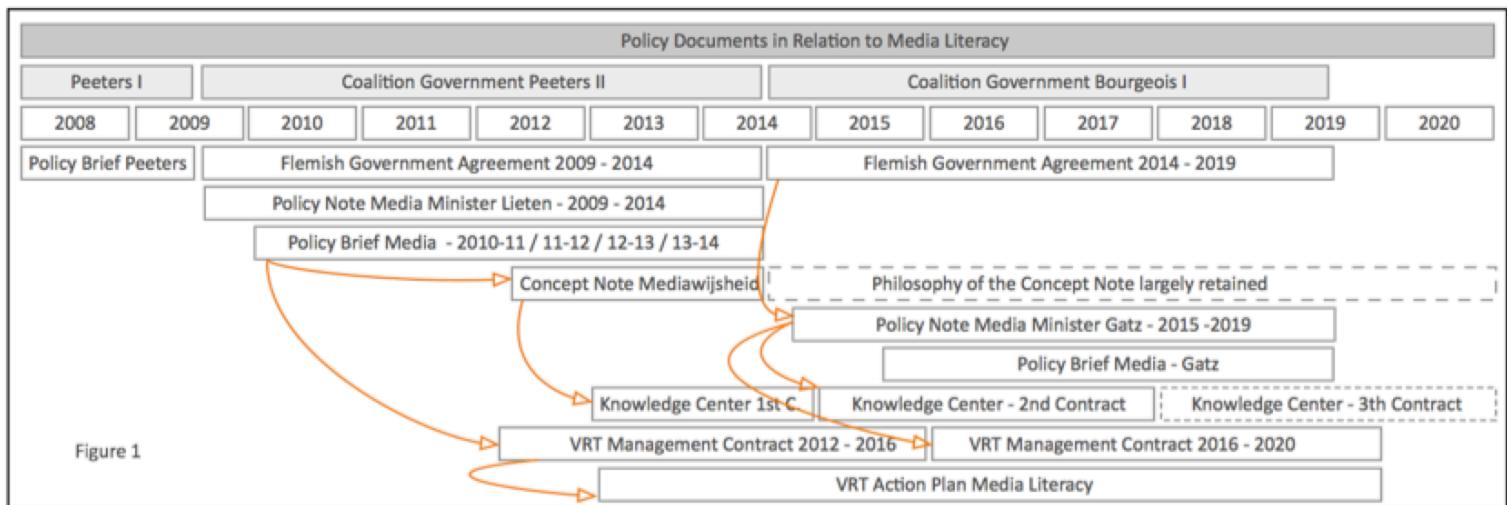


Figure 1
Media Literacy under the Coalition Government Peeters II 2009-14

Government Agreement and Ministers Policy Note

From 2009 to 2014, the coalition government Peeters II consisted of Christian Democrats CD&V, Social Democrats sp.a, and Conservative Nationalists N-VA. They were the first government that officially mentioned media literacy in its Government Agreement. This agreement set out the broad policy lines the government wished to achieve within its five-year mandate. In the Government Agreement 2009-2014, three provisions are related to media literacy: (1) overcoming the digital divide; (2) providing universal access to the Internet at democratic prices; and (3) making citizens more media literate (Vlaamse Regering, 2009). In the Government Agreement, the establishment of a Knowledge Center for Media Literacy is promised:

Media users have to acquire the necessary skills to be able to use new media adequately. We, therefore, establish a Knowledge Center for Media Literacy that will coordinate the collaboration on media literacy with all partners in the sector. Information campaigns need to developed using channels many people are using—via the Internet and more specifically using social media (our translation, Vlaamse Regering, 2009).

The policy concerning media literacy is further developed in the Ministers Policy Note 2009-2014 by the appointment of the Minister for Media, Ingrid Lieten.⁴ In this Policy Note, which is meant to specify the policy for the whole government period 2009-14, media literacy is broadly defined. The brief proposed an open and modern vision on media literacy with a focus on both creation and critical thinking about all forms of media:

Media literacy has many layers: being able to handle all existing media, being able to actively use media, critically engaging with media, creatively using media in terms of producing/making media ‘user-generated content’, understanding the economics of the media, being aware of the authors and copy right issues related to digital media in our society"(our translation)(Ingrid Lieten, 2009).

Interesting to note is that there is an emphasis in the document on the needs of specific vulnerable groups:

The Knowledge Center for Media Literacy will in all of this pay special attention to the needs of specific groups under which children, youth and senior citizens, but also specifically to vulnerable groups in society such as people with disabilities or those who live in poverty (our translation, Ingrid Lieten, 2009).

⁴ In Flanders, a distinction should be made between a Ministers Policy Note and a Policy Brief. In the Policy Note, the Minister sets out its broad ambitions for the five-year term of his/her mandate in a specific field. The Policy Brief specifies concrete actions in the same field for two years. Flemish Ministers are responsible for multiple fields and will, therefore, develop different of these Notes and Briefs during their mandate.

In her Policy Brief for the period, 2010-11 Minister of Media Ingrid Lieten further developed her policy on media literacy to include a funding mechanism. In the Policy Brief, 650,000 euros was made available to support media literacy projects in Flanders. In this policy document, media literacy was linked to e-inclusion, the digital divide of the second degree, stereotyping and representation, skills and diversity, as this excerpt shows:

Quality is closely linked to access and innovation. The complexity of media has as an effect that sometimes 'media victims' occur—e.g., young people who are stalked or bullied on the Internet. A new divide is emerging between those who are media literate and those who are not. Additionally, we notice that disadvantaged groups (...) feel excluded because of continuous stereotyping representations. It is my firm belief that each Flemish citizen should be able to handle (new) media appropriately and should recognize herself in specific segments of media content. Especially as our society has become more diverse, it is of utmost importance that diversity is recognized and appreciated (our translation, Ingrid Lieten, 2011).

Concept Brief on Media Literacy

In 2012, a coherent media literacy policy was jointly developed by the Ministry of Media Ingrid Lieten and the Ministry of Education Pascal Smet. Both Ministers belong to the social democratic party sp.a. The Concept Brief Media Literacy (Conceptnota Mediawijsheid) had the broad ambition to develop a framework for media literacy that reaches beyond the fields of media and education. The document states:

Media literacy is a theme that touches diverse aspects of policy such as media, innovation, youth, education, culture, welfare and poverty reduction. This concept brief mainly focusses on the fields of media and education, yet it is an invitation to broaden the collaboration and the policy approaches" (our translation, Lieten & Smet, 2012).

In the Concept Brief, media literacy is defined as:

(...) the whole of knowledge, skills, and attitudes that allow citizens to deal with the complex, changing and mediatized world in a conscious and critical way. It is the ability to use media in an active and creative way, aimed at societal participation" (our translation, Lieten & Smet, 2012).

This definition reflects very well the philosophy and tone of the whole Concept Brief. It takes a somewhat neutral position as to the role of media in society and starts from the observation that our view of the world is a mediated one and that citizens need to be aware of this. The Concept Brief also stresses that users are becoming more active participants due to the digitalization of media. The

definition, therefore, stresses that users need the ability to actively and creatively use media. The goal of media literacy is societal participation. Whereas in other countries media literacy is often the result of a negative view on the effects of media (for an analysis of policy in the UK, see (Wallis & Buckingham, 2013)), the Concept Brief mainly takes an empowerment view. The document explicitly specifies this:

We start from a positive pedagogy/approach that does not start from fear nor from banning media or prohibiting media use, but from an emancipatory vision in which media is used for self-expression (our translation, Lieten & Smet, 2012).

A primary focus is thus put on the active use of media starting from the view that '(...) competences are already present in young persons' (our translation)(Lieten & Smet, 2012). The Concept Brief is not blind for some of the negative aspects of media nor the 'dangers' of social and interactive media such as cyberbullying, sexting and grooming, but policy should 'strive for a balance between 'emancipation' and 'protection' (Lieten & Smet, 2012). For the developers of the Concept Brief, it is thus apparent that media literacy necessitates a heightened level of self-regulation by the individual citizen. The policy states:

Instead of searching for answers in a multitude of regulatory measures the goal is to make citizens more resilient, alert and critical. From a user, perspective suggestions are offered that help to use different media in a positive and independent way (our translation, Lieten & Smet, 2012).

The Concept Brief on Media Literacy identified four strategic goals that are central to the current policy in Flanders. The strategic goals are in the Concept Brief discussed at length. We summarize them here briefly:

1. *Creating a strategic framework in Flanders.* The Concept Brief was seen as the start of a broader set of activities involving other stakeholders and policy fields. The document described the different institutions and actors and their possible role in media literacy.
2. *Stimulating competences.* A central focus of policy was in the development of knowledge, skills, and attitudes through both formal and informal learning. Being able to participate in society independently was seen as essential; both formal and non-formal education have a role to play.
3. *Creating an e-inclusive society.* Citizens should have equal opportunities in the information society. Particular attention suggested that media literacy addressed the needs of disadvantaged sections of society.
4. *Creating a safe and responsible media environment.* Especially for young people, reference was made to social media and issues related to privacy, cyberbullying and the role of parents, educators and youth workers in

guiding children and young people in their media use (our translation, Lieten & Smet, 2012).

Clearly, education is seen to play a central role in the realization of all of these goals. Media literacy is explicitly seen as a transversal issue that touches upon many different policy fields, terrains and includes different actors. The document referred at the Flemish level to the policy fields of media, education, youth, culture, welfare, innovation, and poverty reduction. It links to national policies for social integration, poverty reduction, social economy and urban development. At the level of cities and communes, the policy refers to the role of public access to media and new media. The Concept Brief mentioned the role of the regulator, the public broadcaster, commercial television and the radio sector, the written press, telecom operators, the gaming sector and the social network sector. It recognized the roles of formal education, higher education and universities, adult education, arts education and teacher training (Lieten & Smet, 2012). In order to promote coordination, the Concept Brief reaffirmed government's intention to establish a dedicated Knowledge Center for Media Literacy and described its goals and functioning:

This Knowledge Center will in the first place build on existing—but scattered—initiatives and expertise and will coordinate them. It will take action if existing initiatives are insufficient or show lacunae. The Center will play a stimulating function with specific attention to the needs of specific target groups. The acquired knowledge should flow to all relevant actors in the media, cultural and educational fields (our translation, Lieten & Smet, 2012).

The Role of the Flemish Public Broadcaster

Flanders is characterized by a dual media system with strong public service media, the Flemish Radio and Television (VRT). Public service media is a regional policy in Belgium. The Flemish public broadcaster VRT is very popular attaining market shares of about 40% for television and 60% for radio. Its public funding has decreased over the last decade. It now has a budget (combining 2/3 of public revenue with 1/3 of commercial revenue) of about 400 million euros annually, which is at the bottom of Western and Northern European countries. The public broadcaster has a wide remit in the areas of information, culture, education, entertainment, and sports.

The government considers the three priorities: discussing difficult societal topics through documentary production, support for language skills, and also media literacy. The latter is specified as one of the tasks of VRT and related to people's participation in society and economy. Children, youngsters, and elderly people are identified as critical target groups of media literacy initiatives. Concerning the public broadcaster, the Concept Brief states that:

The VRT can, as part of its educational mandate, contribute considerably to media literacy. In its diverse programs and over the different channels it

can help to stimulate the diverse competencies, and it can give space to listeners and viewers to create their own content. The VRT can develop an offer to make less competent media users aware of new applications and can open up her media archives to an as broad as possible audience (our translation, Lieten & Smet, 2012).

This vision was—at about the same time the Concept Brief was released—translated into the Management Contract 2012-16 between the Flemish Government and the VRT. This binding contract sets out the mission, goals, and indicators the public broadcaster has to achieve. Concerning media literacy, the Management Contract makes these stipulations in Strategic Goal 23:

23. The VRT contributes, as part of its educational remit, to the media literacy of all Flemish citizens.
- 23.1. The VRT contributes to a democratic and media-conscious attitude of its viewers by way of independent information about media and by way of inclusive general programming, learning citizens to engage more critically and consciously with media. The VRT shows citizens in its general programming the possibilities and risks of media applications (e.g., social media, gaming, ...) and aspects of media use (e.g., privacy).
- 23.2. The VRT actively works together with other stakeholders to support media literacy. Within a year after which this Management Contract takes force, this has to result in a dedicated action plan.
- 23.3. The VRT develops a specific and adapted program offer for kids, youngsters and digital immigrants to acquaint them with (new) media applications. The VRT offers specifically for this group the possibility of self-experimentation with creation and co-creation of media.
- 23.4. Within its budgetary means and its programming possibilities, the VRT supports the policy of the Flemish Government concerning media literacy (our translation, VRT, 2012).

The VRT translated the requirements of the Management Contract into its Action Plan on Media Literacy (VRT, 2013), which concretely indicated what television and radio programs will contribute to media literacy, particularly in relation to children, youth, and digital immigrants. Additionally, the VRT indicated that it will stimulate the consciousness about media literacy within its workforce:

(...) the VRT will make its collaborators aware of the importance of media literacy and inform them on how to integrate it in its offer (our translation, VRT, 2013).

An analysis of how the VRT has implemented this policy is outside of the scope of this article. What is clear is that as a direct result, the VRT has over the past five years supported many initiatives from third parties by providing airtime,

integrating media literacy concepts into programming and promoting initiatives on its radio channels and television stations.

Establishment of a Knowledge Center for Media Literacy

In the summer of 2012, the Flemish government launched a call for proposals for the establishment of a Knowledge Center for Media Literacy (Departement Cultuur, Jeugd, Sport en Media, 2012). Its mandate is defined as follows:

The Knowledge Center for Media Literacy stimulates knowledge building and transfer from organizations and individual professionals within the broad field of media literacy. The Knowledge Center offers support for practical approaches and develops good practices. The Knowledge Center actively works together with relevant stakeholders from government and the media literacy movement and stimulates dialogue and collaboration between stakeholders' (our translation, Departement Cultuur, Jeugd, Sport en Media, 2012).

The document set out the strategic and operational goals for the Knowledge Center. Some elements included these provisions:

The Center adequately supports organizations working in the field in the development of knowledge and in the development of best practices:

- The Center keeps the mapping of the field of media literacy up-to-date with a focus on needs, practices, organizations (...)⁵;
- The Center provides government and the field with information on current trends related to media literacy. It distributes research and publications appropriate for the sector;
- The Center operates close to the field and is aware of the issues at stake and the needs of the organizations in the field;
- The Center searches for and disseminates innovative practices and trends in support of organizations and practitioners in the field to inspire and contribute to new learning;
- The Center takes initiatives that bring together training, scientific research, and best practices;
- The Center takes initiatives to provide—and exchange—education and training concerning media literacy for the organizations and practitioners in the field;
- The Center contributes to structural exchange between organizations and creates collaborative networks within the field;

The Center is a partner for the Flemish Government regarding policy preparation and regarding policy implementation:

⁵ The government ordered a mapping exercise on media literacy in 2012 which was used as a background document to formulate its policy on media literacy (see: Vermeersch, Van den Cruyce, Vandenbroucke, & Segers, 2012)

- The Center provides Government with appropriate information on the stats of the media literacy field in Flanders;
- The Center provides Government with a platform to assess new policy initiatives and to develop new partnerships;

Media literacy thinking and practice are further spread (among the Flemish population):

- The Center actively disseminates up-to-date information on its work, available knowledge and relevant research to the broad public;
- The Center is a clearing house for the field and refers to the right organization in the field;
- The Center sensitizes actors in the field or the general public (our translation)(Departement Cultuur, Jeugd, Sport en Media, 2012).

From the description of the strategic and operational goals, it became clear that the Government wanted an intermediary organization in support of the already existing initiatives in Flanders. The region is characterized by a number of small and medium social and civil society organizations that play an important cultural role in society. A lot of these organizations focus on youth, media, culture, education, etc. and have activities that are linked or can be linked to media literacy (Bens, Segers, Boudry, Van Houcke, & Mariën, 2014; Vermeersch, Van den Cruyce, Vandenbroucke, & Segers, 2012). The government did not want to duplicate the work of these organizations. The document states that:

(...) (The Center) uses existing initiatives, mobilizes its knowledge and practices and raises awareness. (...) In short, the Knowledge Center does not ‘duplicate’ what already exists, it complements and strengthens (our translation, Departement Cultuur, Jeugd, Sport en Media, 2012).

Three consortia submitted proposals for consideration in 2012. After an evaluation procedure, the Government granted one of the consortia with the task to establish a Knowledge Center on Media Literacy. The consortium consisted of 12 partners from the media literacy field, Flemish Universities and Vocational Colleges⁶ This consortium selected five experts to form the core management of the Center. By selecting the experts from the ranks of the participating organizations, the Center became operational on January 1, 2013 (IBBT, 2012). The first contract ran for two years and the government translated the strategic and operational goals into measurable indicators (Vlaamse Regering, 2012).

⁶ SMIT-Vrije Universiteit Brussel, MICT-UGent, Cemeso-Vrije Universiteit Brussel, ICRI-Katholieke Universiteit Leuven, Javi-Jeugdwerknet vzw, Katholieke Hogeschool Limburg, LINC vzw, MAKs vzw, MIOS Universiteit Antwerpen, Provinciale Hogeschool Limburg, REC Radiocentrum, Thomas More Hogeschool, Stuurgroep Volwassenenonderwijs.

Media Literacy under the Coalition Government Bourgeois I 2014-19

Moving closer to the present day, a new coalition government Bourgeois I formed in 2014, consisting of the conservative nationalist party N-VA, the Christian Democrat party CD&V and Open VLD, the liberal party. This government's term started in the fall of 2015. The Flemish Government Agreement 2014-2019 only briefly mentioned media literacy and the role of the Knowledge Center for Media Literacy:

Media literacy and digital literacy are essential. We will close the digital divide. Also, vulnerable groups in society should have appropriate access to media and should be media literate. (...) Media users should acquire the necessary skills to be able to use (social) media. The Knowledge Center for Media Literacy should be able to develop a coordinated approach in collaboration with partners in the field and with policy domains such as education, welfare and culture' (our translation, Vlaamse Regering, 2014a).

However, in its Policy Note 2014-19, in which the new Minister of Culture, Media, Youth and Brussels, Sven Gatz, of the liberal party Open VLD, set out his views on media policy. In this document, Gatz reaffirmed the importance of media literacy. What is even more, he made media literacy the central theme of his ministry for the five-year term. The document puts the user squarely in the center of media policy:

The media policy I will deploy, in the first place starts from the user. The user must be able to use media consciously and critically, especially in the current digital broadband era in which the user does not passively receive media, but actively participates in the media. Active use requires accessible and affordable media. I will by way of an appropriate media literacy policy prepare all users for the digital society (our translation, Gatz, 2014).

The Policy Note 2014-19 provisions on media literacy were in line with the Concept Paper Media Literacy of the former government. However, the new minister did not put his accents. Apart from a stronger emphasis on the individual responsibility of the user, the document focused more on future trends and changes in current media landscapes:

With the further development of a proactive and future-oriented Flemish media literacy policy, I want to anticipate emerging trends and new forms of media. The aim is that the Flemish citizen learns to actively and critically engage with the media of today, to prepare for the new media of tomorrow" (our translation)(Gatz, 2014).

The Knowledge Center for Media Literacy was confirmed as a crucial element in the implementation of the policy on media literacy:

To be able to keep up with the fast digitalization and further mediatization of society, media literacy needs to be further developed in the coming years. I will, therefore, give the Knowledge Center for Media Literacy more responsibilities. I will develop the Center into the reference point for media literacy in Flanders. It will take new actions and develop new initiatives, follow up on actual trends and reach out to specific target groups (our translation, Gatz, 2014).

Although this Policy Note 2014-19 was the work of the Minister of Media and Culture, it is reaffirmed that education plays an important role in media literacy. The Knowledge Center—although financially part of the budget of the media ministry—needs to closely work together with the education sector. As in the Concept Brief on Media Literacy, it is confirmed that media literacy is a transversal issue, deeply focused on digital and social media, that needs to be widely supported by different governmental departments and other players (Gatz, 2014).

The Public Service Broadcaster's Mandate for Media Literacy, 2016-2020

In the new Management Contract between the Flemish Government and the public broadcaster VRT, for the period 2016 to 2020, media literacy was again included in the contract. This time, media literacy was framed in the context of the average user becoming more active and in relation to the rising importance of digital media in day-to-day life:

The media user is no longer a passive receiver of programs. He has access to platforms that allow the production and distribution of individual content. He can, and this happens increasingly, exchange content through peer-to-peer mechanisms, give feedback to the public broadcaster VRT, be it positive or negative, which has the potential for an interesting dialogue between media user and media professional" (our translation, VRT, 2016).

Within this context, and given the growing importance of digital media and digital communication in daily life, in the relation between citizens and government, in the economy, health, education, etc., being 'media literate' is an important competence for each Flemish citizen. Media users in all strands of society should be able to use media in a conscious, critical and active way. The public broadcasting service should be aware of this and should contribute to media literacy" (our translation, VRT, 2016).

What actions stem from this mandate? Specific targets and outcomes were less precisely developed in this Management Contract than in previous years. Very generally, the contract states that the VRT '(...) should contribute to the media literacy of Flemish media users' (VRT, 2016). After a few general stipulations, Government expects the VRT to develop its internal Action Plan Media Literacy further. The Management Contract does stipulate that the public service

broadcaster should consult with and work together with external partners such as the Knowledge Center for Media Literacy (VRT, 2016).

The Knowledge Center for Media Literacy – Second Contract

The first contract organizing the Knowledge Center for Media Literacy ran from 2013 to the end of 2014. The new coalition Government had thus to decide whether or not to prolong the contract—and existence—of the Knowledge Center. As we have discussed, the Minister of Media, Sven Gatz emphasized the importance of media literacy and supported the Knowledge Center in his Policy Note. He even indicated the Knowledge Center could have broader responsibilities, noting:

To help the media users to handle privacy consciously, the Knowledge Center for Media Literacy, in collaboration with all partners involved in policy areas such as education, welfare, and youth will get more scope (our translation, Gatz, 2014).

In 2015, a new contract was signed for the period 2015-17 between the Knowledge Center for Media Literacy and the Minister for Media (Vlaamse Regering, 2014b). The new contract was the result of a consultation process between the Flemish Government, the Knowledge Center and the media literacy stakeholders. As part of this process, the Knowledge Center carried out a broad consultation process with the field, which culminated in a White Paper on Media Literacy (Vanhoucke, 2014). The Knowledge Center also formulated its Vision Text 2015-17 in which it sets out its aims and goals for the three year period (Mediawijs.be, 2014). The new contract foresees a stronger coordinating role for the Knowledge Center, expects a stronger collaboration with private industries, puts more emphasis on the public role of the Center, (e.g., by way of extensive media campaigns), and expects the Center to play a more prominent role in public debates. The budget was raised from 450,000 euro to 600,000 euro annually. In short, Government is expecting that the Knowledge Center shift from a purely intermediate organization to an organization that is more focused on public outreach and public debate.

Conclusion

As this research demonstrates, media literacy policy in Flanders has shifted over time. Since the mid-2000s, the Parliament—and more specifically individual parliamentarians in the Commission for Media—took the lead in the public discussion of media literacy. Most of these debates were sparked off by discussions on the harmful effects of media on children and youth, on adverse effects of violence in games, on the appropriateness of stricter rules from the Film Rating Authority, or on the problems of opinion formation through the news in digital media.

Ironically, the resulting debates on media literacy did not end in a protectionist attitude towards media, nor in calls for stricter media regulation. Right from the start, parliamentarians and politicians pleaded for an

emancipatory/empowerment approach to media literacy. The policies later formulated and adopted that same empowerment philosophy. This ambivalent attitude between an initial protectionist reflex and a subsequently more emancipatory approach continues to be part of the current political discussions on media literacy.

The empowerment philosophy seems to be informed by two considerations that emerge throughout all discussions and are also referred to in many of the policies: (1) the realization that a strong and controlling regulatory approach to media in support of the protection of users—more specifically children—is no longer effective in a digital environment; and (2) the belief that the individual is able—in an autonomous and sensible way—to handle and use media individually.

The discussion in Flanders and the position taken in the different policy documents is therefore in line with recent theoretical work on media literacy in the more culturalist tradition, that starts from the autonomy of the public in its relation to media (Buckingham, 2008; Hobbs, 2011b; Hoechsmann & Poyntz, 2012). Media literacy is seen as a way to support and strengthen critical competences of the user in the absence of stringent media regulation (O'Neill, 2010; Wallis & Buckingham, 2013). In both the political discussions as in the policy documents, the protectionist reflex remains much more present than in the often optimistic theoretical work on media literacy. Whereas the UK built their policies on more protectionist interpretations of media literacy (Wallis & Buckingham, 2013), Flanders has taken another position. In the 2008 Policy Brief by the Minister of Media Peeters, media literacy was for the first time mentioned in formal media policy. Emphasis was put on the critical skills a citizen needs to be able to assess information. Later texts and especially the Concept Note on Media Literacy emphasized the creative and communicative skills related to producing and distributing ‘user-generated’ content. Again this is in line with the ‘autonomous,’ ‘individual’ and ‘creative’ use of media that is often stressed in the empowerment philosophy.

What should be stressed in the Flemish context is that there is less attention to media literacy and citizenship. Often the discussion focuses on social participation and the daily functioning of individuals in society. This participatory approach reflects an awareness that extra initiatives are necessary for more vulnerable and disadvantaged groups in society. In future years, it will be interesting to see whether or not the civic functions of media literacy emerge as a policy priority.

This paper documents how the Flemish Ministers of Media used two central instruments regarding media literacy policy: (1) they set up and financed the Knowledge Center for Media Literacy, (2) they inscribed media literacy in the educational remit of the public service broadcaster VRT. This has resulted in a unique constellation in which media literacy is broadly supported—especially in the Flemish context in which the public service broadcaster plays an important role and has a substantial market share. At first, the Knowledge Center for Media Literacy was mainly seen as an intermediary organization that supports and coordinates existing media literacy initiatives. By inscribing the goal of media

literacy in the educational remit of the public service broadcaster, the government ensures that the theme reaches a large audience. Seeing that the public service broadcaster also plays an important role vis-à-vis children through its children channel, this is an important age group that can be specifically targeted.

What is interesting to note is that—at least up until now—support for media literacy crosses party lines. The Resolution of Parliament in support of media literacy has been supported by all larger political parties, except for the ultra-nationalist party. Under three different coalition governments—with different constellations of political parties in the coalitions—there has been support for media literacy. The ministers responsible for media—Peeters from the Christian Democratic Party CD&V, Lieten from the Social Democrat Party sp.a and Gatz from the liberal party, Open VLD—have all supported policies on media literacy. Especially Lieten sp.a and Gatz Open VLD have made media literacy a central theme of their media policies and initiatives.

The case of media literacy in Flanders raises hope for the adoption of national media literacy policies in other countries. Politicians and parliamentarians seem to be well aware of current changes in media and their social consequences. The Flemish case shows that these discussions, which may often focus on the negative consequences, can gradually shift towards empowerment and that different political ideologies can rally around a shared vision for media literacy. This means that media literacy can become a long-term goal that is supported by different political factions and coalitions.

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РАЗВОЈ ДИГИТАЛНИХ ВЕШТИНА И КОМПЕТЕНЦИЈА: БРЗИ ПРЕГЛЕД СТАЊА 13 МОДЕЛА ДИГИТАЛНЕ ПИСМЕНОСТИ

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Сажетак

Развој дигиталне писмености постао је кључни део агенде научника, стручњака и творца политика широм света. У том циљу, у пракси се често користе концептуални модели дигиталне писмености. Како ови модели неизбежно утичу на обликовање јавних дебата о дигиталној писмености, важно је да се стекне увид у те концепте и идеје које они носе. Циљ овог рада је: 1) разјаснити сложеност и разноврсност концепата који се односе на дигиталне вештине, писменост и компетенције; 2) упознати концепте који се промовишу у 13 изабраних модела дигиталне писмености; и затим 3) анализирати концепте који обликују и/или преовлађују у научним и јавним дебатама о дигиталној писмености. Резултати овог рада се заснивају на консултованој литератури и краткој анализи 13 модела дигиталне писмености објављених и примењиваних у пракси између 2004. и 2014. године. Оквири су утврђени по принципу обрасца и вршило се поређење 39 показатеља подељених у 5 категорија: оперативни, технички и формални; информациони, когнитивни; дигитално комуникациони; показатељи стварања дигиталног садржаја; и стратешки. Резултати анализе указују на неуједначену усредсређеност на одређене вештине и компетенције са посебним нагласком на оперативне вештине, вештине претраживања информација и комуникационе вештине.

Кључне речи: дигитална писменост, дигиталне вештине, дигиталне компетенције, концептуални модел.

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УВОД

Садашња дигитализација сервиса, јавних и приватних, довела је до по-већања опасности да општа популација буде или да постане искључена из дигиталног света (Хелспер и Рајсдорф, 2016 (Helsper & Reisdorf, 2016); Марјан и А. Продник, 2014; Ван Дерсен (van Deursen) и Ван Дајк (van Dijk) 2014). Овај такозвани дигитални обрт представља претњу за свакога ко не поседује неопходне вештине да овлада дигитализацијом различитих областим живота (Хелспер, 2011). Најновије студије су показале да друштвено-економски контекст појединача више није једини разлог искључености из дигиталног света и да механизми те искључености превазилазе оквире друштвено-економски рањивих група (Схурманс (Schurmans) и Марјан, 2013). Штавише, истраживања стручњака на терену, попут оних које су вршили Ван Дерсен и Ван Дајк (2014), и Хелспер и Ајнон (Eynon) (2013) показала су да су дигиталне вештине и компетенције, и способност самосталног и стратешког коришћења дигиталних медија, све значајнији за обезбеђивање партиципације у друштву.

Ово наглашавање све већег значаја дигиталних вештина и дигиталне писмености је у супротности са присутном нејасноћом у вези са различитим типовима дигиталних вештина, писмености и компетенција које се користе у истраживању, образовању или области е-инклузије и њиховим неразликовањем: „Најнепосредније, очигледне чињенице у вези са дигиталном писменошћу су да постоји мноштво дигиталних писмености и да је изузетно велика понуда различитих врста концепата“ (Ланкшир и Нобл (Lankshear & Knobel), 2008, стр. 2). Развој дигиталних вештина и компетенција је, међутим, постао кључни део агенде научника, стручњака и творца политика широм света како би се грађани оспособили да у потпуности партиципирају у данашњем све више дигитализованом друштву. У том циљу, у пракси се често користе концептуални модели дигиталне писмености. Како ови модели неизбежно утичу на обликовање јавних дебата о дигиталној писмености, важно је да се стекне увид у те концепте и идеје које они носе. Циљ овог рада је: 1) разјаснити сложеност и разноврсност концепата који се односе на дигиталне вештине, писменост и компетенције; 2) упознати концепте који се промовишу или који су намерно напуштени у 13 изабраних модела дигиталне писмености који су објављени и примењивани у пракси у периоду од десет година између 2004. и 2014. године; и затим 3) анализирати концепте који тренутно обликују и/или преовлађују у научним и јавним дебатама о дигиталној писмености.

РАЗЈАШЊЕЊЕ КОНЦЕПТА ДИГИТАЛНЕ ПИСМЕНОСТИ

Дигитална писменост, вештина и компетенције: која је разлика?

Прво треба разјаснити аспект концептуалне разлике између дигиталних вештина, писмености и компетенција. Често се ови концепти користе као синоними иако се по значењу разликују (Мартин и Груђецки (Grudziecki), 2006, стр. 256). Ала-Мутка (Ala-Mutka, 2011, стр. 18) дефинише компетенције као „способност примене знања и вештина на различите садржаје, као што су рад, доколица или учење“. Према раду Ван Дерсена (2010) писменост подразумева одређене компетенције и знање док се вештине односе више на технички аспект ових компетенција и знања. У својој дисертацији о интернет вештинама Ван Дерсен (2010, стр. 71) разликује четири типа практичних вештина: 1) оперативне вештине или такозвано „button knowledge“, које се односи на оперативно руковање рачунаром и интернет софтвером и хардвером; 2) формалне вештине или способност да се разумеју и користе формалне карактеристике рачунара и интернета као што су хиперлинкови или кретање међу интернет страницама; 3) информационе вештине или вештине које захтевају претраживање, селекцију, руковање и критичко оцењивање садржаја интернета и дигиталних медија; и 4) стратешке вештине или способност да се интернет користи за лични бОљитак. У свом каснијем раду о интернет вештинама додао је пет или шест врста вештина које је назвао комуникационим вештинама и вештинама стварања садржаја како би упутио на вештине које су неопходне за партиципирање у онлајн мрежама, стратегијама онлајн комуникацији и практичне вештине потребне за креирање и дистрибуирање садржаја на интернету (Ван Дерсен, Хелспер и Ајнон, 2014; Ван Дајк и Ван Дерсен, 2014). Слично тумачење практичних вештина налази се у Европском оквиру квалификација (Европска комисија, 2008, стр. 11). У овом оквиру се прави разлика између знања, вештина и компетенције. Знање је дефинисано као „скуп чињеница, начела, теорија и практичног знања унутар подручја рада или учења“. Вештине се односе на „способност примене овог знања“ док се компетенцијом сматра „доказана способност коришћења свих знања и вештина за лични бОљитак“.

Стога дигиталне вештине треба посматрати више као практичне и мерљиве исходе медијске, информационе или дигиталне писмености. Концептуализација дигиталне писмености Мартина и Мадигана (Martin and Madigan, 2006, стр. 255) потврђује разлику између вештина и писмености: „Дигитална писменост је свест, становиште и способност особе да на прикладан начин користи дигиталне алате и објекте за идентификовање, приступање, управљање, интеграцију, евалуацију, анализирање и синтезу дигиталних извора, формирање новог знања, стварање медијских израза и комууницирање са другима у специфичним животним ситуацијама како би

омогућио конструктивну друштвену акцију и могао да размишља о овом процесу". Међутим, ово тумачење дигиталне писмености такође показује сву комплексност различитих врста вештина које могу да се сврстaju у дигиталне вештине. У горе наведеној дефиницији упућује се на разноврсност аспеката који се крећу од простог приступа ка софистицирањим елемената као што су интеграција, евалуација и анализа медијских садржаја. Када се учи о дигиталним вештинама, писменостима и компетенцијама суштински је важно да се узме у обзир концептуална разлика, сва њихова сложеност и вишеслојни карактер.

Неразумевању концепата додаје се и други аспект, а то је обједињавање медијске писмености, транслитерације и дигиталне писмености. Јасно је да у овом тренутку није постигнута општа сагласност о томе како ови различити концепти утичу једни на друге, да ли се преклапају и да ли могу да буду инкорпорирани у свеобухватни концепт. У том контексту, медијска писменост се дефинише као „способност суочавања са информационим форматима који су се „устремили“ на корисника (Боден (Bawden), 2008, стр. 30). Међутим, када корисници желе да се изборе са „повлачењем“ информационих формата, друга врста писмености ступа на сцену, као што је информациона писменост, морална начела или социјална писменост (Ланкишир и Нобл, 2008). Потер (Potter, 2004, стр. 58) дефинише медијску писменост као „становишта са којих се отварамо према медијима и тумачимо значење порука са којима се сусрећемо“. Концептуално обједињавање се поново наглашава у четири основне активности у оквиру медијске писмености које могу да се одреде као: приступ и коришћење, разумевање, критичко оцењивање и креативност (Бакингем (Buckingham), 2003; DTI¹, EAVI² и Европска комисија, 2011). Све то чини приступ медијској писмености заснован на вештинама (Ливингстон (Livingstone), 2004; Потер, 200) који води ка већини иницијатива за истраживање ове теме. Међутим, Хохсман (Hoechsmann) и Појнц (Poyntz) (2012) тврде да значење и утицаји медија шире добробит која превазилази питање вештина и да је потребно више суштинских питања која се односе на друштвени и политички утицај медија на наше животе. Други аутори покушавају да интегришу више облика писмености у јединствен концепт. С том намером Фро-Мегс (Frau-Meigs) (2012) уводи концепт транслитерације који она дефинише као: 1) способност прихватања целокупности мултимедија која обухвата вештине читања, писања и ослањање на све расположиве алате (од хартије до слике, од књиге до Викија³); 2) способност кретања кроз различите

¹ DTI – Danish Tech Institute. – Прим. ћркв.

² EAVI – The European Association for Viewers' Interests. – Прим. ћркв.

³ Wiki – интернет страница која се користи за посебну врсту хипертекстуалне колекције докумената или за посебну врсту програма који се користи за стварање такве документације – Прим. ћркв.

области, што захтева способност претраживања, евалуирања, тестирања, оцењивања и модификовања информација у складу са релевантним контекстом њиховог коришћења (као што је код, вест и документ).

Међутим, циљ овог рада није да пружи одговор на ове дебате о знању, вештинама, компетенцијама или различитим врстама писмености. Сврха овог рада је анализа и поређење 13 постојећих модела дигиталне писмености, помоћу заједничких показатеља. У овом раду модели дигиталне писмености обухватају знање, вештине и компетенције. Знање посматрамо као информацију, свест и разумевање корисника о постојању и коришћењу различитих дигиталних алата. У складу са литературом која је узета у обзир, дигиталне вештине дефинишемо више као практичну, мерљиву примену одређеног знања и способности у коришћењу дигиталног. Дигиталне компетенције се разматрају као способност примене наведеног знања и вештина у различитим животним контекстима, од личног до професионалног. У том смислу, дигитална писменост је скуп свести, практичних вештина и компетенција неопходних корисницима да приступе, разумеју, евалуирају, размењују са другима и креирају дигитални садржај, плански и применљиво, како би испунили личне и професионалне циљеве.

ОД ОПЕРАТИВНИХ ВЕШТИНА ДО СТВАРАЊА ДИГИТАЛНОГ САДРЖАЈА И ШИРЕ

Претходни одељак већ се односио на тешкоће у одређивању и дефинисању различитих врста вештина које могу да се разматрају у оквиру дигиталне писмености. Модел Ван Дерсена (2010) се експлицитно наводио зато што је један од неколико потпуних и, у исто време, приступачних оквира. DIGCOMP⁴ оквир који је развио Ферари (Ferrari 2013) је исцрпан, али мање применљив због изузетне сложености. Док је Ван Дерсенов модел заснован на 6 врста јасних и практично оријентисаних вештина, DIGCOMP модел обједињује 5 области дигиталних компетенција и укупно 21 врсту компетенција. Свака од ове 21 компетенције се затим преводи у 3 нивоа спретности (које се могу поредити са основним, средњим и напредним) и неколицину практично оријентисаних интерпретација у смислу жељеног знања, вештина и ставова. Дисертација Ван Дерсена (2010) се у великој мери заснива на раду Стаярта (Steyaert 2002) и Ван Дајка (2005), али се у њој спомиње знатан број постојећих модела и интерпретација дигиталних вештина које Ван Дерсен онда користи за детаљан опис сваке врсте вештина и активности на које се ослањају. Исто се односи и на DIGCOMP модел који је развио Ферари (2013) који унапређује план рада на дигиталним компетенцијама које је развила Ала-Мутка (2011).

⁴ DIGCOMP (The Digital Competence Framework for Citizens – Оквир дигиталне писмености за грађане) – оквир који је Јевропска комисија развила као средство за побољшање дигиталних компетенција грађана – Прим. прев.

Сврха овог рада није да пружи детаљан преглед и опис свих постојећих врста дигиталних вештина. Постоји, међутим, неколико интерпретација које се истичу. Прва је категоризација коју је развио Џенкинс (Jenkins) (2006) која је занимљива зато што се у њој дигиталним вештинама приступа из партципаторске перспективе и перспективе засноване на заједници. Уместо пуког истицања индивидуалних атрибута, Џенкинс (2006, стр. 4) уоквирује оно што назива новим медијским писменостима као културним компетенцијама и друштвеним вештинама које се развијају кроз сарадњу и повезивање, и дефинише 11 различитих вештина:

- *Ирање*: способност експериментисања са окружењем у виду решавања проблема;
- *Извођење*: способност прихватања алтернативних идентитета у сврху импровизације и откривања;
- *Симулација*: способност објашњавања и стварања динамичних модела реалних процеса у свету;
- *Присвајање*: способност смисленог узимања узорка и поновног слагања садржаја;
- *Симулшани рад*: способност осматрања окружења и, по потреби, пребацања пажње на истакнуте појединости;
- *Дискрибуирана стознаја*: способност смислене интеракције са алатима који проширују менталне капацитете;
- *Колективна интелигенција*: способност удруживања знања и саветовања са другима у општем циљу;
- *Расуђивање*: способност евалуације поузданости и веродостојности различитих извора информација;
- *Трансмедијска навигација*: способност праћења тока радњи и информација кроз више модалитета;
- *Повезивање*: способност претраживања, синтетизовања и дисеминације информација;
- *Вођење дујалота*: способност кретања кроз различите заједнице, распознавања и поштовања различитих перспектива и усвајања и праћења алтернативних норми.

У Џенкинсовом приступу јасно се избегава технолошки детерминисано становиште и, штавише, расправља о основним али кључним вештинама и компетенцијама, као што су експериментисање, способности решавања проблема или способност удруживања знања и кретања ка општим циљевима заједно са другима.

Други допринос вредан помињања је Ешет-Алкалайева (Eshet-Alkalai, 2004, стр. 93) категоризација дигиталне писмености, која обједињује 5 врста писмености, заснована на „великој разноликости комплексних, когнитивних, моторних, социолошких и емоционалних вештина“:

- *Фотовизуелна љисменосћ*: способност разумевања визуелне представе у онлајн окружењима и графички приказаних и дизајнираних порука;
- *Ојисмењеносћ за рејродуковање*: способност репродуковања постојећих дигиталних садржаја у нове релевантне дигиталне садржаје (слично вештинама стварања садржаја, али је акценат на репродуковању);
- *Информациона љисменосћ*: когнитивне вештине неопходне за критично оцењивање медијског садржаја;
- *Ојисмењеносћ за разумевање на више нивоа*: способност читања и разумевања хипермедија и евалуације квалитета и вредности медијског садржаја;
- *Социо-емоционална љисменосћ*: вештине потребне за разумевање и примену правила у окружењима онлајн медија.

Приступ Ешет-Алкалай (2004) такође избегава технолошки детерминисано и на алатима засновано становиште дигиталних вештина. Истицањем когнитивних вештина и тумачење текста, слике и правила овим приступом се такође отвара дебата о вештинама и уносе се додатни елементи у дискусију који су кључни за усвајање и увећање користи од употребе садржаја дигиталних медија и онлајн окружења.

Уопште, модели и приступи који су горе поменути, односно Ван Дурсенов (2010), Фераријев (2013), Џенкинсов (2006) и Ешет-Алкалајев (2004), истичу да је потребан општи или прихватљив приступ који би подразумевао у исто време вештине засноване на алатима као што је „button knowledge“ заједно са комплекснијим основним компетенцијама као што су сарадња, социјалне или комуникационе вештине. Следећи одељак стога има за циљ да се утврде концепти изнети у 13 одабраних модела дигиталне писмености, а затим да се изврши анализа које вештине, компетенције и врсте писмености јесу, а које нису споменуте у ових 13 изабраних модела, и да на тај начин обликује и/или доминира у научној и јавној дебати о дигиталној писмености.

МЕТОД: БРЗИ ПРЕГЛЕД СТАЊА

Истраживање спроведено у овој студији је брзи преглед стања. Брзи преглед стања омогућава унакрсну анализу више студија случаја на основу предефинисане групе варијабли. Овај метод може да се користи на почетку истраживачког пројекта како би се утврдила група релевантних студија случаја специфичних за одређену област и како би се добио користан преглед постојећег истраживања о некој теми. Организовање варијабли и показатеља у јединствени образац олакшава утврђивање и анализу слич-

ности и разлика међу њима. Стога, може да се врши дубинска анализа неких од студија случаја како би се боље разумеле повезаности које се претпостављају или су већ утврђене међу случајевима (Ван Ауденхове, Балден (Baeldens) и Марјан, 2016).

Овај метод је изабран за истраживање пошто омогућава брз, али систематичан начин утврђивања групе концептуалних модела на којима се заснива дигитална писменост у пракси, као и утврђивања разлика међу њима у погледу вештина и компетенција које се у њима износе. Мале студије случаја у овом истраживању су 13 модела дигиталне писмености. Како су у њима изложене различите групе вештина и компетенција које су потребне појединцу да би се сматрао дигитално писменим, брзи преглед стања се чинио ефикасан метод за утврђивање тенденција, сличности и разлика међу моделима. Детаљним разматрањем концептуалних модела идентификовано је 39 показатеља, од којих је сваки поменут бар једном у разматраним моделима. Затим су ови показатељи груписани у табелама. За сваки показатељ је дата дефиниција заснована на консултованој литератури. Организовање показатеља у један образац омогућило је општи преглед концепата који се износе кроз постојеће моделе дигиталне писмености, али и анализу више случајева сличности и разлика. У извесном смислу, овај образац је олакшао сагледавање концептуалног развоја модела током времена правећи одређене обрасце који су видљиви.

Ових 13 модела дигиталне писмености изабрано је на основу неколико критеријума. Као прво, требало је да стручна литература доследно упућује на моделе и да су они у њој признати. Друго, модели су морали да буду релевантни у разматрању дигиталне писмености кроз концептуалне новине и обимне анализе широког спектра дигиталних вештина и компетенција. Предност је дата радовима у којима се износе оригиналне групе вештина и компетенција, али и методе за вредновање дигиталних вештина, примењена самостална емпиријска проучавања или анализа установљене теорије, и емпиријска истраживања у оквиру дигиталних вештина. Треће, требало је да модели буду представљени у извесној мери као оквири засновани на класификацији знања, вештина и компетенција. На крају, модели су морали да буду публиковани у последњих десет година, између 2004. и 2014. године. Приоритет је дат новијим публикацијама, али се узимао у обзир и довољан временски период за утврђивање развоја током дебате.

Треба споменути да су неке од изабраних публикација знатно обимније од других. Важно је узети у обзир да књиге на ову тему (на пример, Ван Дајк и Ван Дерсен, 2014), обимнији академски радови (на пример, Белшо (Belshaw), 2011) или извештаји институција (Ала-Мутка, 2011; Хобс (Hobbs), 2011) детаљније обраћају тему и у њима се разматра широк спектар показатеља у поређењу са сажетијим радовима, као што су чланци у часописима (на пример, Калвани (Calvani), Картели (Cartelli), Фини и

Раниери, 2008; Харгитај (Hargittai), 2007). Јасно је да доступност више детаља у оригиналним радовима резултира детаљнијим описом у нашој анализи. Другим речима, различит обим и дубина садржаја изабраних публикација неминовно се рефлектују на образац.

Као што је већ споменуто, брзи преглед стања 13 изабраних случајева је резултирао обрасцем који садржи 39 показатеља (видети Додатак, табела 1). Случајеви су распоређени у колоне, а показатељи у редове. Показатељи су подељени у пет категорија: оперативни, технички и формални; информациони, когнитивни; показатељи дигиталне комуникације; показатељи стварања дигиталног садржаја; и стратешки. Уведена је још једна колона са збиром случајева у којима се појављује сваки индикатор. Образац је ефикасно средство унакрсне анализе случајева пошто омогућава увид у то који од индикатора је на највишој, а који на најнижој позицији.

Конечно, када је направљен образац, анализирано је 13 случајева. Циљ ове анализе је био да се утврде сличности и разлике међу моделима; развој током времена; и који показатељи су добро и мање добро представљени. Треба споменути да анализа није статистичка, иако су у њој повремено коришћени бројеви (на пример, број модела x се односи на индикатор y). Бројеви се користе искључиво да би се јасније показале разлике међу моделима и показатељима. У студији се не користе никакви статистички програми нити друге технике за утврђивање узајамности. Резултати проистичу из визуелне анализе обрасца која се заснива на прегледању литературе и могу да се допуне детаљним познавањем студија случаја.

КОНЦЕПТУАЛНЕ ОСНОВЕ И РАЗЛИКЕ ИЗМЕЂУ 13 МОДЕЛА ДИГИТАЛНЕ ПИСМЕНОСТИ

Образац служи за унакрсну анализу 13 модела дигиталне писмености на два нивоа (Ван Ауденхове и др., 2016.). Први ниво анализе је приказан хоризонтално, између различитих показатеља у случајевима. Тиме се у центар пажње стављају сами показатељи и циљ је одговорити на питање који су индикатори рангирали добро који лоше. Анализа може да води ка иштању које се односи на разлоје шаквих резултата, или може да покаже и исправан метод добијања ових одговора: да ли то може бити да се објасни детаљним познавањем студија случајева? Да ли то може да се објасни на основу прегледане литературе? Да ли то потврђује оно што је нађено у прелиминарном прегледању литературе? (Ван Ауденхове и др., 2016, стр. 7). Други ниво анализе поставља питање: Зашто одређени показатељи нису укључени? (Ван Ауденхове и др., 2016, стр. 7). Одговоре на ова питања тражили смо и ширим прегледањем литературе, тражећи која су концептуална упоришта модела и да ли она могу да објасне непостојање одређених показатеља. Исто тако, већа пажња је била усмерена на период у коме су

модели били развијани или објављени, са намером да се резултати објасне развојем информационих и комуникационих технологија, образовања, политike или других релевантних контекстуалних чинилаца.

У овом одељку се не разматрају сви показатељи који су утврђени и укључени у образац. Предност је дата резултатима који су се чинили релевантним за дискусију о вредновању и промовисању дигиталних вештина и компетенција. Преглед показатеља и степен у ком су они присутни у различитим моделима дигиталне писмености приказани су у бројкама које се налазе после разматрања сваке категорије вештина и компетенција, а шира верзија обрасца са детаљнијим дефиницијама свих показатеља може да се види у извештају о Преиспитивању дигиталних вештина (Јордаке, Балден и Марјан, 2016). У разматрању резултата даће се напомена о обиму у ком су показатељи споменути у различитим случајевима. Ако су показатељи споменути у више од 11 модела, онда су они присутни у „многим или великим броју“ модела. Ако су утврђени у 7 од 10 модела, онда су део „довољног броја“ модела и ако су споменути у мање од 7 модела, део су „неких“ модела (5–6) или „неколицина или само неколико“ модела (мање од 5).

ОПЕРАТИВНЕ, ТЕХНИЧКЕ И ФОРМАЛНЕ ВЕШТИНЕ И КОМПЕТЕНЦИЈЕ

Прву разматрану категорију чине оперативне, техничке и формалне вештине и компетенције (видети Додатак, табела 2). У оквиру ових вештина и компетенција показатељи „познавање и коришћење хардвера“ и „познавање и коришћење дигиталних алата и софтвера“ анализирани су на основу практично свих модела дигиталне писмености. Иако су многи оквири показали да технолошке вештине или вештине које се тичу медија нису неопходно кључни чиниоци коришћења дигиталних садржаја, они су, ипак, основни услов: „Вештине које се односе на садржај на неки начин зависе од вештина које се односе на медије, јер ко не поседује вештине које се односе на медије неће ни доћи до тога да употреби вештине које се односе на садржај“ (Ван Дерсен, 2010, стр. 70). „Познавање и коришћење интернета је разматрано у довољном броју случајева током читавог периода који је испитиван, од најстаријих до најновијих модела. Како је интернет нагло постао део свакодневног живота, већина модела показује да су корисницима неопходне ове вештине и компетенције за коришћење овог медија у целости. У међувремену, такође је важно да истраживачи и креатори политика схвате комплексност чинилаца који утичу на начин на који људи користе интернет и мотивацију за тим“ (Ван Дерсен и др., 2014, стр. 7).

У довољном броју је споменут и показатељ „руковање дигиталним структурама“ који се односи на способност руковања различитим структурама

дигиталних медија, као што је успешно обављање радњи са менијима, хиперлиновима и асоцијативном навигацијом. У том смислу, Ешет-Алкалај разматра „описмењеност за разумевање на више нивоа“ тврдећи да се корисници суочавају са новим изазовима „хипермедија и нелинеарног мишљења“ и да су им потребне вештине за руковање новим структурата да се не би изгубили у дигиталном простору. Даље можемо да видимо да је у довољном броју случајева пажња била усредређена на вештине које се односе на „приватност и заштиту личних података“. Истраживања у области приватности су утврдила тренд пребацања одговорности на кориснике који је посебно присутан код сајтова за друштвено умрежавање (SNSs)⁵ (De Волф (De Wolf), Heijman (Heyman) и Пирсон (Pierson), 2013). У том смислу, за кориснике постаје важно да разумеју начин на који се деле њихови подаци и информације које се односе на њих, начин на који су доступне другима или их користе владе и корпорације. И, још важније, корисницима су потребне вештине које су неопходне да би се заштитили од откривања непотребних информација или оних које они не желе: „кључно је да корисници разумеју да ти сајтови (без адекватних подешавања за заштиту и критичких вештина) могу довести до губљења контроле над личним подацима и слања трећим лицима у рекламне сврхе“ (Ала-Мутка, 2011, стр. 10).

Са друге стране, тиме што су споменути у мање од пет случајева, трима показатељима ове категорије у моделима поклоњена је извесна пажња: „знање о томе где потражити помоћ“, „кретање кроз платформе“ и „безбедност уређаја“. Аутори, међутим, прихватају да ове посебне вештине или компетенције могу да докажу да су релевантне за различите нивое дигиталног знања и коришћења, што може да објасни њихово непостојање у неким моделима. „Кретање кроз платформе“, на пример, означава напредни ниво знања и вештина који може само да покаже да је користан за мањи број процената корисника, док „безбедност уређаја“ подразумевају неки други показатељи, као што су „познавање и коришћење хардвера“, „познавање и коришћење дигиталних алата и софтвера“ или „познавање и коришћење интернета“. Ипак, желели бисмо да истакнемо да би „знање о томе где потражити помоћ“ као показатељ могао позитивно да утиче на схватање дигиталних алата и на проналажење даље подршке за учење и развој. Знање о томе где тражити помоћ, било онлајн, било офлајн, повезано је са концептима као што су аутономија и решавање проблема који су означени као важни чиниоци развоја дигиталних компетенција (видети Јордаке и др., 2016). Ово знање може да оснажи појединце да у развоју својих дигиталних вештина буду независни, да траже информације и да решавају проблеме са којима могу да се сусретну (Марјан, 2016).

⁵ SNS – Social networking sites – Прим. прев.

ИНФОРМАЦИОНЕ И КОГНИТИВНЕ ВЕШТИНЕ И КОМПЕТЕНЦИЈЕ

Друга категорија која је разматрана обухвата информационе и когнитивне вештине и компетенције (видети Додатак, табела 3). Овде су у средишту пажње критичке вештине посредством показатеља „анализа и евалуација“ онлајн информација који се спомиње у свих 13 модела. Ешет-Алкалај иде дотле да тврди да је „способност исправне евалуације и процене информација постала 'вештина преживљавања' за научнике и кориснике информација“ (2004, стр. 99). С тим у вези, неколико анализираних оквира (Ала-Мутка, 2011; Боден, 2008; Калвани и др., 2008; Мартин и Груђецки, 2006) обједињује елементе Глистеровог (Glister) модела (1997), првог у коме се наглашава да су дигиталне вештине биле „ствар савладавања идеја, не притискања дугмади“ (Боден, 2008, стр. 13).

У многим моделима се такође разматра неколико показатеља груписаних у ову категорију у оквиру „информационе писмености“ која углавном обједињује способност „тражења“, „идентификације/одабира“, „лоцирања“ и „приступа/претраживања/похрањивања“ као и „дисеминације/дељења“ релевантних информација, уопштено се тиме бавећи „како се употребом различитих технолошких алата управља подацима и информацијама у било ком формату“ (UNESCO, 2013, стр. 13). Иако се теже стичу, једном развијене когнитивне вештине нису тако склоне брзим променама као оперативне вештине, вештине које се односе на медије које морају да држе корак са брзим и сталним развојем дигиталних алата (Ала-Мутка, 2011).

Поред критичких вештина, у довољном броју анализираних модела се разматрао и показатељ „вештине решавања дигиталних проблема“. Вештине решавања проблема могу позитивно да утичу на развој дигиталних вештина и компетенција помажући корисницима да тачно идентификују дигитални алат који им је потребан да испуне своје циљеве, али и побољшањем способности да користе дигиталне алате у решавању концептуалних, као и техничких проблема (Јордаке и др., 2016). Вештине решавања проблема су у анализираним моделима дефинисане као способност „идентификовања дигиталних потреба и извора, подизања на виши ниво важних одлука о већини прикладних дигиталних алата у складу са сврхом или потребом, решавања концептуалних проблема дигиталним средствима, креативног коришћења технологија, решавања техничких проблема, осавремењавање својих и туђих компетенција“ (Ферари, 2013, стр. 32). Научници су такође тврдили да у центру пажње не треба да буде само самостално решење проблема, као што је случај у данашњем образовном систему, већ на заједничком решавању проблема – тимским радом обављати задатке и развијати ново знање (Џенкинс, 2006; Ван Дајк и Ван Дерсен, 2014).

У овој другој категорији, показатељи који су споменути у довољном броју модела су: способност „синтетизовања“, „сумултаног вршења радњи“, „кретања кроз различите медије“ и „подржавања других у развоју дигиталних компетенција“. Сматрамо да се прва три показатеља односе на виши ниво коришћења и дигиталне софистицираности и да непоседовање ових вештина може да има ограничен утицај на дигитална знања и опште коришћење, што објашњава зашто нису укључени у неке моделе. Међутим, сматрамо да је посебно забрињавајуће то што је на последњи показатељ усмерено мало пажње пошто је подржавање других у развоју дигиталних компетенција важно у окружењу у коме се технологија развија брзим темпом диктирајући корисницима стално осавремењавање вештина како би пратили дигиталне промене. Истраживање је показало да корисници у развијању својих вештина и компетенција често зависе од различитих група подршке ван оквира формалног образовања (Хобс, 2010), тако да чланови породице, учитељи, пријатељи и колеге учествују у охрабривању и пружању помоћи у различитим ситуацијама (Ван Дајк, 2005). О овоме се може расправљати као о ставу и контекстуалном елементу, али и као о способности коју корисници могу да развију како би били у стању да подрже друге.

ВЕШТИНЕ И КОМПЕТЕНЦИЈЕ ДИГИТАЛНЕ КОМУНИКАЦИЈЕ

Трећа категорија показатеља односи се на вештине и компетенције дигиталне комуникације (видети Додатак, табела 4). Већина ових индикатора се налази у великом броју анализираних модела. Као прво, сви модели истичу вештине које се односе на показатеље „криирања“ и „разумевања порука“. „Да би добро читали, људи треба да овладају вештинама дешифровања и разумевања уз основу знања помоћу ког могу да протумаче нове идеје. За писање је важно разумети како се речи комбинују да би се створиле идеје, тврдње и аргументи и како осмислити поруке за информисање, заставу или убеђивање“ (Хобс, 2010, стр. 31). Као друго, у свим моделима се разматра показатељ „размена порука / дељење садржаја“. У том циљу, корисници су научили да су им потребни знање и способност да коментаришу или одговарају на садржаје које су други створили и поделили онлајн (Харгитај, 2007), док у исто време треба да буду способни да са другима деле знање и садржај који су сами стекли или створили, као и да предњаче у ширењу новости, садржаја и извора (Ферари, 2013).

У многим моделима такође се расправља и о способности „онлајн интеракције и сарадње“. Џенкинс тврди да се „култура партиципирања“ појавила као култура усвајања и одговора на експлозију нових технологија медија које омогућавају просечним корисницима да сачувају, забележе, присвоје и поново користе медијски садржај на моћне нове начине“

(Ценкинс, 2006, стр. 8). У складу са тим, уз комуникационе вештине, неопходне за преношење порука и интеракцију са онлајн корисницима, вештине „учествовања у онлајн заједницама и мрежама“ веома су важне. Овај показатељ је споменут у довољном броју модела дигиталне писмености и може се повезати са критичким вештинама и вештинама управљања приватношћу које су разматране у претходном одељку, пошто корисници који учествују у онлајн заједницама такође морају да буду у стању да критички процене информацију коју користе и дистрибуирају.

И „нетикеција“ је разматрана у многим моделима. Нетикеција је корисницима неопходна да би утврдили и поштовали правила прикладне и утиве комуникације са другима користећи рачунарске мреже и интернет. Белшо упућује на ову врсту вештине као „културне“ и описује је као „потребу да се разумеју различити дигитални садржаји које неко може да доживи, различити обрасци и начини обављања нечега, ствари које су прихваћене и подржане, као и оне на које се мрштимо и одбијамо их“ (Белшо, 2011, стр. 207). Сугерисано је и да је нетикеција начин онлајн понашања које мора да се научи кроз праксу, сматрајући да формална упутства нису доступна (Ван Дајк, Ван Дерсен, 2014, стр. 34). У области нових медија, овај појам такође може да се повеже и са концептом „капитала интимности“ који је формулисао Ламбер (Lambert) (2015) у свом истраживању на тему како корисници у Фејсбук објавама преносе своје неизречене, колективне норме које се односе на „јавно изношење интимности“ (Ламбер, 2015, стр. 8).

„Управљање дигиталним идентитетом“ се разматрало у само неколико анализираних модела. Међутим, дигитално окружење пружа корисницима бројне могућности да стварају своје различито „јавно ја“ које могу да користе у различитим просторима и садржајима (Ала-Мутка, 2011, стр. 41). Особе могу да партиципирају у бројним онлајн заједницама користећи различите идентитетете, аватаре или личности у сваком простору (Белшо, 2011). Стога је, у сврху личне заштите, али и ефикасне комуникације са другима, важно да корисници имају свест о информацијама које деле посредством ових ликова и онлајн личности и како се тим информацијама приступа, и како се оне проналазе онлајн. Ускло повезана са способношћу ефикасног и сигурног управљања дигиталним идентитетом је „свест о публици“, показатељ који је такође био присутан само у неколицини модела, а детаљније ћемо га разматрати у следећој категорији показатеља.

ВЕШТИНЕ И КОМПЕТЕНЦИЈЕ СТВАРАЊА ДИГИТАЛНОГ САДРЖАЈА

На основу анализе четврте групе индикатора која садржи вештине стварања дигиталног садржаја (видети Додатак, табела 5), показатељ „стварање и уређивање новог садржаја / грађење новог знања“ је споменут

у великом броју модела. У складу са тим, корисници би требало да могу да стварају ново знање, делове информација, медијске производе или друга дигитална остварења који би требало да утичу на испуњавање задатака или решавање проблема (Мартин и Груђецки, 2006, стр. 257). Способност „стварања креативног израза“ је споменута у многим моделима и чини се да је неопходна за друштвено учешће, лични израз и професионалну активност: „Креативност у руковању дигиталним алатима и медијима може да побољша рад, учење или хобије дајући нови и иновативни смисао за дацима које извршавамо или презентовању резултата. Неопходна је отвореност за учење или стварање, и прилагођавање и обликовање постојећих начина у нове моделе“ (Ала-Мутка, 2011, стр. 52).

Довољан број модела дигиталне писмености се односи на вештину која је корисницима потребна за „интегрисање и поновно слагање постојећих садржаја“, као релевантан елемент у развоју дигиталних компетенција. У том контексту, Ешет-Алкалај говори о „описмењености за репродуковање“ или „уметности креативног рециклирања постојећег материјала“ (Ешет-Алкалај, 2004, стр. 96), што захтева вишедимензионално размишљање склоно синтетизовању које има за циљ исправно, оригинално и креативно комбиновање постојећег материјала. Са праксом интегрисања и поновног слагања постојећег садржаја обично су повезани „свест и управљање правом на интелектуалну својину (IPR)⁶ и дозволом“, показатељ који је такође споменут у довољном броју модела. Савремено дигитално друштво сматра се друштвом у коме се лична комуникација и масовна комуникација слажу (Кастелс (Casells), 2009) и у коме се свест и поштовање права својине високо вреднују. У том циљу, корисници не би требало да буду свесни само правила која се односе на коришћење постојећег дела, већ би требало да буду у стању да разумеју и различите врсте дозвола и да их исправно примењују на сопствене дигиталне производе (Ферари, 2013). Као што је већ речено, показатељ „свест о публици“ је споменут само у неколицини анализираних модела. Истраживање те области такође је показало низ различитих нивоа приватности и публике којих корисници треба да буду свесни током своје онлајн активности. Као прво, постоји „убодицајена“ публика и ту ступају на сцену питања интерперсоналне приватности. Корисницима који не познају отвореност друштвених мрежа прети опасност потцењивања значаја видљивости њихове онлајн активности (Де Волф и Хејман, 2015). Бојд (Boyd) (2010) тврди да постоје 3 појаве које узрокују сајтови за друштвено повезивање (SNSs) и којих корисници треба да буду свесни: урушавање садржаја, невидљива публика и мешање јавне и приватне сфере. Током процеса социјализације људи граде различита окружења, као што су породица, пријатељи и колеге. Међутим, сајтови за друштвено повезивање изискују јасну диференцијацију између

⁶ IPR – Intellectual property rights – Прим. прев.

ова три окружења, стварајући тако потешкоће корисницима да усвоје онлајн понашање које је прикладно за сваки од њих. Истраживање се такође односило на „имагинарну публику“ – менталну концептуализацију људи којима може да се пошаље порука (Лит (Litt) и Харгитај, 2016) и који могу да буду изазвани имајући у виду да „просечни корисник вероватно није ништа учио о публици, па су његове стратегије и свест о томе донекле случајне и спонтане“ (Лит и Харгитај, 2016, стр. 9). Доступност друштвених мрежа ствара невидљиву публику и чини да корисници нису свесни ко све може да има приступ њиховом онлајн представљању док су у стратегијама управљања приватности друштвених мрежа границе између приватне и јавне сфере нејасне (Лампинен, Лехтинен, Лехмускалио (Lehtuskaallio) и Таминен (Tamminen), 2011). Као друго, људи треба да буду свесни ко је њихова публика имајући у виду и треће лице. Информације које они свесно или несвесно објављују онлајн могу да дођу до „тих слушалаца“ преко апликација (Штуцман (Stutzman), Грос (Gross) и Аквисти (Acquisti), 2013; Ванг (Wang), Сју (Xu) и Гросклагс (Grossklags), 2011) или огласа. Истраживање је показало да корисници имају више начина да контролишу проток информација ка другим корисницима, трећим лицима и даваоцима услуга (Хејман, Де Волф и Пирсон, 2014). Треће, научници су разматрали алгоритамску контролу која подрива моћ корисника над сопственим онлајн представама и комуникацији стављајући алгоритам у службу свих аспекта њиховог свакодневног живота (Бир (Beer), 2009). На крају, корисници би такође требало да се баве питањем онлајн надзора, нарочито у светлу недавних открића надзора који врши држава (Гринвалд (Greenwald) и Макаскил (MacAskill), 2013) или манипулисања корисницима у истраживачке сврхе, као у случају „Фејсбук експеримента“ (Чемберс (Chambers), 2014).

СТРАТЕШКЕ ВЕШТИНЕ И КОМПЕТЕНЦИЈЕ

У категорији стратешких вештина (видети Додатак, табела 6) у довољном броју модела се разматрала вештина „коришћења информација за испуњење личних и професионалних задатака“. Ван Дајк и Ван Дерсен (2014) сматрају да су стратешке вештине најнапредније интернет вештине и тврде да њих треба везивати са појмовима оснаживања и доношења одлука. У том смислу, корисници треба да буду у стању да се оријентишу, донесу одлуку и делују на основу примљене онлајн информације да би испунили одређени циљ и евентуално извукли личну или професионалну корист. Стратешке вештине се заснивају на претходно разматраним категоријама вештина и компетенција, али се сматра да треба да буду на вишем нивоу приликом испуњавања образовних, професионалних и личних задатака посредством адекватне употребе дигиталних средстава (Мартин и Груђецки, 2006, стр. 265).

Међутим, у оквиру исте категорије, способност „утврђивања јаза међу дигиталним компетенцијама“ је споменута само у неколицини анализираних модела. Ипак, како се потребе за дигиталном писменошћу мењају у складу са одређеним животним околностима (Мартин и Груђецки, 2006) и увођењем нових технологија и комуникационих алата, развој дигиталних вештина и компетенција је процес који траје током читавог живота за који сваки појединач треба да преузме одговорност (Ала-Мутка, 2011, стр. 42). Корисници морају да буду у стању да утичу на ниво својих компетенција како би одредили правац у ком треба да се развијају са циљем да обаве своје личне и професионалне задатке у данашњем дигиталном добу. У том циљу, DIGCOMP предлаже пројекат детаљне мреже самопроцене као алат помоћу ког корисници објашњавају и разумеју начин подизања своје дигиталне компетенције на виши ниво (Ферари, 2013).

РАЗМАТРАЊЕ

Извођење брзог прегледа стања је потврдило изузетно комплексну природу утврђивања и дефинисања дигиталних вештина, писмености и њима сродних компетенција. Иако је на основу разматраних 13 модела дигиталне писмености успешно установљено 39 показатеља, доказало се да је утврђивање показатеља у оквиру модела тежак задатак, тачније разлог томе је непостојање јасне разлике и преклапања међу концептима. Разматрајући потенцијалну примену ових модела на вредновање, евалуацију и упоређивање нивоа дигиталне писмености, јасна је потреба за интегрисанијим концептуалним приступом или чак свеобухватним јединственим оквиром који би требало да буде општа полазна тачка.

Други велики изазов је конверзија таквог свеобухватног оквира као и великог броја показатеља које би он обухватао у анкетна питања. Питања која се односе на обесмишљавање показатеља, технолошку ограниченост или ограничености личног опредељења за вредновање дигиталних вештина, писмености и њима сродних компетенција обимно су обрађена у литератури (Ван Дерсен, 2010).

Прве кораке у том правцу предузима Институт за перспективне технолошке студије (IPTS)⁷, један од седам обједињених истраживачких центара (ОИЦ) Европске комисије. Такав покушај направљен је детаљнијом елаборацијом DIGCOMP-овог оквира који су развили Ала-Мутка (2011) и Ферари (2013) у „Оквиру дигиталне компетенције за грађане – нова фаза 1: Концептуални референтни модел“ (Vourikari (Vourikari), Пуније (Punie), Каретеро (Carretero) и Ван ден Бранде, 2016).

Брзи преглед стања 13 модела дигиталне писмености довео је до низа интересантних закључака који се односе на дигиталне вештине и компетенције

⁷ IPTS – Institute for Prospective Technological Studies – Прим. прев.

које су представљене у најновијим концептуалним моделима. Важно је рећи да је одређеним вештинама и компетенцијама посвећено више пажње на уштрб других, а неке од њих су само релевантне. Као прво, вештине које се односе на „познавање и коришћење хардвера”, „познавање и коришћење дигиталних алата и софтвера” и „познавање и коришћење интернета” разматране су у скоро свим анализираним моделима дигиталне писмености. Као што је већ речено у претходном одељку, оперативне, техничке и формалне вештине и компетенције уопштено се сматрају основом за употребу дигиталних садржаја, па су тако и у великој мери укључене и разматране у моделима. Информационе и когнитивне вештине и компетенције, као што су способности „тражења”, „идентификације/одабира”, „дисеминације/дељења” и „лоцирања” потребних информација такође су споменуте у већини од 13 модела дигиталне писмености. Способност „анализе и евалуације” садржаја сматрала се релевантном у свим концептуалним моделима и како сви истичу, кључна је за развијање неопходних критичких вештина корисника у доношењу исправних одлука у складу са садржајем са којим се сусрећу онлајн. Интересантно, у већини модела дигиталних вештина укључених у студију расправљало се о вештинама и компетенцијама из категорије дигиталне комуникације, као што су „креирање порука”, „разумевање порука”, „размена порука / дељење садржаја”, „онлајн интеракција и сарадња”, „нетикеција” и „кодирање/декодирање порука”. Способности „стварања и уређивања новог садржаја / грађења новог знања” и „стварања креативног израза” такође су присутне у скоро свим моделима показујући тако да је важна разлика између дигиталне комуникације и стварања дигиталног садржаја. Иако се сматрају помоћним у довољном броју модела, стратешке вештине потпуно су искључене из неколико модела дигиталне писмености. Корисницима су, заправо, потребне вештине из свих горе споменутих категорија да би развили ову посебну категорију компетенција. Међутим, сматрамо да треба поново размислiti о значају способности корисника да „користе информацију за личне и професионалне задатке”, с обзиром на то да је врло значајна за будуће моделе. Друштвени и технолошки развој стварају корисно окружење за наглашену видљивост одређених показатеља, као и за недостатак пажње усмерене ка другима током времена. Тако се интересантни закључци односе на показатеље „управљање дигиталним идентитетом” и „свест о публици”. Иако су споменути у неколицини или у само неколико модела, ови показатељи су вероватно постали много важнији са увођењем и повећањем популарности нових медија. Ова промена тежишта, да су та два показатеља разматрана првенствено у моделима развијеним после 2010. године, може да се прати у нашем обрасцу. Појмови као што су „приватност и заштита личних података” током времена постали су све

присутнији и вероватно боље вредновани у дискусијама о дигиталним вештинама и компетенцијама из разлога сличних онима који су повезани са новим изазовима увођења и коришћења нових медија. У међувремену, чешће помињање вештина стварања и поновног слагања садржаја може се приписати општијој доступности и приступачности алата за стварање дигиталног садржаја и апликација за дељење садржаја.

Конечно, анализа истиче потребу развијања много шире дебате о дигиталним вештинама него што је то микро перспектива. Врло често се модели дигиталне писмености односе на појединачне атрибуте, без узимања у обзир друштвеног контекста. Иако Ценкинсов модел (2006) јасно показује потребу за друштвено заснованом приступу развоја дигиталних вештина, у многим другим оквирима евидентан је недостатак усредсређености на вештине које се више тичу садржаја, као што су „знање о томе где тражити помоћ“ и „подржавање других у развоју дигиталних компетенција“. Међутим, значај и потенцијални утицај механизама подршке су опширно разматрани у радовима Хобса (2010), Ван Дајка (2005), и Ајнонове и Генитсове (Geniets) (2015). Јасно је да ће у будућности бити потребно много више пажње, утицаја и интеграције појмова подршке мрежама и способности дељења знања и ресурса чиме се отварају дебате о дигиталним вештинама на мезо и макро нивоу.

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DEVELOPING DIGITAL SKILLS AND COMPETENCES: A QUICK-SCAN ANALYSIS OF 13 DIGITAL LITERACY MODELS

Abstract

The development of digital literacy has become a key element on the agenda of scholars, practitioners and policymakers worldwide. To this end, actors in the field often make use of conceptual models on digital literacy. As these models inevitably play a role in shaping the public debate on digital literacy, it is important to gain insights into the concepts and ideas they put forward. This article aims to: (1) unravel the complexity and diversity of concepts regarding digital skills, literacies and competences; (2) identify the concepts promoted in 13 selected models on digital literacy; and subsequently (3) analyse the concepts that shape and/or dominate the scholarly and public debate on digital literacy. The results of this article are based on a literature review and quick-scan analysis of 13 digital literacy models that have been published and used by actors in the field between 2004–2014. The frameworks were mapped in a matrix and compared on the basis of 39 indicators, clustered in five categories: operational, technical and formal; information, cognition; digital communication; digital content creation; and strategic. The results of the analysis point towards an unbalanced focus on certain skills and competences, with particular emphasis on a series of operational, information-searching, and communication skills.

Key words: digital literacy, digital skills, digital competences, concepts models.

Табела 1. Образац дигиталних вештина и компетенција

Ван Дерсен, Хелспер и Ајнон 2014	Показатељи	Дигиталне вештине и компетенције	Оперативне, техничке и формалне	Познавање и коришћење хардвера	Познавање и коришћење дигиталних алата и софтвера	Познавање и коришћење интернета	Знajeње о томе где потражити помоћ	Кретање кроз платформе	Руковање дигиталним структурима
Ван Дајк и Ван Дерсен									
УНЕСКО 2013									
Ферари 2013									
Ала- Мутка 2011									
Белшо 2011									
Хобс 2010									
Калвани et al. 2008									
Боден 2008									
Харгитај 2007									
Мартин и Груђецки 2006									
Ценкинс 2006									
Ешет- Алкалај 2004									
Укупно									

Ван Дерсен, Хелспер и Ајнон 2014		x													
Ван Дајк и Ван Дерсен			x			x		x		x		x		x	
УНЕСКО 2013				x			x			x			x		
Ферари 2013		x		x					x		x			x	
Ала- Мутка 2011		x		x			x			x		x		x	
Белшо 2011					x				x		x		x		
Хобс 2010				x			x		x		x		x		
Калвани et al. 2008					x		x		x		x		x		
Боден 2008				x			x		x		x		x		
Харгитај 2007					x		x		x		x		x		
Мартин и Груђецки 2006					x		x		x		x		x		
Џенкинс 2006					x		x		x		x		x		
Ешет- Алкалај 2004		x			x		x		x		x		x		
Укупно	4	x													
Безбедност уређаја															
Приватност/заштита личних података	1 0	x		x			x		x		x		x		
Информационе/когнитивне															
Тражење	11	11	9	5	4	5	8	4	9	12	8	8	7		
Идентификација/одабир	1 2	x	x	x	x	x	x	x	x	x	x	x	x		
Лоцирање	1 1	x	x	x	x	x	x	x	x	x	x	x	x		
Приступ/претраживање/ дељење	9	x	x	x			x		x	x	x	x	x		
Организовање	6	xx								x	x	x	x		
Синтетизовање	5	x	x	x								x	x	x	

Ван Дерсен, Хелспер и Ајнон 2014		x										
Ван Дајк и Ван Дерсен		x										
УНЕСКО 2013		x										
Ферари 2013		x		x								
Ала- Мутка 2011		x		x								
Белшо 2011		x		x								
Хобс 2010								x				
Калвани et al. 2008			x					x				
Боден 2008								x				
Харгитај 2007		x						x				
Мартин и Грујеџки 2006		x						x				
Ценкинс 2006		x						x				
Ешет- Алкалай 2004		x						x				
Укупно	1 1											
Дисеминација/дељење												
Дистрибуирана спознаја	6	x	x									
Симултани рад	1		x									
Вештине решавања дигиталних проблема	8	x	x	x								
Подржавање других у развоју дигиталних компетенција	2											
Анализа и евалуација	1 3	x	x	x	x							
Креирање кроз различите медије	4	x	x					x				
Дигитална комуникација	7	9	4	6	5	6	8	8	9	8	9	7
Кодирање/декодирање порука	1	x	x				x	x	x	x	x	x

Ван Дерсен, Хелспер и Ајнон 2014													
Креирање порука	1 3	x	x	x	x	x	x	x	x	x	x	x	x
Разумевање порука	1 3	x	x	x	x	x	x	x	x	x	x	x	x
Размрна порука / дељење сарадња	1 3	x	x	x	x	x	x	x	x	x	x	x	x
Онлайн интеракција/сарадња	1 2	x	x	x	x	x	x	x	x	x	x	x	x
Учествовање у онлайн заједницама и мрежама	1 0	x	x	x	x	x	x	x	x	x	x	x	x
Ефикасност у комуникацији	6	x	x	x	x	x	x	x	x	x	x	x	x
Управљање дигиталним идентитетом	5	x	x	x	x	x	x	x	x	x	x	x	x
Нетиквица	1 5	x	x	x	x	x	x	(x)	x	x	x	x	x
Стварање дигиталног садржаја	5	5	3	1	1	2	6	4	4	7	3	6	7

Ван Дерсен, Хелспер и Ајнон 2014		
Ван Дајк и Ван Дерсен	x	
УНЕСКО 2013	x	
Ферари 2013	x	x
Ала- Мутка 2011	x	x
Белшо 2011		
Хобс 2010	x	
Калвани et al. 2008	x	
Боден 2008	x	
Харгитај 2007		
Мартин и Груђеџки 2006	x	x
Ценкинс 2006		
Ешет- Алкалај 2004	x	
Укупно	9	3
	Коришћења информација за испуњење личних и професионалних задатака	Утврђивања јаза међу дигиталним компетенцијама

Табела 2. Оперативне, техничке и формалне вештине и компетенције

Ван Дерсен, Хелспер и Ајнон 2014	Показатељи	Дигиталне вештине и компетенције	Оперативне, техничке и формалне	6	6	6	6	6	6
Ван Дајк и Ван Дерсен			Познавање и коришћење хардвера	x	x	x	x	x	x
УНЕСКО 2013			Познавање и коришћење дигиталних алата и софтвера	x	x	x	x	x	x
Ферари 2013			Познавање и коришћење интернета	x	x	x	x	x	x
Ала- Мутка 2011			Знанье о томе где потражити помоћ	4	x		(x)	x	
Белшо 2011			Креирање кроз платформе	3			x	x	
Хобс 2010			Руковање дигиталним структурима	10	x	x	x	x	x
Калвани et al. 2008									
Боден 2008									
Харгитај 2007									
Мартин и Груђецки 2006									
Ценкинс 2006									
Ешет- Алкалај 2004									
Укупно									

Ван Дерсен, Хелспер и Ајнон 2014	x	x
Ван Дајк и Ван Дерсен		x
УНЕСКО 2013		
Ферари 2013	x	x
Ала- Мутка 2011	x	x
Белшо 2011		
Хобс 2010		x
Калвани et al. 2008		x
Боден 2008		x
Харгитај 2007		x
Мартин и Груђеци 2006		
Џенкинс 2006		x
Ешет- Алкалай 2004	x	x
Укупно	4	10
	Безбедност уређаја	Приватност/заштита личних података

Табела 3. Информационе и когнитивне вештине и компетенције

Ван Дерсен, Хелспер и Ајнон 2014	Показатељи	Дигиталне вештине и компетенције	Информационе/когнитивне	11	11	9	5	4	5	8	4	9	12	8	8	7
Ван Дајк и Ван Дерсен			Тражење	x	x	x	x	x	x	x	x	x	x	x	x	x
УНЕСКО 2013			Идентификација/одабир	x	x	x	x	x	x	x	x	x	x	x	x	x
Ферари 2013			Лоцирање	x	x	x	x	x	x	x	x	x	x	x	x	x
Ала- Мутка 2011			Приступ/претраживање/ действје	x	x	x	x	x	x	x	x	x	x	x	x	x
Белшо 2011			Организовање	x	x	x	x	x	x	x	x	x	x	x	x	x
Хобс 2010			Синтезирање	x	x	x	x	x	x	x	x	x	x	x	x	x
Калвани et al. 2008																
Боден 2008																
Харгитај 2007																
Мартин и Груђеџки 2006																
Џенкинс 2006																
Ешет- Алкалай 2004																
Укупно																

Ван Дерсен, Хелспер и Ајнон 2014		x						
Ван Дајк и Ван Дерсен		x				x		
УНЕСКО 2013		x				x	x	
Ферари 2013		x	x	x	x		x	
Ала- Мутка 2011		x	x	x	x	x		
Белшо 2011		x	x	x	x	x	x	
Хобс 2010		x				x		
Калвани et al. 2008			x					
Боден 2008								
Харгитај 2007		x						
Мартин и Груђецки 2006		x	x					
Џенкинс 2006		x						
Ешет- Алкалай 2004		x						
Укупно	11							
	Дисеминација/дељење							
	Дистрибуирана спознаја							
	Симултани рад	1						
	Вештине решавања дигиталних проблема	8	x	x	x	x	x	
	Подржавање других у развоју дигиталних компетенција	2				x	x	
	Анализа и евалуација	13	x	x	x	x	x	x
	Креирање кроз различите медије	4	x	x			x	

Табела 4. Вештине и компетенције дигиталне комуникације

Показатељ	Дигиталне вештине и компетенције	Дигитална комуникација	Кодирање/ декодирање порука	Креирање порука	Разумевање порука	Размена порука / дешавање садржаја	Онлайн интеракција/ сарадња	Учествовање у онлајн заједницама и мрежама
Ван Дерсен, Хелспер и Ајнон 2014						7		
Ван Дајк и Ван Дерсен						9	x	x
УНЕСКО 2013						8	x	x
Ферари 2013						8	x	x
Ала- Мутка 2011						8	x	x
Белшо 2011						8	x	x
Хобс 2010						8	x	x
Калвани et al. 2008						6	x	x
Боден 2008						5	x	x
Харгитај 2007						6	x	x
Мартин и Груђецки 2006						7	x	x
Ценкинс 2006						9	x	x
Ешет- Алкалај 2004						11	x	x
Укупно						13	x	x
						13	x	x
						13	x	x
						12	x	x
						10	x	x

Ван Дерсен, Хелспер и Ајнон 2014			x
Ван Дајк и Ван Дерсен	x	x	x
УНЕСКО 2013	x		x
Ферари 2013	x	x	x
Ала- Мутка 2011	x		x
Белшо 2011	x		x
Хобс 2010	x		(x)
Калвани et al. 2008			x
Боден 2008			x
Харгитај 2007	x		x
Мартин и Груђецки 2006			
Ценкинс 2006	x	x	x
Ешет- Алкалай 2004			x
Укупно	6	5	12
	Ефикасност у комуникацији	Управљање дигиталним идентитетом	Нетикација

Табела 5. Вештине и компетенције стварања дигиталног садржаја

Показатељ	Дигиталне вештине и компетенције	Стварање дигиталног садржаја	Стварање и уређивање новог садржаја / грађење новог знања	Интегрисање и поновно слагање постојећих садржаја	Стварање креативног израза	Свест о намени	Свест о публици	Свест о техникама слагања
Ван Дерсен, Хелспер и Ајнен 2014						7	6	7
Ван Дајк и Ван Дерсен						x	x	x
УНЕСКО 2013						x	x	x
Ферари 2013						x	x	x
Ала-Мутка 2011						x	x	x
Белшо 2011						x	x	x
Хобс 2010						x	x	x
Калвани et al. 2008						x	x	x
Боден 2008						x	x	x
Харгитај 2007						x	x	x
Мартин и Грујецки 2006						x	x	x
Џенкинс 2006						x	x	x
Ешет-Алкалај 2004						x	x	x
Укупно			5	3	1	2	6	4

Ван Дерсен, Хелспер и Ајнон 2014	x
Ван Дајк и Ван Дерсен	
УНЕСКО 2013	x
Ферари 2013	x
Ала- Мутка 2011	x
Белшо 2011	x
Хобс 2010	x
Калвани et al. 2008	
Боден 2008	
Харгитај 2007	
Мартин и Груђецови 2006	
Џенкинс 2006	x
Ешет- Алкалај 2004	x
Укупно	8
Свест управљање IPR-ом и дозволом	

Табела 6. Стратешке дигиталне вештине и компетенције

Показатељи	Дигиталне вештине и компетенције	Стратешки показатељи	Коришћења информација за испуњење личних и професионалних задатака	Утврђивања јазза међу дигиталним компетенцијама
Ван Дерсен, Хелспер и Ајнон 2014				0
Ван Дајк и Ван Дерсен			x	1
УНЕСКО 2013			x	1
Ферари 2013			x	2
Ала-Мутка 2011			x	2
Белшо 2011			x	2
Хобс 2010			x	2
Калвани et al. 2008			x	2
Боден 2008			x	1
Харгитај 2007			x	1
Мартин и Груђецки 2006			x	1
Џенкинс 2006			x	1
Ешет-Алкалай 2004			x	1
Укупно			x	3

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REIMAGINING SUSTAINABILITY: COMMUNICATION AND MEDIA
RESEARCH IN A CHANGING WORLD

**Digital (dis)empowerment in the digital world:
an empirical perspective from a life course
perspective**

Axelle Asmar
Ilse Marën
Imec-Smit-Vub

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INTRODUCTION

The increasing digitization of public as well as private services is progressively posing a threat for individuals and communities that do not possess the necessary tools to handle the new digital ecosystem. As shown by recent studies (Van Dijk 2005; Helsper 2008; Mariën et al., 2013), the traditional discourse that very often correlated digital exclusion with social exclusion and deprivation is no longer valid. Indeed, there is no longer a clear-cut view on the groups at risk of being or becoming digitally excluded.

As such, distancing from the traditional dichotomy – included versus excluded populations groups, this paper argues that recognizing how social and digital inequalities operate require to take into account that digital inequalities are more than a mere issues of access: digital and social exclusion are multidimensional social processes reflecting broader types of inequalities.

Thus this leads us to two broad questions: first, with the increasing digitization of services, both public and private, what new skills and literacies will be needed in order to sustain an autonomous and empowered use of these services? Second, what range of motion will be left for those already excluded at the social and economic level?

To answer these questions, this paper builds on empirical materials to consider experiences with digital tools and series from a life course perspective. Based upon 90 in-depth interviews with respondents equally distributed across three specific life stage - 18-30; 31-50; 51-70 – this article aims at identifying the crucial aspects that define an autonomous use of digital media. The strength of this approach is that it allows to move beyond the emphasis on quantitative data to show from a qualitative analysis that (1) digital inequalities are highly related to life stages, and (2) various aspects define the daily needs and wants within a specific life stage.

1. THE DIGITAL DIVIDE DEBATE

1.1. SETTING THE SCENE OF THE DIGITAL DIVIDE

Since it became clear that information and communication technologies (ICT), and particularly the Internet, will play an increasingly significant role in all aspects of life, general concerns about inequalities related to ICT diffusion and adoption have grown in theoretical and political circles. Indeed, with the increasing democratization of internet, policies and academic debates have been built around the idea that development of digital technologies would lead to an information revolution that would change the way people live and interact with each other. The digital divide, defined as '*the gap that separates segments of society as well as whole nations into those who are able to take advantage of new ICT opportunities and those who are not*' (OECD 2000:3), is based on the deterministic assumption that mere access will automatically lead to a full of ICT, regardless of the various social and cultural contexts in which are embedded. Put differently, the notion tends to imply a singular demarcation between the digitally engaged and the digitally disengaged. With this definition in mind, numerous policies and

academic researches have focused on disparities in physical and material access with the idea that socio-economic status was the sole predictor of internet use.

As more people gained access to digital technologies, observers started noticing that certain kinds of people (whites, males, wealthy....) were more likely to use the internet than others. The strong differences *among* people with formal access to the internet encouraged researchers and policy makers to shift the debate towards understanding the patterns of inequalities brought to light and exacerbated by digital technologies. Indeed, the significant in the forms of information and the ways it was accessed by people showed the oversimplifying nature of the concept that too easily forecloses discussion about what is at stake for the unwired side of the divide (Ginsburg 2005).

1.2. THE CURRENT RESEARCH

This article thus inscribes itself in the continuity of researches on digital inequalities. Indeed, recent studies show that socio-economic background is no longer the sole predictor of digital exclusion (Mariën et al., 2013; Van Deursen& Van Dijk 2013...); as a result, groups at risk of being digitally excluded become even more difficult to identify. However, despite several exercises aimed at developing more comprehensive typologies (Rogers 2003; Rogers 2003; Livingstone & Helsper 2007), limitations in digital inequalities research - such as the lack of theoretical framework, the overemphasis of problems that are social by nature (Mariën& Prodnik 2014) – have soften the input if these valuable contributions. In this regard, individual characteristics have often bee taken as the start and end point of the analysis in trying to understand the processes that drive the adoption of digital media in the everyday life. Yet, this approach is often set out whitout clear theorization of how individuals influence each other or how social group practices affect the digital engagement of individuals.

As such, this article furthers the debate by exploring the ambiguities and contradictions as well as the relationships wrought, shaped, altered and challenged by and through digital media. Most if the digital divide research has been focused on the *who* – who has access and who doesn't – when we should be paying attention to the *how* – how are individuals making sense of digital technologies in their daily lives?

2. METHODOLOGY

Since it is essential to study digital inequalities and digital inclusion from a broader contextual perspective, a life course approach allows to look at people's life progress and the consequences of digital differentiation according to the evolution of *both* circumstantial and structural aspects that define people's various needs, wants and constraints.

The life course perspective refers to a sequence of activities or events embedded in individual lives and aims at mapping, explaining and describing change in social positions over time (Elder 1994; Meyer 2009;). Hence, the aim of such an approach is to uncover specific moments or turning points in life that triggered or halted the use of digital media

to see if live events have had or still are still an influence on the current use of digital media. In this way, tackling the issue of digital exclusion and inclusion from a life course perspective is an innovative theoretical and empirical research insofar as it enables an in-depth and dynamic understanding of the meaning of individual's uses and their societal outcomes according to their particular life events and social roles across life.

In this framework, this article is built upon interviews amongst 90 respondents equally distributed across the three following life stages:

- The first life stage (18-30) which is the period in which young people are building autonomy in all domains of the social life (employment, relationships...) and steadily increasing their social, economic and political participation in society.
- The second life stage (31-50) is a period in which individuals are assumed to have developed autonomy and participate fully in society; however, the challenge at this stage is to maintain this autonomy and full participation while at the same time managing work, family and life hazards.
- The third life stage (51-70) can be characterized by the desire to remain active participants of society and to remain independent while ageing is considered an increasingly important policy challenge

Hence, the life course perspective is valuable insofar as it (1)- recognizes that different period of life influence status social identity, roles and rights in society; (2)- emphasizes the fact the developmental changes are continuous processes experienced through life and not just through particular episodes of narrow life phases.

3. RESULTS

Throughout this study we have aimed at looking at the manners in which digital media shape social practices as well as paying attention to the ways in which interpersonal medium of communication have come to increasingly play a role in facilitating the logistics of the everyday life (Haddon 2000).

It thus emerges from our research that there is no longer a single aspect of the everyday life in which digital media are not involved. Indeed, from managing a business to planning family holidays, it appears that digital media have become an integral part of the conduct of the everyday life. Following this observation, our research uncovered three main categories that illustrate where, how and why digital media have become so integrated into the fabric of daily life.

3.1. GEOMETRIES OF THE INTIMATE

Looking closely at the family levels and at the interactions and digital uses of the familial environment, our findings suggest that digital technologies play a major role in the household, on the one hand by creating new forms of intimacies within the household.

Indeed, as digital media steadily fill in every domains of life, it appears that digital applications (emails, instant messaging apps...) and especially social networking platforms (Facebook, WhatsApp....) are gradually becoming the mainstays of most social interactions within the family (Lomanowska 2016). In fact, regardless of age, and/ or educational and social background, almost all the respondents across the three life stages possess or are involved in group chats (on WhatsApp and Messenger generally) dedicated to intense communication with the family. These groups chat thus reconfigure the way people relate to each other by expending the opportunity for daily meaningful contacts, especially between family members locked in different space-time routines, whether because of work, school or business trips. It is what Jamieson (2013) concurs when looking at intimacy and personal relationships in the digital age: *"for both those living together but spending more time apart (living together apart) and families and relationships that think of themselves as a unit despite separation over distance (living apart together), such technologies assist intimacy by providing new ways of doing 'older things'* (2013:9).

One of the ways in which these new forms of intimacies are wrought within the household is through the organization of daily, seemingly mundane life activities:

I communicate a lot with my sister via Facebook Messenger or via SMS or WhatsApp and we have something like that because we also go babysitting once at my mother's niece and that just such an easy way to communication, if something is happening with the kids, or if something needs to be done once we arrive there... So yes, WhatsApp is important. (Female, 1st life category)

In this sense, digital media do not replace existing means of communication, nor do they render social contact obsolete; rather, they add a new layer of intimacy to existing relations and networks. This point is thus important to understand the notion of (dis)empowerment in the context of increasing digitization. Being able to keep in touch with one's network means being able to reach out for help when needed; it helps people cultivate and garner resources through their social networks.

On the other hand, these new cartographies of the intimate were experienced by some participants as alienating, especially when related to social media. In fact, some of our respondents, the increasing reliance on social media within the confine of the household was felt as particularly disheartening:

The peaceful idea of the family does not exist anymore.... How would I say that?... It's just that, if... when I am at home for example my wife is on Twitter or Facebook and my children there are connected continually with god knows who and if you are the only one that consciously tries to keep away from all that, then sometimes you may feel like quite a lonely soul. (Male, 2nd life category)

In this light, new forms of intimacy mediated by digital technologies might actually challenge social interactions and communication within the household and change the quality of family relations.

3.2. REACHING OUT FOR HELP: THE IMPORTANCE OF SOCIAL SUPPORT

Our focus in the household and the changing practices within the family unity led us to look beyond the micro-level to direct our attention on how larger networks of contacts – whether remote or face to face – influence digital engagement and the formation of digital

autonomy. Indeed, with the increasing digitization of service, having access to a social support is more and more important (DiMaggio&Hargittai 2010).

It appears from our research that most of the time, family and friend's networks greatly influenced how our participants adopted digital media, whether by increasing our participants' motivations to use digital technologies or by helping them develop their digital skills. For one of our participants, downloading applications was a complete mystery before she learned, by watching a close friend play a game on her smartphone, that not only these apps were free but that she could download them as much as she wanted. For another of our participants, the support of her daughters has been crucial in the development of her digital skills and the formation of her digitally autonomy, especially regarding services such as Instagram or Facebook.

Henceforth, the amount of social support to which a user has access is thus proving to be instrumental in the uptake and further usage of digital tools. Indeed, in many cases, the social environment provides a form of vicarious experience (Bandura 1977) whereby participants, seeing their close relatives engaging in digital activities, can be motivated into investing efforts in learning and using digital technologies:

At some point, my interest in trying and experimenting Photoshop came from a friend. I never followed any particular class, just trials and errors. (Male, 1st life category)

However, our findings also suggest the presence of strong social support can, in some cases, hinder digital engagement. It is often the case in couples where one spouse is more digitally skilled than his/her partner and takes up all the tasks necessitating the use of digital media, from online banking to printing a travel itinerary.

(talking about digital media) It is a bit regrettable that my wife is much better at that than myself. She also came into contact with it very quickly so she has been ahead of me for quite some years now, and she is just better at it anyway(..) It has advantages but it has its drawbacks (laughter). If, so to speak she decides that she will take care of something tomorrow, then I am almost... I am helpless in many cases. (Male, 2nd life category)

In this way, our findings confirm the research conducted by Eynon and Geniets (2015) who found that "*in some cases (...) peers seem to actually stymie the skill development of our participants by doing tasks on their behalf*"

3.3. SOMETIMES LIFE GETS IN THE WAY...: TURNING POINTS IN DIGITAL ENGAGEMENT

This last part puts an emphasis on the contexts in which digital media are used and their implementation according to circumstances and life events. Indeed our research shows that events such as the birth of a child, retirement, starting higher education or a new job, can enhance or constrain digital engagement in very different ways for very different people. It thus emerges from our findings that nearly all the transformations in digital practices and engagement were triggered by life events.

I am in my forties and I have had two small children quite late so my world now is getting up in the morning, school, football, music school, going to work, coming back home, sprinting, driving around...Then there is not much time left at 11 o'clock to think about anything else expect putting yourself in a comfortable sofa.so that is just a very busy phase

in a mother's life where there is actually little room to actively engage or follow-up all with digital technologies. (Female, 3rd life category)

Now that I am retired I have ore time than before which means more time to go and look for things online. I know more about the world than five years ago, because I am going to look a lot more things up online. In the time, when I was working, I had much less time for such things and less energy, when you come back in the evening usually you have no more energy for anything else. (Male, 3rd life category)

Henceforth, what is important to note is that our findings show that digital engagement cannot be simplistically defined in terms of use and non-use. It is rather more accurate to say that people engage and adopt digital media in a series of 'stop-pause-repeat process', often dictated by life events such as the birth of a child or the death of a spouse. As such, the meaning that people attribute to digital medias as well as their use thereof shift over time.

4. DISCUSSION: RETHINKING ACCESS FROM PLATFORMS TO SERVICES

The basic assumption of most research on the digital divide is that once people get access to the internet, they will instantly begin to use and consequently catch up with the rest of connected side of the population. As such, it reflects one of the shortcomings of the digital divide research which is failing to see access through a spectrum approach ranging from the ability to benefit from this access to the inability to seize the opportunities provided online.

Hence, the increasing digitization of services forces to rethink access in social as well as technological terms: the question is no longer who has a network connection at home, but rather what benefits are people able draw offline from their digital engagements? It is thus our perception that rethinking access opens up a broader understanding of the term 'access' no longer in reference primarily to infrastructures and systems, but to services. Indeed, our findings suggest that for most of our participants, access to digital technologies ceases to be solely about the platform and but concerns the services they wish to have access to achieve specific purposes. Put differently, rethinking access from platforms to digital services does not mean that traditional equipment such as the computer or the smartphone are now on the verge of becoming obsolete; rather, we argue that they are secondary to our participants' priorities. Therefore, this article contributes to the research on digital inequalities by highlighting the fact that having access to digital technologies is no longer matter of being connected; instead it implies the ability for each individual to achieve their specific communicative purposes.

As access shifts from platforms to services, our study comes with a cautionary tale as our findings suggest the deepening digital precarity of individuals unable or unwilling to keep up with the digital. Such citizens are becoming steadily penalized by not being able to share and receive information necessary for their inclusion and participation in society. As predicted by Van Dijk (1999:236), "*advancements in technology create situations in which those who are limited to a very basic set of skills now will be outpaced by those who are ahead in their ability to select and process information*".

This risk of exclusion is not merely limited to exclusion from specific benefits provided by digital media – such as access to e-commerce or e-governments- but this growing risk

of exclusion is disquieting because it also insinuates being left out from societal and social systems that are increasingly reliant on digital technologies (Mason&Hacker 2003).

CONCLUSION

It is by now undeniable the production and use of digital media have become integrated into every spheres of the everyday life. Far from being a revolution, they constitute an evolution of older modes of communication and interaction, facilitating social reproduction, cultivation social interactions and establishing collective interests. However, despite such achievements the digital age still betrays a structural myopia built on the deepening of exclusion for certain groups in society; the concern here is that "*terms like the digital divide too easily foreclose discussion about what is at stake for those who are out of power* (Ginsburg 2008:9)

This empirical contribution has made clear that crucial issues of digital inclusion are not just technological – that is to say that they should not be viewed solely from the lens of physical access to digital media – but have to apprehended at the social and cultural level. Indeed, the issue of inclusion and exclusion is social insofar as it entails the diversity of formal and informal support networks that have a great influenced on the adoption or rejection of digital media; studying issues of digital in/exclusion also means looking at cultural components such as the values and expectations that enhance or constraint access and use of digital technologies.

It is our belief that digital divide research as well as digital inclusion policies do not pay enough attention to soft skills and de social environment of users as having a tremendous impact on the development of digital autonomy and empowerment. As perfectly captured by one of our participants: "*I often wonder, with all this digital, how are things going to evolve? It is becoming an essential thing in society, a right almost as important as electricity or heating. It is no longer enough to have a connection but you need to have minimal skills to be able to take part in all of it*"; yet, what happens then to our society when access and minimal skills are no longer enough?

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Empowerment en régime numérique

**Une numérisation des services d'intérêt général qui
peine à inclure et à émanciper tous les usagers**

Périne Brotcorne, Carole Bonnetier et Patricia Vendramin



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Une numérisation des services d'intérêt général qui peine à inclure et à émanciper tous les usagers

Périne Brotcorne, Carole Bonnetier et Patricia Vendramin

Introduction

- ¹ À l'heure où les technologies numériques s'invitent dans tous les domaines de la vie quotidienne, la numérisation des services privés et d'intérêt général est présentée comme une évolution à la fois inéluctable et porteuse de progrès collectifs. Les discours d'accompagnement de la transition numérique insistent sur le potentiel émancipateur des usages numériques, censés renforcer l'autonomie des usagers/citoyens, notamment dans le cadre de leurs rapports avec les services d'esprit public (Thévenot, 2001). Les arguments en faveur de leur numérisation massive sont bien connus ; ils portent sur la simplification et la personnalisation des démarches ainsi que sur la participation accrue des usagers à la cocréation des offres de services numériques.
- ² Les recherches sur les usages des technologies numériques adoptent une posture plus critique par rapport aux potentialités des dispositifs numériques à améliorer le pouvoir d'agir des usagers/citoyens (Dolbeau-Bandin, Proulx et Rivron, 2016 ; Granjon et Denouël, 2011). Des études récentes pointent en particulier le fait que la numérisation accrue des services – notamment d'intérêt général – sous-tend une double exigence souvent étudiée : celle d'être équipé et d'avoir les compétences numériques pour en tirer parti (Pinède, 2018). Cet état de fait génère des inégalités entre les individus capables de répondre à ces exigences et les autres (Brotcorne, 2018 ; Mazet, 2019).
- ³ Dans l'ensemble, les recherches sur les inégalités numériques ont porté leur attention sur les usages et les usagers des technologies numériques, en particulier de l'informatique connectée. En revanche, peu de travaux ont appréhendé ce phénomène par le prisme des fournisseurs de services en questionnant l'influence des pratiques de conception numérique sur le façonnage de dispositifs plus ou moins inclusifs¹. Or, le

maintien d'un accès équitable aux offres de services constitue un enjeu majeur dans un contexte de dépendance accrue au numérique (Beauchamps, 2012) où la connectivité devient une condition sine qua non d'accès à un ensemble toujours plus large de démarches quotidiennes. Cette question se pose avec d'autant plus d'acuité pour les organismes animés d'un esprit public qui fondent la justification de leur existence sur des principes d'égalité et de continuité. Aussi, est-il particulièrement pertinent de questionner la façon dont ces organismes articulent la numérisation de leurs services avec le respect de leurs missions singulières.

- 4 Cet article² a pour objectif d'examiner le processus de « mise en technologie » (Badouard, 2014) de choix institutionnels relatifs à la numérisation d'offres de services au sein de deux organismes d'intérêt général en Belgique, actifs respectivement dans les secteurs des transports publics et de la santé. En prenant appui sur des études de cas, il se focalise sur un aspect particulier du travail de conception dont le rôle est majeur dans le cadre d'un programme visant la numérisation de services orientés vers le bien commun – celui qui a trait aux modalités d'implication du « point de vue usager » au cours du développement des services étudiés.
- 5 Pour ce faire, l'article est structuré en quatre parties. Après un bref cadrage théorique, il présente les deux cas étudiés ainsi que la démarche méthodologique adoptée. Les résultats des deux études de cas sont ensuite présentés ; ils révèlent que le manque de considération des biais inhérents aux modalités d'implication des usagers, couplé à une volonté de personnalisation accrue des services qui s'appuie sur le modèle du monde marchand, mènent à des phénomènes d'exclusion et de disempowerment (Bacqué et Biewener, 2013). La conclusion dégage en filigrane quelques conditions qui contribueraient au déploiement de dispositifs de prise en compte des usagers plus inclusifs et capacitants.

Une approche inspirée du façonnage social de la technologie

- 6 Cet article s'appuie sur les travaux issus des Sciences et Technology Studies (STS), notamment ceux menés au Centre de Sociologie de l'Innovation (Akrich, Callon et Latour, 2006). Au-delà de la diversité des approches, ces travaux s'accordent pour reconnaître la nécessité de dépasser les déterminismes, qu'ils soient technologiques ou sociaux, et de rendre compte de l'imbrication étroite du social et de la technique (Valenduc, 2005). « Les technologies ne déterminent pas le social, mais elles ne sont pour autant pas neutres [...] elles incorporent, dans leur conception même, dans leur programmation des dimensions sociales » (Martin et Dagirat, 2016, p. 13). C'est en ce sens que Pierre Moeglin (1993) considère que les technologies sont un vecteur de pouvoir dont les traits sont d'autant plus importants à mettre à jour qu'ils deviennent invisibles une fois enfermés dans des « scripts d'usage » (Akrich, 1991), produisant ce que Beck appelle une forme de subpolitique (Beck, 1992, cité dans Bouillier, 2016, p.20).
- 7 Le questionnement portant sur l'implication des usagers dans le processus d'innovation n'est pas neuf. Des travaux déjà anciens (Akrich, Boullier, Le Goaziou et Legrand, 1990 ; Boullier, 2002 ; Flachy, 2001) ont montré que la figure de l'usager était représentée très tôt dans le travail de conception. Par ailleurs, depuis les années 1980, de nombreux travaux en marketing ou en ergonomie ont permis d'étudier, dans le cadre des usability studies et des Supported Cooperative Work computer (CSCW), la question des méthodes

pour intégrer le point de vue de l'usager dans le travail de conception. Pour autant, ces travaux microsociologiques ont peu porté leur attention sur la portée inclusive et capacitive de ces méthodologies « centrées usager ».

- 8 Plus que de rendre compte des techniques d'implication des usagers, il s'agit dès lors de saisir dans quelle mesure et, sous quelles modalités, les dispositifs de captation du « point de vue usager » contribuent à configurer des services numériques dans une perspective plus ou moins grande d'inclusion sociale et d'empowerment des usagers. Le concept d'empowerment – traduit souvent en français par le terme « pouvoir d'agir » – se définit comme un processus par lequel un individu ou un collectif acquiert les moyens d'augmenter son pouvoir d'action pour agir sur ses conditions socioéconomiques ou politiques (Bacqué et Biewener, 2013). Il fait écho au concept de « capacitation » (Sen, 2000). Celui-ci désigne le processus par lequel une personne acquiert les ressources (individuelles, sociales, institutionnelles) susceptibles d'accroître sa liberté réelle de choisir et de mener à bien les projets auxquels elle accorde de la valeur.
- 9 L'hypothèse sous-jacente est que les modalités d'implication des usagers dans le travail de conception, par le biais notamment des représentations des publics qu'elles incarnent, ont une valeur performative : elles déterminent des formats d'accès, de contenu et d'utilisation des services en ligne privilégiés par certains usagers au détriment d'autres. Ces biais contribuent à générer la marginalisation voire l'exclusion des publics « empêchés ». C'est en somme bien à l'analyse de l'(in)capacitation produite par les pratiques de conception numérique, et en particulier par celles qui visent pourtant à prendre en compte les attentes des usagers, que la suite de cet article est consacrée.

UNE APPROCHE PAR ÉTUDE DE CAS AU SEIN D'ORGANISMES D'INTÉRÊT GÉNÉRAL

- 10 La notion de service d'intérêt public ou général se caractérise par son aspect multidimensionnel. Elle peut revêtir des différences de forme et de contenu à travers les pays européens selon leur modèle étatique³. Au-delà de ces variations, retenons ici une conception large et fonctionnelle des services publics. Celle-ci recouvre un large éventail d'activités de nature différente (transports collectifs, soins de santé, services administratifs, etc.) et aux formes organisationnelles diverses (institutions publiques, associations, mutualités, etc.), mais dont le socle commun est de poursuivre une mission d'intérêt général en vue de répondre à des besoins collectifs évoluant dans le temps et dans l'espace (Caponetti et Sak, 2016). Ce socle commun leur impose de respecter des principes identiques au premier rang desquels figurent les principes d'égalité de traitement des usagers et de continuité du service public.
- 11 Le terrain de cette recherche s'appuie sur des études de cas menées de janvier 2018 à juin 2018 dans deux organismes d'intérêt général en Belgique francophone (voir encadré)⁴.

Présentation des cas étudiés et de leurs services numériques

La première étude de cas a été réalisée au sein d'une société régionale de transports publics. Cette institution est un organisme d'intérêt public, c'est-à-dire une entité de droit public indépendante des administrations – chargée par un gouvernement régional en Belgique d'organiser l'exploitation des transports en commun sur son territoire. La société exploite un vaste réseau de lignes de métro, de tram et de bus ; elle a réalisé 417,5 millions de voyages en 2018. Elle est l'employeur le plus important de la région et compte plus de 9000 salariés fin 2018. Le déploiement d'une offre de services numériques de qualité s'inscrit dans des enjeux plus globaux liés à l'évolution de la mobilité, et en particulier du transport en milieu urbain, suite à la pénétration accrue des technologies numériques dans ce domaine (régulation du trafic, expérience de mobilité grâce au développement de nouveaux types de services, etc.).

L'analyse des modalités d'implication des usagers dans le travail de conception a en particulier porté sur deux services en ligne : la nouvelle version du site Web et l'application mobile en cours de développement au moment de l'enquête.

En 2017, le site Web a été reconfiguré en responsive design, c'est-à-dire accessible sur tous les supports (PC, smartphone, tablette). Outre des informations sur l'organisme et l'actualité de la mobilité en région, le site propose un module de recherche d'itinéraires sur la page d'accueil, des informations sur les perturbations du réseau, un accès aux commandes et renouvellement de titres de transport. Il offre la possibilité de s'abonner à la lettre électronique, à la page Facebook ainsi qu'aux comptes Twitter et Instagram de la société. Un chatbot a aussi été mis à disposition des voyageurs pour offrir une réponse personnalisée 24h/24 à leurs questions relatives aux itinéraires. Celui-ci se base sur les données des horaires en temps réel et sur celles de géolocalisation des utilisateurs. Le site propose un plan du réseau dynamique enrichi d'une option « personnes à mobilité réduite », permettant de visualiser les lignes et les arrêts leur étant accessibles.

L'application mobile, lancée fin 2018, propose une recherche d'itinéraire. Celui-ci inclut le temps de marche et l'offre des autres opérateurs de transport public de la région. La fonction de géolocalisation permet une planification du voyage et guide l'usager étape par étape. Les horaires des transports sont affichés en temps réel. Moyennant la création d'un compte client, l'appli offre la possibilité d'enregistrer des itinéraires favoris et d'obtenir des informations personnalisées en fonction des habitudes d'utilisation. Des notifications peuvent également être activées pour avertir l'usager de son arrivée ou lorsqu'il doit partir.

La deuxième étude de cas s'est déroulée au sein d'une mutualité. Celle-ci est un organisme d'assurance sociale en matière de santé (maladie, accident, prévention) et un mouvement social. Comme les autres mutualités en Belgique, elle est un opérateur privé sous direction publique. Sa mission principale porte sur la gestion de l'assurance maladie obligatoire ; elle contribue en ce sens à la définition de la politique en matière de santé. Son rôle est de veiller à offrir des soins de qualité accessibles à l'ensemble de la population. Une seconde mission d'intérêt général porte sur l'offre d'une assurance complémentaire. Dans ce cadre, elle a un rôle de

« coaching santé » auprès de ses affiliés. Le déploiement des services numériques analysés s'inscrit dans une volonté de soutenir le développement de la littératie en santé des membres afin qu'ils puissent s'informer de façon éclairée à cet égard. Cette mutualité est la plus importante de Belgique avec plus de 4,5 millions d'affiliés en 2018.

L'analyse a en particulier porté sur deux services en ligne : la nouvelle version du site Web de l'organisme et le site web de son journal destiné aux affiliés, dont une nouvelle version est en cours de développement au moment de l'enquête.

Récemment, le site Web francophone a été reconfiguré afin de basculer d'une logique centrée fournisseur de services à une logique centrée usagers. Il est conçu en responsive design, donc accessible sur tous les supports (PC, smartphone, tablette). Outre des informations sur l'organisme et ses champs d'action, il offre des informations concernant les nombreux services aux membres ainsi que les actualités liées à la santé et au social. Moyennant la création d'un compte utilisateur, le site donne accès à un espace personnalisé au sein duquel est regroupé un ensemble d'informations et d'applications concernant l'usager : aperçu de ses remboursements, commande de documents, recherches et comparaisons d'informations sur les tarifs des hôpitaux, etc. La page d'accueil propose aussi une section contact où un mode d'interaction multicanal est privilégié : numéro de téléphone, formulaire écrit électronique, point de contact physique proche ainsi qu'un chat qui n'est pas un bot. Le site donne l'opportunité de s'abonner à la lettre électronique, à la page Facebook ainsi qu'aux comptes Twitter et LinkedIn de l'organisme. Il est à noter que le site est conforme aux normes d'accessibilité du référentiel WCAG 2.0 ; toutes les pages sont munies d'un synthétiseur vocal capable de rendre audible le contenu.

Le site Web du journal bimensuel de l'organisme vise, comme son corollaire papier, à faire le lien entre la mutualité et ses membres. Le site offre une navigation accessible à tous et sur tous les supports. Il donne accès à de nombreuses informations sur des questions de société. Il suggère aux usagers du contenu en fonction de leurs centres d'intérêt, en proposant des articles similaires aux thématiques consultées lors de leur navigation. Les membres ont le choix d'opter pour une version numérique ou pour le maintien du canal papier.

¹² Au-delà de raisons pragmatiques d'opportunité d'investigation empirique, la sélection des cas se justifie par le fait que ces organismes sont des institutions majeures de deux des neufs secteurs d'activités retenus dans la typologie des services d'intérêt public dans l'Union européenne : (1) les services de communication, dont les transports publics, (2) l'action sociale, dont les mutualités (Caponneti, Demertzis et Sak, 2016).

¹³ Le cadre méthodologique de cette recherche repose sur une étude de cas multiple (Yin, 2003). Pour chaque cas, nous avons récolté deux types de données :

- Des sources documentaires. Les « traces objectivées » ont trait à la fois aux règlementations externes qui régissent l'activité des organismes (contrat de gestion, rapports d'activités) et à ceux produits par les organismes eux-mêmes au sein des divers départements (documents relatifs à la présentation de l'entreprise, à sa philosophie, à son offre de services, documents liés à la stratégie marketing pour les services en ligne, etc.).

- Des entretiens individuels semi-directifs auprès de diverses catégories de professionnels de l'organisme, parties prenantes du programme de numérisation des services (n=18). Le panel des personnes interrogées comprend des chefs de projet dans les départements IT, communication et marketing, service à la clientèle, responsabilité sociale de l'entreprise, mais aussi des concepteurs de sites internet et d'applications mobiles, des producteurs de contenus, des analystes de données, et des représentants des usagers. Les parties prenantes externes aux organismes étudiés, comme les clients/usagers impactés par la transformation numérique des services n'ont pas été interviewés. Il est à noter que les acteurs des départements IT – ingénieurs et webdesigners – ainsi que ceux du marketing sont surreprésentés dans l'échantillon (12 sur 18). Cette prédominance est moins le résultat d'un biais de sélection que le reflet des types d'acteurs engagés au premier rang dans la conception des services numériques.

¹⁴ L'analyse qualitative du corpus diversifié de sources d'information a été réalisée avec l'aide d'un logiciel d'analyse de données qualitatives, NVivo, sur base d'une grille thématique. Cette analyse, en particulier celles des entretiens, a permis de saisir les registres de justification mobilisés par les acteurs concernant les choix opérés quant aux modalités d'implication des usagers dans le processus de conception. Les discours révèlent des convergences mais aussi des divergences en fonction de l'organisme auquel ils appartiennent.

DES MODALITÉS D'IMPLICATION DES USAGERS À GÉOMÉTRIE VARIABLE

¹⁵ À la suite Madeleine Akrich et al (1990), il est possible de distinguer deux ensembles de méthodes de représentation des publics dans le travail de conception des services numériques : les méthodes implicites basées sur la mobilisation des porte-paroles officiels, d'une part, et les méthodes explicites fondées sur l'implication directe de (représentants) d'usagers, d'autre part. Dès lors que l'article vise à interroger les conséquences des modalités d'implication des publics au cours de la conception sur les dynamiques d'exclusion et « d'incapacitation » des usagers, l'analyse se focalise sur le second ensemble de méthodes.

¹⁶ Aux côtés d'une logique de mobilisation de porte-paroles officiels des usagers (i.e. designers, ergonomes ou associations de défense des usagers), encore largement repérables au sein des organismes étudiés, la seconde logique, axée sur la participation directe des usagers, apparaît néanmoins de plus de plus répandue.

¹⁷ Le recours à ce second ensemble de méthodes a pour objectif de pallier les écueils traditionnels des premières, notamment ceux liés aux biais ethnocentriques et/ou à la non-représentativité de l'hétérogénéité des usagers. L'implication d'usagers réels, ou du moins de certains de leurs représentants directs, permettraient ainsi d'associer directement les usagers à la définition des services dans une réelle optique de co-construction.

¹⁸ Le discours des acteurs interrogés révèle la prégnance de cette injonction à faire participer des « vrais » usagers au processus de numérisation des services. Sur les terrains observés, celle-ci renvoie autant à une préoccupation visant à déployer des méthodologies centrées usager en vue d'une « opérationnalisation » des principes d'accessibilité numérique qu'à une volonté de parvenir à un fin ciblage du public-cible

dans l'optique d'une personnalisation accrue du service sur le modèle du monde marchand.

- 19 Cet impératif de participation d'usagers « réels » au processus de numérisation se donne concrètement à voir selon deux modalités : l'une repose sur le recueil de la « voix » des usages à travers des sondages d'opinion et autres enquêtes de satisfaction, l'autre repose sur le big data. Ces méthodes se distinguent selon l'intention des usagers à contribuer ouvertement à ce processus, ce qui questionne en creux les dynamiques d'empowerment qu'elles induisent.

UNE PLURALITÉ DE PROFILS D'USAGERS LAISSÉE DANS L'OMBRE

- 20 Le recueil de l'opinion des usagers/consommateurs constitue un besoin stratégique pour tout organisme visant à délivrer un service à l'usager. Celui-ci est devenu d'autant plus central que le développement de l'économie de services place la relation usagers-prestataires au centre des stratégies marketing. Ce besoin a généré nombre de techniques et d'outils visant à « faire parler » cette opinion pour la traduire sous la forme d'indicateurs utiles à la prise de décision. Les cas étudiés n'échappent pas à la règle. L'enquête de terrain révèle l'ingéniosité dont usent les professionnels du marketing pour déployer des méthodes toujours plus innovantes en vue d'amener les usagers à s'exprimer sur la qualité des services numériques en cours de conception ou récemment mis à leur disposition. Des enquêtes de satisfaction dans ses multiples variantes, aux focus groupes, des tests d'utilisation en situation expérimentale à ceux en situation réelle, on ne peut faire ici l'inventaire exhaustif de la variété des procédés qui constituent le cœur du métier des acteurs rencontrés. Pour ces derniers, tout l'enjeu consiste à rendre ces informations opérationnelles pour les équipes chargées de la conception des services numériques. Ces informations viennent ainsi notamment alimenter des persona. Dans le domaine du marketing et du design, ces personnages imaginaires, qui accompagnent tout le processus de conception, sont dotés de caractéristiques psychologiques et sociales, censées refléter celles d'un groupe d'usagers virtuels.
- 21 Bien que ce processus de représentation d'« usagers modèles » soit au cœur du travail de numérisation des services étudiés, celui-ci semble dans l'ensemble négliger la pluralité des publics susceptibles de rencontrer des difficultés face aux services numérisés. Dans les deux cas étudiés, l'image des usagers peu autonomes sur le plan de l'utilisation des services en ligne apparaît sinon grossière du moins peu affinée, ces derniers étant apparentés aux seuls seniors et/ou aux personnes en situation de handicap.
- 22 Or, les situations d'usages problématiques face aux services numériques peuvent toucher un public bien plus large, qui dépasse de simples critères d'âge, de situation de handicap ou de catégorie sociale : il peut s'agir de personnes en situation d'illettrisme ou présentant des difficultés sensorielles, cognitives ou une fragilité sociale, mais aussi des personnes n'utilisant pas de technologies dans la vie professionnelle, doutant ainsi de leur capacité à être « autonome numériquement » ou d'autres, en capacité d'utilisation, mais dépourvues d'équipement ou de connexion satisfaisante.
- 23 Ce constat résulte d'une forme de méconnaissance, de la part des acteurs engagés dans le travail de conception, des « mondes sociaux » des usagers (Flichy, 1995), un phénomène sur lequel les chercheurs invitent pourtant à être attentifs depuis

longtemps. Certes, la démarche de modélisation de la « figure de l'usager » est une étape indispensable à toute numérisation d'un service. Néanmoins, des catégories d'usagers aux stéréotypes, il n'y a qu'un pas, et ici le travail de catégorisation semble minorer la pluralité des situations d'usage susceptibles d'être problématiques dans la vie quotidienne de nombreuses catégories d'individus.

- 24 Parallèlement à ces représentations peu affinées des usagers, ce constat témoigne aussi d'une certaine conception des publics à qui les professionnels souhaitent s'adresser en priorité. Les entretiens révèlent en effet combien les offres de services en ligne sont configurées avant tout pour des individus supposés utilisateurs. L'usager modèle apparaît a priori « mobile et connecté » :
- 25 La digitalisation du journal aux membres peut permettre d'économiser des coûts et de se positionner sur les besoins d'un public avec des habitudes de lecture numérique. On est parti du postulat qu'on avait plus de chance de toucher des affiliés déjà utilisateurs du site. Du coup, on a élaboré trois persona à partir d'interviews menés auprès d'usagers aux habitudes de navigation différentes (chargé de projet Web, mutualité).
- 26 L'attention des acteurs de la conception est ainsi majoritairement portée sur les attentes d'un public déjà connecté, reléguant au second plan, plus ou moins implicitement, les besoins de ceux qui, pour des raisons diverses, ne le sont pas : « Notre volonté est d'adopter certaines normes d'accessibilité numérique mais sans toucher au confort de notre clientèle globale » (customer experience manager, entreprise de transport public). Le propos a le mérite d'être clair. Toutefois, en regard des missions d'intérêt général, ce choix questionne s'il s'effectue en parallèle à une réduction des alternatives aux dispositifs numériques.
- 27 Sur ce plan, des différences apparaissent entre les deux organismes. Au sein de la mutualité, le maintien d'une offre multicanale, d'une version papier du journal en particulier, est présentée comme un « choix politique de solidarité » (direction, mutualité). Chaque membre est ainsi invité à choisir entre l'abonnement papier ou digital. Dans l'entreprise de transport public, en revanche, bien que l'argument de la non disruption des services soit souvent mobilisé pour évacuer la question des effets potentiels d'exclusion de la numérisation, les discours ne laissent pas entrevoir de mesures concrétisant un engagement politique clair en faveur d'un maintien, à terme, d'alternatives aux services numériques.

UNE INVISIBILISATION DES SILENCIEUX

- 28 Bien que les méthodes visant à saisir les feedbacks des usagers témoignent, comme on vient de le voir, d'une diversification croissante dans les cas étudiés, elles ne parviennent pas complètement à dépasser l'éternelle dissymétrie entre les usage(r)s « projetés » et les usage(r)s « réels ». C'est pourquoi, les potentialités inédites qu'offre la masse de données numériques enregistrées (big data) et les calculs informatiques permettant de les analyser (algorithmes) apparaissent, pour les professionnels interrogés, comme la solution d'excellence pour réduire cet écart et capturer les comportements réels des individus au plus près de ce qu'ils sont. De fait, dans le monde de la conception et de la promotion de services numériques – d'intérêt général ou non – les données massives sont considérées telle une mine d'or en raison de l'accès qu'elles offrent à cette matière première tant recherchée : les habitudes en ligne des usagers.

- 29 Par le biais de divers logiciels de reporting, comme Google analytics, d'outils de traçage, comme les cookies, ou de géolocalisation, il est effectivement possible de capturer toutes sortes d'informations laissées par les internautes lors de leur utilisation des services. Qu'il s'agisse de signaux informationnels laissés intentionnellement – un like, un commentaire sur le chatbot – ou de traces d'activités laissées non délibérément – parcours de navigation – chaque activité connectée génère de multiples données personnelles. Leur exploitation constitue une source précieuse pour ceux dont le travail consiste précisément à aligner au mieux les offres de services en cours de déploiement aux pratiques quotidiennes de leurs publics cibles.
- 30 Cette tendance est largement repérable dans les cas étudiés. Le recours au ciblage comportemental est un horizon vers lequel les acteurs de la conception et du marketing rencontrés veulent tendre. Concrètement, il s'agit d'établir des profils utilisateurs à partir de leurs traces numériques : « On a construit les persona sur base des habitudes de navigation du site web. On s'est donc appuyé sur ce que les gens font et non sur ce qu'ils disent faire, c'est ça l'avantage » (chargé de projet Web, mutualité). Ces méthodes prétendent ainsi évacuer le risque de biais subjectifs de toute médiation humaine, considérée comme autant d'interférences venant brouiller la qualité des données. La promesse de ces nouvelles techniques de calcul, en particulier celles fondées sur une logique prédictive, tient à leur capacité à anticiper les besoins futurs des usagers à partir de leurs traces d'activités : « Avec le big data, on peut aller très loin. L'objectif est de faire apparaître uniquement les infos susceptibles d'intéresser le client, comme le prévenir des perturbations sur les lignes qu'il fréquente, par exemple » (digital transformation program manager, entreprise de transport public).
- 31 Ce ciblage comportemental permet ainsi de ranger les individus dans de fins segments avec pour ambition de réduire l'incertitude qui pèse sur les catégorisations sociodémographiques classiques, jugées trop grossières. Comme le pointe Dominique Cardon (2015, p. 87) : « La méticuleuse précision des micro-segments favorise la multiplication de petites niches superposées qui découpent la société sans d'autre plan d'ensemble que celui d'agir efficacement et « commercialement » sur chacune d'elles. »
- 32 De fait, l'offre personnalisée d'information proposée par ces calculs numériques est issue du monde du marketing et basée sur une logique marchande. Dans le cadre de services d'intérêt général, ce glissement pose toutefois question en regard des principes d'intérêt général, lesquels diffèrent fondamentalement de ceux issus du monde de la consommation. À cet égard, des différences sont perceptibles entre les organismes étudiés. Si la personnalisation des services issue d'une logique algorithmique sert clairement de références dans les deux cas, la mutualité se distingue par un souci de mise à distance de certaines pratiques jugées inadaptées à servir le bien commun. Outre le fait de refuser la mise en place de stratégies de ciblage trop invasives comme le retargeting par exemple, les acteurs interrogés témoignent aussi d'un choix délibéré de privilégier, dans certains cas, la médiation humaine sur la médiation algorithmique. L'installation d'un chat plutôt que d'un chatbot sur le site illustre ce choix. En réaffirmant une politique où « l'affilié est au centre », l'objectif est bien de laisser les commandes du dialogue avec l'affilié à un « conseiller capable d'empathie dans des situations de détresse plus ou moins graves touchant à la santé » (manager changement et communication, mutualité).
- 33 Au-delà de ces divergences, les pratiques de personnalisation des services, fondées sur les calculs algorithmiques, sont relativement peu questionnées dans l'ensemble tant

elles semblent naturalisées. Elles constituent en quelque sorte : «Un épistémé, c'est-à-dire un cadre de pensée difficile à interroger tant on y baigne » Boullier (2016, p. 22). Cet « impensé » (Robert, 2011) favorise un discours focalisé sur les avantages inédits de ces méthodes sans réel regard critique sur ce qu'elles sont susceptibles d'induire en termes d'exclusion et de disempowerment des usagers. Parce qu'elles offrent des contenus adaptés à chacun d'eux, elles sont avant tout considérées comme un processus favorisant l'inclusion des individus dont « l'autonomie numérique » est fragile :

- 34 L'objectif de faire remonter des contenus spécifiques selon les comportements de l'usager, c'est radicalement nouveau et ça rend l'information directement accessible. Soyons clair, le journal papier est bien écrit, mais il peut manquer d'accessibilité pour les membres ayant du mal à trouver l'information désirée. Ça va résoudre le problème (directeur communication, marketing, presse et promotion de la santé, mutualité).
- 35 L'argument n'est pas sans fondement : en laissant aux calculs le soin de sélectionner l'information adaptée à l'usager, le guidage algorithmique réduit l'incertitude quant à la qualité du contenu dans un univers où l'abondance rend le tri difficile. En ce sens, le format numérique apparaît plus accessible que son homologue papier.
- 36 Cela étant dit, ce raisonnement évacue les incidences de ces méthodes sur le processus « d'invisibilisation » de certains usagers. Celles-ci soulèvent, en effet, des questions en matière de représentativité des traces captées. Dès lors que les services sont conçus et promus à partir des seuls comportements des personnes connectées, ne pas produire de données numériques équivaut en quelque sorte à ne pas être écouté, ni même être pris en compte dans le processus. Ces méthodes mènent à « invisibiliser » les pratiques de ceux qui, par contrainte ou par choix, sont peu ou non actifs en ligne. Jen Schardie (2016) pointe en ce sens que le big data est trop petit et souligne l'importance de se demander chaque fois si l'échantillon considéré est toujours représentatif de ce qu'il prétend représenter.
- 37 Les biais de variable omise et de sélection (Bertail, Bounie, Clémenton et Waelbroeck, 2019), inhérents à ces pratiques, sont globalement peu considérés par les professionnels rencontrés. Certains propos semblent même parfois assimiler implicitement les personnes connectées à tous les individus susceptibles de bénéficier de leurs services : « Avec les algorithmes, on n'utilise plus d'échantillon, mais bien l'ensemble de nos usagers, c'est révolutionnaire » (digital transformation program manager, entreprise de transport public).
- 38 Or, cette question de représentativité de la pluralité des usagers est essentielle dans le cas de la conception de services émanant d'organismes d'esprit public, dont les principes fondateurs consistent précisément à offrir des services également accessibles à tous les usagers et à s'assurer de leur continuité.

UNE INCLUSION DE L'USAGER AU DÉTRIMENT DE SON EMPOWERMENT

- 39 Aux côtés de cette forme de déni de reconnaissance d'une partie des usagers, peu ou pas connectés, la valorisation des seuls bénéfices du guidage algorithmique évacue aussi ses conséquences sur les processus d'empowerment des individus connectés. Si la conception des services des organismes concernés apparaît bien « centrée usager », c'est davantage en tant que consommateur contributeur que véritable citoyen partie prenante d'une co-construction des services. Leur participation se limite à livrer plus

ou moins volontairement leurs traces numériques en échange d'un service rendu. Certes, de nombreux individus donnent sans résistance leurs données parce qu'ils y trouvent un intérêt. Toutefois, cette participation apparaît par « défaut » dans la mesure où elle conditionne l'accès aux services dont les usagers ont besoin. Le caractère actif et « capacitant » d'une telle forme de participation peut en ce sens être questionné.

- 40 Corrélativement, cette modalité inédite d'implication des usagers soulève des questions en matière d'orientation des comportements et de liberté réelle de choix. Au nom d'une personnalisation accrue des services, les usagers recourent aux contenus que les algorithmes « poussent » vers eux parce qu'ils sont censés coller à leurs besoins. Si cette technique de fidélisation offre à l'individu des outils pour soutenir ses décisions, elle lui retire du même coup une partie de son pouvoir d'action : l'algorithme supplée désormais ses choix ; il n'a plus qu'à se laisser guider automatiquement.
- 41 Ce phénomène pose d'autant plus question que rares sont ceux qui comprennent les mécanismes qui président à cette offre de services sur mesure et qui sont donc en capacité d'adopter une posture distanciée face à ce fonctionnement, voire de s'en émanciper. Dans des secteurs particulièrement sensibles comme celui de la santé, les acteurs rencontrés n'ignorent toutefois pas cette problématique et choisissent, dans certains cas, de conserver une distance avec les possibilités de prédiction automatisées.
- 42 « On a un algorithme permettant de détecter les membres qui ont une probabilité de développer un cancer par le biais des data en notre possession. Technique, on sait le faire. Mais on ne le fait pas pour des raisons éthiques. On se demande jusqu'où on va dans ce champ-là. Est-ce que la personne est vraiment encore acteur de ça ? » (directeur communication, marketing, presse et promotion de la santé, mutualité).
- 43 Par ailleurs, en se référant sur la seule régularité des comportements passés pour préjuger des besoins futurs, l'offre singulière de services enferme en quelque sorte les usagers dans leurs propres pratiques. Elle contribue, en ce sens, sans le vouloir, à figer les pratiques sociales dans leurs aspects inégalitaires (Cardon, 2015). Loin d'avoir la capacité d'infléchir une nouvelle tendance, les calculs algorithmiques exacerbent au contraire l'existant. Il semble donc inopérant de laisser le soin à ces méthodes d'implication des usagers d'inclure automatiquement les personnes vulnérables éprouvant des difficultés à faire valoir leurs intérêts en ligne et de rétablir ainsi davantage d'égalité.

Conclusion

- 44 En somme, qu'il s'agisse d'une participation volontaire des usagers à travers l'expression de leur point de vue ou d'une implication davantage « par défaut » par le biais de la captation de traces numériques, les dispositifs d'écoute des usagers dans les processus de numérisation de services étudiés semblent globalement sous-estimer tant la pluralité des situations problématiques face aux services en ligne que celle des publics susceptibles de les rencontrer. Ces derniers apparaissent souvent stéréotypés voire même « invisibilisés » en raison des choix posés par les acteurs de conception et de biais inhérents aux techniques de captation des « points de vue ».
- 45 La faible représentativité des profils en difficulté face aux services numériques et, plus globalement, la faiblesse du processus de représentation des publics cibles sont loin

d'être des constats circonscrits aux deux cas étudiés. Ils rejoignent les conclusions d'autres travaux qui soulignent combien la représentation des usagers lors de la conception de dispositifs numériques reste une question problématique au sein de nombreuses équipes de conception d'innovations (Labarthe, 2014).

- 46 Les dispositifs numériques semblent conçus globalement pour répondre aux attentes d'un usager standard « mobile et connecté ». Cette tendance à réduire les personnes en difficulté face au numérique à une minorité « négligeable » risque bien d'aboutir à l'émergence progressive de services à deux vitesses, et ce malgré leur mission d'intérêt général. Aux usagers connectés, les organismes offriront ainsi des services personnalisés en temps réel, tandis qu'aux autres, ils maintiendront l'accès aux services de base.
- 47 C'est pourquoi, il est important que les acteurs de la conception déconstruisent plus systématiquement l'image qu'ils se font des publics en difficulté face aux démarches en ligne, et entament plus largement une réflexion sur les « invisibles » dans les processus d'implication des usagers. L'enjeu n'est pas ici de viser une veine neutralité des calculs sur lesquelles se fondent ces méthodes. Il est plutôt d'atteindre une obligation de loyauté (Cardon, 2018), c'est-à-dire d'exiger de la part de ceux qui les mettent en œuvre de reconnaître ouvertement les formes de représentation du public qui les ont présidées ainsi que les risques d'exclusion qu'elles contiennent.
- 48 Par ailleurs, même dans le cadre de dispositifs visant à intégrer finement les besoins des usagers, le travail de création des services reste peu partagé entre les usagers et les professionnels. Les usagers sont, le plus souvent, « sommés de rester à leur place ; ils ne prennent pas part aux débats techniques et définissent encore moins à la place des innovateurs l'éventail des choix possibles » (Akrich, 1998, p. 2). Peut-on parler d'usager autonome lorsque la participation se limite à offrir plus ou moins volontairement des traces numériques en échange d'un service ? Toute l'ambivalence des big data est résumée ici : on assiste à l'éviction de l'individu, comme le constate Antoinette Rouvroy (cité par Guillaud, 2013). Ce dernier se voit proposer ce qui est bon pour lui sans même qu'il ait besoin de s'interroger et d'en formuler le besoin : « Le consommateur est roi mais le roi a disparu. »
- 49 En Belgique, à ce stade, la numérisation n'entrave pas frontalement l'accès aux services étudiés étant donné que d'autres modalités d'accès, bien qu'elles soient progressivement réduites, sont maintenues. Toutefois, son accélération, ces dernières années, crée un contexte de dépendance au numérique qui réduit progressivement la liberté des individus de choisir leurs modalités privilégiées d'interaction avec les services étudiés, parmi un éventail de possibilités qu'ils jugent estimables (Sen, 2000). En ce sens, c'est moins l'environnement numérique en soi que son caractère progressivement incontournable qui contribue à produire des dynamiques d'exclusion et de disempowerment des usagers. Plus que jamais, il est nécessaire d'inscrire la problématique de l'inclusion numérique dans un projet organisateur collectif en rappelant aux acteurs de la numérisation la portée politique de leurs choix techniques.

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NOTES

1. Parmi les notables exceptions, voir le récent numéro de la revue tic & société. *Numérique et situations de handicap : les enjeux de l'accessibilité*. 12(2), 2018. Ces travaux abordent néanmoins l'accessibilité numérique par le prisme singulier des situations de handicap.
2. Cet article synthétise une partie des résultats empiriques issus d'un volet de la recherche IDEALiC, *L'inclusion numérique par l'amélioration de l'autonomie et du pouvoir d'agir au fil du parcours de vie*. Ce volet a été réalisé avec la collaboration de Dana Schurmans. La recherche a été financée par la Politique scientifique fédérale (BESLPO) en Belgique dans le cadre du programme BRAIN-be. Axe 5 – Grands défis sociaux.
3. Pour plus d'informations sur les déclinaisons de cette notion, voir les Working Paper du CIRIEC Belgium sur les enjeux et l'importance des services publics en Belgique. Repéré à : <http://www.ciriec.uliege.be/publications/wp>

4. Dans le cadre de la recherche IDEALiC, trois organismes d'intérêt général ont fait l'objet d'étude de cas. Le troisième cas n'a toutefois pas été retenu pour cet article dans la mesure où il ne déploie pas de dispositifs d'implication directe des usagers.

RÉSUMÉS

Les recherches sur les inégalités numériques ont dans l'ensemble porté leur attention sur les usages et les usagers des technologies numériques, en particulier de l'informatique connectée. En revanche, peu d'entre elles ont appréhendé ce phénomène par le prisme des fournisseurs de services en interrogeant l'influence des politiques de numérisation sur le façonnage de dispositifs numériques plus ou moins inclusifs et capacitants. Cet article vise dès lors à analyser le processus de « mise en technologie » de choix institutionnels relatifs à la dématérialisation des services dans deux organismes d'intérêt général en Belgique. En prenant appui sur les travaux menés au Centre de Sociologie de l'Innovation (Akrich, Callon et Latour, 2006) et à travers une méthodologie d'étude de cas, il se focalise sur un aspect particulier du travail de conception, celui qui a trait aux modalités d'implication du « point de vue » usager au cours du développement. Les résultats révèlent globalement des biais qui tendent à exclure une partie des usagers et qui ne favorisent pas l'empowerment de ceux qui sont pris en compte.

INDEX

Keywords : Dematerialization, services of general interest, case studies, digital inclusion, emancipation

Mots-clés : Dématérialisation, services d'intérêt général, études de cas, inclusion numérique, émancipation

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Rethinking Access in a Polymedia Environment: From equipment to services

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Abstract

The concept of access has traditionally been defined as a binary distinction between those who have access to the internet and those who do not. However, this oversimplifying definition does not accurately describe the present technological and social changes. Hence, distancing from this dichotomy, we move from a focus on technology affordances to the concept of polymedia to offer an alternative understanding of the concept.

On the basis of a broad research project propelled in Belgium, one of the main findings suggests that having access ceases to be solely about the platforms to encompass the possibility of accessing the services needed to achieve specific purposes. Therefore, we argue that 1) motivational access is not only about attitudes; 2) individuals' needs should be at the forefront of digital agendas; 3) we introduce the concept of digital fluidity as a metaskill for autonomous use.

Keywords

Digital exclusion; access; digital divide; digital inequalities; polymedia



Introduction

I had this guy leave a voicemail at work, so I called him at work and then he emailed me to my BlackBerry and so I texted his cell and then he e-mailed me to my home account and the whole thing was just got out of control. And I miss the days when you had one phone number and one answering machine and that one answering machine had one cassette tape and that one cassette taper either had a message from a guy or didn't. And now you just have to go around checking all these different portals just to get rejected by seven different technologies. It's exhausting.

Drew Barrymore as Mary in the movie 'He is just not that into you'. Kwapis (2012)

Being in an environment of polymedia matters because polymedia allows the choice of the medium or the combination of media that best convey one's feelings and intentions.

Madianou and Miller, 2013, p. 151

We chat on WhatsApp, manage our social lives via Facebook and Messenger, work on Skype or through conference calls, and all these things often happen at the same time. Indeed, the present western media environment has been enriched by various technological developments, giving us access to virtually all types and forms of interactions: whether we wish to have a one-on-one conversation with a spouse or whether we would rather organize weekend plans through a group conversation, the current media ecosystem renders ultimately possible to choose the best way of accessing technology in order to convey particular emotions and messages (Baym, 2010; Madianou & Miller, 2012).

Looking specifically at digital inequalities studies, it appears clear that having access to technology has drastically changed from its original definition. In fact, while the initial research on the digital divide focused on a binary distinction *between* people with access to internet and people without access (+REF), digital inequalities studies have evolved to take into account differences in usage, skills and outcomes (+REF) *among* users of the internet. However, while research has moved past the initial dichotomy between 'haves' and 'haves-not', the traditional model of access has remained largely unchallenged. As a matter of fact, most research on digital inequalities (+REF: van Deursen & van Dijk, 2015; van Deursen & van Dijk, 2019; Courtois? Helsper?) remain largely built upon the initial model of van Dijk (2005) presenting access as sequential steps ranging from material access to internet usage access. While the seminal work of van Dijk (2005) remains essential to understand digital inequalities, the present media ecosystem compels us to ask the following question: what does it mean to have access to technology in an ever richer media environment?. Put differently, given the growing ubiquity of technology does the concept of access need to be rethought further?



To be clear, the aim of this article is not to provide a 'new' model of access; rather, this article seeks to offer an alternative understanding of the concept of access by using the concept of polymedia (Madianou and Miller, [+REFs](#)) to describe the current technological and social changes. At a theoretical level we argue that the exploration of the concept of access within digital inequalities studies, because of the strong influence of quantitative research ([REFs](#)) is deeply 'equipment-centric'; in other words, a lot of studies focus heavily on the characteristics and architectures of a specific technology to explain and understand how it is accessed and used by individuals ([+REF](#)). In the pages that follow, it will be argued that the concept of polymedia can serve to broaden the theoretical scope of digital inequalities studies as it provides a non-equipment centric approach to technology. In fact, polymedia understands technology, from a qualitative perspective, as an integrated ecosystem intricately related to how individuals experience everyday life. In that sense, the use of the concept of polymedia within digital inequalities studies allows to grasp the varieties of practices and meanings associated to the access to technology. At an empirical level our study shows that access has moved from equipment to services. Our research suggests that for most people access to technology has ceased to be solely about the equipment (e.g. laptop, computer, etc.); instead, access to digital technologies has progressively evolved to encompass the possibility of accessing the services (e.g. WhatsApp, Outlook, etc.) needed to achieve specific communication needs. This is not to say that access to equipment or material access (van Dijk, 2005) is no longer a priority of our respondents. Rather, the communicative and emotional needs that can be achieved through a service, *regardless* of the equipment used, define how and through which medium access to technology is performed.

This shift from equipment to services demonstrates the importance and originality of this article insofar as rethinking access in the present media ecosystem elicits two main implications. First, motivation to access and/ or use technology is not *solely* spurred by attitudes, whether positive or negative (van Dijk, 2005; Reisdorf, 2017); rather, we contend that the needs of individuals have an influence on how and why they access technology. Second, we argue that the media-richness of the present ecosystem necessitates the development of digital skills going further than the capacity to use a diverse range of equipment; instead, it should encompass the cultivation of a fluidity of use across services and equipment. We thus introduce the concept of *digital fluidity* as a necessary metaskill in a polymedia environment.

This article is organised in the following way. In section 2 we give a brief overview of the evolution of digital inequalities studies and concentrate on the concept of access as described in the model of van Dijk (2005). We outline the limitations of the model and introduce in Section 3 the concept of polymedia. In section 4, we present our methodological approach based on 85 in-depth interviews. In section 5 we confront our findings with existing literature on digital inequalities and reflect on the broader theoretical consequences of our work.

1. A gradation in divides: digital inequalities and the concept of access

Early research understood the digital divide primarily as a dichotomous distinction *between* those having and those lacking a physical connection to the Internet (van Dijk, 2005; OECD, 2003+[REFs](#)). This 'first-level digital' divide was based on the assumption that once people had access to the Internet, they would all start using the Internet in the same way([REFs Robinson?](#)) Yet, as more and more people obtained access to the Internet and to technology in general, researchers started noticing other types of inequalities *within* groups of users. Termed the 'second-level digital divide' or



digital inequality studies (Hargittai,[REF2002?](#)), this new research agenda sets out to explore inequalities in skills and usage (DiMaggio et al, 2004; van Dijk, 2005; Zillen & Hargittai, 2009), providing valuable classifications showing for instance what skills are needed to use ICTs, or what activities people perform online, and how such activities have an impact on the offline outcomes of individuals (Blank & Groselj, 2014; van Deursen & van Dijk, 2011, 2014; Witte & Mannon, 2010). The outcomes achieved and the feedback such outcomes provide into users' offline lives are the focus of the 'third-level digital divide' (van Deursen & Helsper, 2015; Helsper, van Deursen & Eynon, 2015; 2017). The outcome-based framework is concerned with understanding how traditional indicators of inequalities – access, usage, skills – are translated into offline outcomes. Drawing on Bourdieu's capital theory (1986) and on van Dijk's access model (2005), van Deursen and Helsper (2015) distinguish four sorts of outcomes – economic, social, cultural, personal – to explore which type of users' are the most able to gain beneficial outcomes from their use of the internet.

A. Traditional model of internet access

In his influential work *The deepening divide*, van Dijk (2005) defines access to the internet as a process of appropriation starting with attitudes towards the internet, advancing to physical and material access, to culminate in proper skills and usage (van Deursen & van Dijk, 2019; 2015; van Dijk, 2012; 2005). At the heart of this model is the resources and appropriation theory (van Dijk 2005) asserting that categorical inequalities, personal – e.g. age – and positional – e.g. level of education, lead to an unequal distribution of resources; this unequal distribution results, as a consequence, in unequal access to the internet (van Deursen & van Dijk, 2019).

At the core of the model are four types of access or phases:

- Motivational access: this first stage is primarily shaped by attitudes towards technology and, according to van Dijk (2012;2005), a preliminary condition for the full appropriation of technology.
- Physical and material internet access: this second step refers to the opportunity and the means to access the internet (van Deursen & van Dijk, 2019, 2015; DiMaggio et al. 2004). It entails, on the one hand a physical access to an internet connection, and on the other hand, costs for hardware, software and services (van Deursen & van Dijk, 2019; 2015; van Dijk, 2012; 2005). According to van Dijk (2005), even when physical access has been achieved, strong differences can persist in the range of equipment owned and access. Therefore (new) material divides can appear as a result of differences in the number of devices used to access internet (van Deursen & van Dijk 2019, 2015). Yet for van Dijk (2005), this risk of divide in material access can be reduced insofar as the more devices people have, the more opportunities to access the internet there are for them.
- Internet skills access: in this third phase, van Dijk (2005) makes a distinction between medium and content related skills. Medium-related skills entail a) operational skills – i.e. the basic skills to operate technology; b) formal skills – i.e. ability to understand, work with and navigate the Internet hyperlinked structure (van Deursen & van Dijk, 2015). Content-related skills comprise c) information skills – i.e. the literacies needed to find and process information; d) strategic skills – i.e. goal-oriented behaviour to attain solutions in the most optimal way (van Dijk, 2012; 2005).



- Internet usage access: this final stage of the model is determined by the frequency of use, the length of time the internet is used, and/or the type of activities performed online (van Deursen & van Dijk, 2015; van Dijk, 2012; 2005). This last factor on the type of use has been the focus of many research on digital inequalities (Blank & Groselj, 2014; van Deursen & van Dijk, 2014; Hargittai & Hinnant, 2008) with the premise that lower educated users spend more time on entertainment applications (e.g. social media) (van Dijk, 2012), while higher educated users have more 'capital-enhancing activities online' (Hargittai & Hinnant, 2008) such as information seeking or using the internet for work-related reasons.

B. Limitations of the model

While the model of access (van Dijk, 2005) has proven useful for the development of digital inequalities research, van Dijk's theory (2005) presents two main limitations. First, theorizations of digital inequalities have certainly evolved for the better yet, at every stages of these divides, having access to technology is still understood as access to material (physical) equipment, what van Dijk (**REFs**) calls material access. As such, it is implicitly assumed that having access is defined either by the ownership of a specific device, or that having access consists primarily in the acquisition of the relevant competencies for the use of particular devices(**REFs**). However, this view is problematic because it adopts an 'equipment-centric approach' viewing access *not as a single decision to purchase a particular technology but a continuing process of getting access to new versions of hardware and software, peripheral equipment and subscriptions* (van Dijk, 2017:2). By presenting access solely as the provision of physical artefacts, we argue that the equipment-centric approach of the traditional model of van Dijk (2005) misses the 'mundanity' (Pink et al, 2017, Boellstorff, 2008) of technology. Indeed, given how technological advances are transforming individuals' daily lives (Helsper, 2013), the traditional model of access does not sufficiently recognize how the use and adoption of technology go beyond mere hardware and software, but is highly influenced by everyday social arrangements. In that sense, the mundanity of technology refers to how technologies quietly seep into the flow of everyday life and are incorporated into the routines of individuals (Pink et al. 2017). Hence, looking at the present media-richness of the Western context, we argue that access to technology is not always progressive endeavour; rather, access in the present media ecosystem has become a fluid interplay between different media. Understanding these fluid interplays is, we contend, key to grasping how and why people access technology.

Second, at the core of van Dijk's access model (2005) is the resources and appropriation theory placing emphasis on the categorical differences between individuals. While positional and personal categorical inequalities still play a role, we argue that the sole focus on the relationships between individuals obscures the relationships said individuals forge with their devices. Indeed, as technology becomes mundane, so do people create complex entanglements with the digital (**REFs?**), thus shaping a) how and why they access and use technology; b) how they think about their devices, the meanings they attribute to their media (Gershon, 2010). These entanglements in turn inform *what people do* with their devices. As such, it is our belief that understanding inequalities cannot be divorced from understanding the practices and entanglements wrought with technology. Yet, for such understanding to be possible, there is a need to shift the focus towards a 'non-equipment centric approach'. By understanding media and technology as part of the everyday life, a 'non-equipment centric perspective' allows to grasp the varieties of practices and meanings people attribute to technology. We thus argue that the theory of polymedia can, on the one hand serve to broaden the theoretical framework of digital inequalities research, and, on the other hand, alleviate the insufficiencies outlined above. Indeed, rather than focusing on singular technologies, the concept of



polymedia shifts the discussion towards acknowledging the digital as an integrated ecology: what matters is not so much which technology is being accessed and/ or used, but how users exploits the affordances (**REFs cf. Hutchby**) of the different technologies at their disposal to achieve a specific need. In other words, access to technology is not solely a matter of (hard)software; access to technology is also highly influenced by the particular needs individuals' wish to fulfil.

2. Towards a polymedia understanding of access

The concept of polymedia is set within the ethnographic research of Mirca Madianou and Daniel Miller (2012; 2013; +**REFs?**). Their research focuses on migrating mothers who have left their children in their home countries to look for work in the United Kingdom. To understand the family use of media during times of prolonged separation, they investigate how parents and children look after each other when they live in different countries and are separated because of migration.

Madianou and Miller (**REFs**) argue that the emergence of internet and mobile phone-based platforms (i.e. email, instant messaging apps, social media, etc.) has engendered a new communicative environment they call 'polymedia'. In fact until fairly recently communicating via any technology meant choosing between a very limited set of media, usually determining whether to send a letter or make a phone call. As a result, people were very much constrained by the specific propensities of the medium available for communication. With the extensive time lag between the sending and receiving of letter, and the costs of overseas phone calls, people were quite aware of the outlays or restrictions that their choice of medium implied. Yet, with the technological advances observable notably in the West, there has been a surge in manifold possibilities of communication. Consequently, users became less and less aware of the costs associated to a single act of communication and more responsive to the possibilities of action laid out in this new media environment (Bareither, 2019; Williams, 2017; Jansson, 2015). Polymedia refers thus to this '*profound transformation in the usage of increasingly converging technologies*' (Madianou & Miller, 2012:2). The concept of polymedia asserts that few people confine themselves to a single medium; most individuals' operate a repertoire of alternative media which will be different depending on the people to whom communication is being addressed, or the kind of messages exchanged, but also depending on the emotional significance of the communication process. Hence in a polymedia environment people take advantage of different communicative opportunities (email, instant messaging, etc.) and/ or switch between these diverse opportunities to achieve specific purposes: what cannot be achieved by email can be accomplished by webcam or phone calls. This integrated structure that represents polymedia allows to discuss two main implications of great relevance for digital inequalities studies.

First, the concept of polymedia understands digital media as an integrated structure in which each medium is defined in relation to all other media : a computer is not just a computer, it is its difference from a smartphone that makes it what it is. From an epistemological perspective, polymedia draws on the anthropological structuralism of Levi Strauss (1963) and brings forth a theory of uses of, and access to technology less focused on individual channels of communication and more observant of media as symbolic environment. Polymedia as a theorization of the present media ecosystem perceives digital technologies less from the viewpoint of their singular properties or affordances, and more in relation to the other technologies that could have been equally employed to convey a particular message, but have not been chosen by the user. In other words, deciding between texting, calling or sending an email is not only determined by the technological affordances of a particular medium; it is ultimately more about making choices as to how best to convey a message.



Whereas digital inequalities studies tend to assume that differences in access and use result from a hierarchy in media (**REFs**) – from desktop to computer, to laptop, the concept of polymedia shows that in their daily interactions individuals do not perceive such hierarchies; rather, they combine a multiplicity of media according to their needs and contexts of use. This certainly does not mean that material costs are totally absent from issues of access (van Deursen & van Dijk, 2019), nor does it mean that physical access has become obsolete. Instead, we argue that the concept of polymedia provides digital inequalities research with the space to go beyond an equipment-centric perspective in order to understand *how* and *why* do individuals' create fluid and mobile media practices in their daily lives.

Second, in a 'media-abundant' environment, individuals' *choose* which medium is best suited to convey a specific emotion or achieve a particular communicative goal from a catalogue of ever proliferating technologies. This is what Madianou and Miller (**REFs**) call the re-socialization of the media: the choice of technology is no longer predicated solely upon technical or economic grounds, but the decision to use a technology instead of another is more and more predicated upon the appropriateness of specific situations and contents, or on the selection of the most suitable digital medium to enact a particular type of relation (e.g. friendships, courtships, etc.).

On the one hand, the re-socialization of media is of great relevance for digital inequalities studies insofar as it emphasizes the agency of individual users. Indeed, as mentioned by Chambers (2019) the rise of polymedia changes the media ecosystem, from one in which technology dominates to one in which people have a sense of agency over technology (2019:9). In the western polymedia context, people *choose* the medium through which they desire to achieve their communicative purposes and they *choose* the scale at which these interactions occur (Miller **REF on scalable sociality**). Yet, in the context of digital inequalities studies users are often portrayed as in need to be empowered (**#REF**), but their agency is seldom acknowledged as being already noticeable in their daily uses of technology. On the other hand, the re-socialization of the media shows the moral implications attached to the fact of choosing one medium instead of another. As people exploit the contrast or relationality between media to select the medium best suited to convey their messages, each choice entails moral and emotional consequences: to choose to send an email rather than a text message in the context of courtship for instance implies the moral responsibility of the sender, who is not so much judged based on the medium selected, but held responsible for using an (in)appropriate medium for this type of communication. Put differently, the choice of the medium is itself a communicative act. This moral aspect of polymedia is explicit in Gershon's study (2010) with what she terms 'media ideologies': people's beliefs about media and the ways they ought to be used in specific context. These ideologies are not just based on the technical characteristics of a technology but they revolve around individuals' ideas about how a technology (i.e. a text message instead of an e-mail) structures communication. For digital inequalities research the re-socialization of media would lead to grasp how people's media ideologies affect and shape the way they engage with digital media. Categorical differences (van Dijk **REF**) certainly matter, but do not tell the whole story: rethinking access to technology implies understanding the social and cultural contexts within which this technology is being accessed and used.

3. Methodology and analysis

This article is based on the findings of IDEALiC – Setting the Future Scene of Digital Inclusion, a research project set in Belgium and conducted in collaboration with the Catholic University of Louvain (UCL/FTU). The research project focuses on the digitalisation of public and private services in Belgium and its impact on citizens' digital autonomy. Throughout the research, we apply a life course perspective approach to highlight the complex and changing perceptions of individuals



regarding technologies. This approach aims at mapping, explaining and describing social positions over time (Elder, 1994; Meyer, 2009). This approach states that individuals at each life stage are experiencing various life transitions. The notion of 'life stage' points to the roles and social positions an individual occupies over time, whereas 'life transitions' describe the patterns taken by the social positions over time. From this perspective, each transition corresponds to a significant 'step' in life which not only modifies individuals' social status and roles, but also affect their participation in different social spheres.

This article is based on 85 in-depth interviews with respondents distributed across the three following stages:

Table 1: Overview of the respondents

- The first life stage (18-30 years old) , henceforth called the 1st LS, corresponds to the period in which young adults are building autonomy in all domains of the social life (e.g. employment, relationships, etc.) and are steadily increasing their social, economic and political participation in society.
- The second life stage (31-50 years), henceforth called the 2nd LS, refers to a period in which individuals are assumed to have developed a certain autonomy and participate fully in society; however, the challenge at this point is to maintain this autonomy and full participation while at the same time managing work, family, and life hazards.
- The third life stage (51-70 years old), henceforth called 3rd LS, can be characterized by a desire to remain active in society while ageing remain an important societal challenge.

In addition to the life course perspective, several other criteria were taken into consideration for the selections of respondents:

- The level of education: low education level (LE; maximum middle school diploma); medium education level (ME; maximum high school diploma); and high education level (HE; minimum bachelor degree);
- The family situation: in couple, living alone, living with parents;
- The presence of children: no children, children living at home, children no longer living at home;
- The social status: employed, retired, student.

The aim of these selection criteria was to have a varied range of profiles over the life trajectories. The sampling was not aimed at statistical representativeness, but sought for the equal representation of a wide range of individuals. The life course perspective allows us to generate new insights regarding the similarities and divergences of access to, and uses of digital media. What patterns are present across the three life groups? How do these patterns intersect? How do they diverge? As such, this approach finds its relevance in the fact that it sheds light on the complexity and fluidity of individuals' digital practices, enabling us to grasp the remarkable diversity through which people combine and adapt technologies to fit their needs.

Table 2: Overview of the respondents: additional



Interviews were conducted in Belgium between April-June 2017 and February -June 2018. The respondents were recruited via the networks of the research team and through posts on social media. For groups that were more difficult to reach (e.g. homeless), the research team reached out to its network of grassroots organizations to contact these respondents. Each of the 85 in-depth interviews was conducted face-to-face at the desired location of the respondent (mostly at home).

As aforementioned, the concept of access was not specifically the goal of this research project; rather, this project aimed at understanding how the progressive digitalization of life is affecting citizens' use of digital technologies. With this aim in mind, we explored throughout the interviews 7 different life domains elicited on the one hand by the literature on digital inequality ([REFs](#)), and on the other hand by the empirical findings from previous research on the topic([REFs](#)): (1) Mobility, 2) Health, 3) Economy, 4) Social and personal life; 5) Participatory life; 6) Administration; 7) Work. For each of these life domains we investigated: a) how technology is being used, and b) what are the potential consequences of a digitalization of society within each of these life domains.

The interviews were then transcribed and coded using NVIVO, a data analysis software designed for rich text-based data. A codebook was developed to ensure the efficient management of large volumes of complex data. The codebook was divided into six different themes: (1) trajectory of life; (2) conditions of access and use; (3) digital engagement; (4) autonomy; (5) outcomes; and (6) perceptions.

The codebook is based on the combination of two methods of exploring data. On the one hand, a deductive or 'top down' approach was used starting from theories on digital inequalities (Carretero, Vuorikari, & Punie, 2017; Helsper, 2008, 2016; Helsper & Eynon, 2013; Helsper, van Deursen & Eynon, 2015; van Deursen, Helsper, Eynon & van Dijk, 2017; Mariën & Baelden, 2016; van Dijk, 2005) to explore the data gathered during the in-depth interviews. This theory-led approach is observable with the fifth theme on outcomes, for instance, referring to the benefits someone is able to draw from his/her engagement online (van Deursen & Helsper, 2015). This theory-led perspective enabled the research team to bring to light processes not explicitly identified by the respondents.

On the other hand, an inductive or 'bottom up' approach was used moving from observation of concrete realities to the conceptual understanding of the data collected. This 'bottom-up' perspective allowed the research team to 'hear' the voices of the respondents through the analysis. It allowed the construction of theoretical narratives based on the interpretation and subjective nature of interviews. This approach is observable with the sixth theme on perceptions, which refers to individuals' representations of, and relationships with technology, and which emerged organically during our conversations with the participants.

4. Rethinking access in a polymedia environment

A. From equipment to services

To capture the shift in access – from equipment to services – we focus in this article on the fifth life domain of this research, namely social and personal life. We define 'equipment' as the material used to access internet (e.g. computer, smartphone, laptop, etc). The term 'service' refers to the wide range of digital platforms – from professional platforms (e.g. Outlook) to social media (e.g. Facebook) and entertainment (e.g. Netflix) used by respondents in this research. The particularity of a service is that it can be accessed whenever and wherever desired, *regardless* of the equipment used. When discussing both equipment and services indiscriminately, we use in this article the broad term of media/medium to refer to them.



To answer their interpersonal communicative needs, we observed in our research how individuals combine and express themselves through a varied range of media. Looking closer at the diversity of combinations, our findings suggest that having access to technology is a creative process whereby the possibility of accessing the services needed is regarded by our respondents as more important than the equipment through which these services are accessed. In other words, access to technology ceases to be solely about the equipment (e.g. laptop, smartphone, etc.); instead, our research shows that access to technology in a polymedia environment has progressively evolved to encompass the possibility of accessing the services needed to achieve particular goals. This possibility, we have seen in our research further influences how and why technology is used: whether access to the service is obtained via a desktop, tablet or a smartphone is of lesser importance; individuals in our research attach more value to access to services.

Therefore to conceptualize this shift in access we first look at the two levels at which this shift in access appears in our research, what we have termed the infrastructure level and the affective level. The *infrastructure level* refers to how users in this research develop their personal repertoires of communication, combining equipment and/ or services to achieve particular communicative goals. The *affective level* focuses on how users in this research manage their social and intimate relationships through these repertoires of communication. While we make a distinction between these levels for the sake of clarity, they nevertheless intersect as people use and combine different media to meet their needs. It should also be noted that these levels are not definitive, nor should they be understood in a hierarchical manner; rather, they give an account of the entanglement between technology and digital practices, and the significant forms and variability of the concept of access. Second, we identify the two main implications of this shift: a) access to technology is not solely spurred by attitudes, but needs play a great role; b) developing a fluidity in usage is an increasingly important competency in the digital age. All this taken together and developed in the following paragraphs allows us to present an answer to our initial question: what does it mean to have access to technology today?

a. The infrastructure level

As highlighted by Baym (2015) there has never been more ways of communicating with one another: once limited to face-to-face interactions, new technologies have steadily developed new ways of interacting with one another: from video chats to instant messaging or vocal notes. As mentioned above, physical access, that is the access to a specific equipment has not become obsolete; as a matter of fact, the three most referenced equipment in this research – age, gender and education all taken into account- are respectively the smartphone, the laptop, and the tablet. However, it must be noted that ownership of equipment is influenced by socio-economic status (van Deursen [REFs](#)): we noticed in our research that the higher the socio-economic status – whether the respondent is highly educated, employed, etc., the higher the number of equipment owned (usually a combination of smartphone, tablet and laptop). This naturally confirms digital inequalities research putting an emphasis on categorical differences; nevertheless we contend that while such differences remain important, they do not entirely allow to look at the bigger picture.



Our research suggests that even as physical and material access remain important, it is no longer primordial for our respondents. In fact, the infrastructure level indicates that what matters more for our respondents is the possibility to access a specific service. As such, our research shows that when equipment are used, this is not done at random; instead, respondents in this research *choose* which equipment will allow them to access and use specific services in the most efficient way; in other words, the focus is the service, the equipment becoming a means to an end. This idea of choice is central to the concept of polymedia (REF): indeed, whereas people used to be constrained by technical and/or economic limitations, the present media ecosystem allows users to create for themselves personal repertoires of communication. We define a repertoire of communication as the fluid and mobile combinations a user can make with the equipment and / or services at his/ her disposal. Rather than addressing one equipment at the time, users in this research weave for themselves combinations of media that work best to achieve their purposes.

This respondent was asked to described the difference of uses between his different devices:

I have a tablet, a smartphone and a laptop which each have a precise use. The laptop for me is the more polyvalent tool and the most comfortable to use because the screen is bigger so I use for all my word documents and for Netflix also. (...). My tablet allows me to move a lot. I use it when I need my apps to look at itineraries, or find a restaurants or other stuffs. And my smartphone is purely for communication like WhatsApp or Messenger. I have the same apps on my table so sometimes I just go back and forth between the two like when I communicate with more than one person at the time then I'll use my tablet, but if it's a one-on-one conversation by SMS or via WhatsApp then I usually get my smartphone.

Male; 1st LS; {18-30 y.o.}; HE; Employed; In couple; No children.

This other respondent tells us the following:

I usually use my iPad if I want to Netflix. I have Netflix on my phone and I use it sometimes on my phone but I prefer watching on my iPad or on MacBook, the screen is bigger; but actually it depends what I'm doing and where I am. Like, for banking stuffs I will use more often my smartphone because I have my mobile banking app on it. Well I also have the mobile banking app on my computer but there I need the little device the bank gives and you have to put your card in it and put your code whereas on my smartphone all I need is a code, much simpler (laughs).

Female; 2nd LS {31-50 y.o.}; HE; Unemployed; In couple; No children.

While ownership of media equipment is influenced in this research by socio-economic status, we notice that age has an influence on ways in which respondents in this research access technology in a polymedia environment. While younger generations (between 35-50 years old) will generally combine a variety of equipment to access a diverse services, older generations (from 50 years old onwards) in this research, although possessing more than one device, generally prefer to stick to one equipment – usually the smartphone or the laptop. However, the fluidity of their digital practices is not impaired: although restricting themselves in their choice of equipment, they still manage to create their personal repertoires of communication by shifting fluidly between several services to achieve their desired (communicative) goals. This further contradicts the idea that a greater diversity of equipment inevitably leads to a greater diversity of online activities (van Deursen, 2018; Van Dijk, **REFS**):



So yes, actually I use my smartphone for a lot of things and it is making things much easier. For example I will use it to buy a ticket from the NMBS via mail and also manage my banking activities via my mobile banking app. What else? Well I do almost everything with it actually, even communicating with my children and grandchildren on WhatsApp.

Female; 3rd LS {51-70 y.o}; LE ; Retired ; In couple; Children not living at home.

So we have at home a desktop, a laptop, smartphones, actually my wife does, and I don't know what else (laughs). I mainly use the laptop because I am in charge of all the administrative and official stuffs at home, you see what I'm saying: I know I can perfectly certain pay bills with my phone but I don't do it. When bills are coming so I pay it with the laptop, that's easy. For example, for my retirement cheque, I can cash t via the website and check the details on the website. (pause). Of course, you also have all the pictures on the laptop, and it's not always that comfortable to look at pictures on my smartphone. And also to send emails I prefer the laptop.

Male; 3rd LS {51-70 y.o.}; ME; Retired; In couple; Children not living at home.

What these accounts essentially reveal is that, while certain devices are certainly better suited than other for particular uses (van Deursen & van Dijk, 2005), individuals in our research are less and less tied to specific equipment. Ultimately, the infrastructural level reveals how access to technology is experienced through what we term the 'omni presence' of services, that is to say the multiple channels through which a service can be reached: via smartphone, laptop, tablet, through or without Wi-Fi connection. The term 'omni' meaning 'every' or 'all' suggests the integration of multiple media and the creation of complex matrices of possible ways to achieve the desired outcomes. Put differently, the fact that services can be accessed from more or less of all forms of equipment allows users in this research the power to generate specific repertoires of communication. These repertoires, we hypothesise, are not limited in time and space but change according to social, political and/ or economic contexts. In that sense, contrary to the often static model of access presented in digital inequalities studies, the infrastructure level highlights that access to technology is far from linear or singular in a polymedia environment; rather, individuals' choices with regard to digital media are liquid and shifting, alternating from one medium to another, usually at the same time. As emphasized by the concept of polymedia (**REF**), people do not confine themselves to a single medium; instead, the fluid interplays between equipment and/ or services is at the heart of this shift in access. In a polymedia environment, these fluid interplays or combinations are ultimately more useful to grasp the concept of access and inequalities at large than the sole focus on the number of devices owned (**REFS: van Deursen & van Dijk, 2015?**). Moreover, they are informed as much by the technological evolutions of the present media ecology as by individuals' social arrangements; in other words, emotional and intimate registers underly the combination of equipment and/ or services chosen to achieve a particular goals.

b. The affective level

According to Madianou and Miller (2012), in the emerging environment of communicative opportunities that is polymedia, the choice of the medium shifts from technical and/ or economic concerns, to moral and emotional concerns. In a polymedia environment, users select within their personal repertoires of communication which medium is more or less appropriate to certain kinds or relationships: what cannot be achieved or said in an email will be delivered through instant messaging or webcam conversation. The affective level points thus to how respondents in this research manage their social relationships by exploiting the differences within the composite



structures of their personal repertoires of communication. This management is influenced at the same time by technical differences (e.g. one service allows the sending of pictures during a conversation), and by users' own interpretations of the appropriateness of a particular medium during a specific situation.

In this research we notice that respondents – age, gender and education taken into account - make a strong differentiation between the media used to communicate with distant social networks (e.g. colleagues) and the media used to communicate with close social networks (e.g. family members). Each of the medium used is endowed with a specific ideology or belief (Gershon, 2010) about how best to communicate a specific message. This belief regarding which medium is best suited to convey a particular message is noticeable for instance in the quote of the respondent below (Male; 2nd LS {31-50 y.o.}; HE; Employed; In couple; Children living at home) making a separate account e-mail account to talk with the family at large but having a specific channel on WhatsApp to contact his children: in his repertoire of communication, WhatsApp is the best service to contact his children while contact with extended family happens exclusively via mail, which allows him to detach himself from conversations in which he does not always want to take part. These media ideologies in turn, allow users to compartmentalize to which end each media within their repertoires of communication will be used.

So yes I usually use WhatsApp if I want to communicate with my children. They are teenagers and you can't call them or even SMS them, they say it's outdated and nobody does that anymore, so you with them I usually just WhatsApp. And then if we have a party with the family at large I will send invite via Mail rather than Messenger. It's true that for close family we have a separate group chat on WhatsApp but I don't really feel like participating sometimes so emails there are just fine. And then, yeah the children are in all sorts of activities outside of school so in my email I also have separate channels and email accounts for each of them too.

Male; 2nd LS {31-50 y.o.}; HE; Employed; In couple; Children living at home.

So family relations... My mom used to live abroad for her work so yes, technology did play an important role for us. We used to skype and chat on WhatsApp. We also used emails, at that time we had one mail adress for the both of us that was only to communicate with the whole family. (...). And like love relations it is only via Tinder, like a lot of people from my generations. I met a lot of people through the app, people that actually in everyday life I would never had met without the app and I really like it because you are no longer limited to meeting someone at the coffee shop next door or someone from your city.

Male; 1st LS {18-30 y.o.}; ME; Employed; Living alone; No children

When looking at interpersonal communication within close social circles, we notice in this research that some media become so ingrained in the unfolding of the everyday life, that they are often invoked in terms of affective or even intimate registers by the participants. These affective registers are perceived as providing a 'deeper attachment' or 'stronger bonds' with family members as certain features of a service encourage respondents to engage in more affective or intimate kinds of expressions in opposition to communication on another medium (Schultz & Baym, 2015). For instance, when asked how she manages her use of digital media for communicative purposes, this respondent (Female; 1st LS {18-30 y.o.}; HE; Employed; In couple; No children) revealed that work-related communication was mainly happening via email, and sometimes via SMS with close colleagues, while communication with the family and close friends occurred almost exclusively via WhatsApp.



I certainly notice another manner of communicating with people close to me, as compared to before when you had to SMS or call, which I do much less now that I use WhatsApp. So on WhatsApp I only have a group with my close friends and close family members and then separate conversations with each of them (...) and we certainly know much more about each other and I feel that we are growing even closer to each other than we were before because we are constantly sharing things in WhatsApp: like my niece passed her exams and there is a picture, or I ran a semi-marathon and I sent a video to the family group, so like that.

Female; 1st LS {18-30 y.o.}; HE; Employed; In couple; No children

With a large portion of her family living abroad, this other respondent (Female, 2nd LS {31-50}, LE, Unemployed, Living alone, Children living at home) used to call family members on the phone, but still felt unsatisfied because she could not see them. She recently discovered Skype and its camera feature; she explains below how this feature changed the way she communicates with her family:

So now with my family we are using Skype with the camera and we can see each other and it changes things so much, because before, on the phone we could hear each other but not see each other and now with the video on Skype we see each other and the thing I find quite nice with it is that it creates strong links, I mean even stronger links with the family because we can see each other and it is really something I like. Like, it is really not the same as just hearing each other voice, now we can see each other, if I want to show something, I don't know... I went to the hairdresser and I want to show my new cut, or just send pictures. So in that sense, I see a real positive evolution in my relationships and I don't think I could do without it today.

Female, 2nd LS {31-50}, LE, Unemployed, Living alone, Children living at home

These accounts again confirm that equipment has become secondary in importance. In fact, when describing the digital media they use to communicate, respondents in this research attribute affective qualities to the services used without ever making explicit connections to the equipment through which such services are being accessed. More importantly, the affective level shows that access to services is so tightly interwoven with how the everyday life unfolds that they have become in and of themselves a communicative act (**Madianou & Miller REF**): in choosing to send an email rather than a WhatsApp message, users in this research already express their communicative intents because such services are inextricably linked to how they manage their social relationships. Put differently, choosing one service instead of another already implies enacting a specific relationship (e.g. friendship, courtship etc.).

For digital inequality research the affective level highlights the fact that the social context matters: in a media-rich environment, accessing technology cannot be divorced from understanding the social relationships and social contexts within which said technology is used. As pointed out by Lawson-Mack (2001) overcoming inequalities in access and use of technologies implies recognizing the contexts in which digital technologies operate. Yet, very often in trying to explain why some people are less likely to fully engage with digital technologies, individual characteristics such as gender or income are taken as start and end point of the analysis (**Helsper, 2017**). Such approaches assume that these relatively stable characteristics are what drive ICTs' adoptions and, as a result, forsake the study of the everyday. To be clear, socioeconomic characteristics still play a role in access to technology; however we argue that these macro-structural constraints should be studied hand-in-hand with a qualitative focus on everyday digital practices of users.



B. From attitudes to needs

'Prior to physical access, comes the wish to have a computer and to be connected to the Internet. Many of those who remain on the 'wrong' side of the digital divide have motivational problems.'
Van Dijk, 2012:62

The first implication of the shift in access is that motivational access is not solely spurred by attitudes or 'motivational problems'; rather, it is contingent to individuals' needs. According to van Dijk (**REFs**), attitudes, especially if they are positive, are the first step to access technology while negative attitudes decrease the likelihood that a user will access technology. Put simply, positive attitudes are a strong predictor of internet use and a prerequisite to access technology (Reisdorf & Groselj, 2017; Vroman & Lysack, 2014; van Dijk, 2005). In that sense, failing to use and/ or access technologies on the one hand is normatively predicated upon having the 'wrong' attitude; on the other hand, such assertion implicitly reports the responsibility of this 'failure' on the individual without ever trying to understand what said user seeks to draw out from his/her access to technology. While we agree with the premise according to which without actual incentives there will be no physical access (van Deursen & van Dijk, 2015), we argue against the idea that this motivation or incentive is solely shaped by positive or negative attitudes towards technology. Rather, we contend that it is the needs – and more importantly the extent to which these needs can be answered – and not the attitudes that predict access to technology. Indeed, as developed by the theory of polymedia (**REF**) and confirmed by our research, users access and use technology first and foremost to meet specific emotional and communicative needs - whether it be the need to find a job or have a private conversation with a spouse.

The respondent below (Female; 3rd LS {51-70 y.o.}; ME; Retired; In couple; Children not living at home) recalls the first time she ever used a computer. Her daughter had recently moved abroad for her studies and she needed to stay in regular contact with her despite the distance. Thus, she bought a computer so they could keep interacting with each other.

So for me, my trigger was when our Martine moved to the US. So she left to live on the other side of the globe (laughs), well at the time this is how it felt (laughs), and so yes, we had to have a computer at home to stay in contact because I had already one at work, but it was just for work, it had nothing to do with home but when she left my husband and I said to each other 'well we need to do something for her so we can send her pictures from us and she can send us pictures from all the places she is visiting'. I mean, this was a long time ago he, for me even more because my daughter was born in 71. At that time, the computer was not what it is now, and it was also not easy for us, but yeah...

Female; 3rd LS {51-70 y.o.}; ME; Retired; In couple; Children not living at home.

This other respondent (Male; 2nd LS {31-50 y.o.}; LE; Unemployed; Living alone; No children) admits having always had a very negative perception of technology because of his personal political convictions. However, after a serious back injury he had to find a less manual form of labour; with the increasing digitization of society this change in career meant learning how to use digital tools. Hence, despite his negative attitudes towards technology, it is the need of this respondent, namely the need to find a job, that triggered his decision to follow computer lessons:

I am almost 50 and I am thinking of finding a job that will be less physical than the one I was doing previously. Of course, this means using technology and I have the opportunity here at the learning center. I find it quite ok, because at almost 50 years old I was starting to think I was an illiterate, all I could do was put music on my phone. Of course, my political



convictions still go against all this, I mean the abuses that are coming with all this technology, but today to find a job, it is quite useful.

Male; 2nd LS {31-50 y.o.}; LE; Unemployed; Living alone; No children.

Henceforth, these quotes show that motivation to access and use technology does not appear out of thin air, nor can it be solely attributed to attitudes. In fact, doing so erases the complex nature of life in the digital society while constructing an image of technology based on the benefits it brings to some while overlooking the everyday needs and lives of others (Helsper, 2017). Motivational access has to be connected to the everyday needs of individuals; this is even more true in polymedia environment where the medium chosen not only structures the communication, but equally implies the intent or need a user wishes to fulfill. At a theoretical level the concept of polymedia highlights the fact that overcoming mechanisms of in-exclusion entails that digital inequalities should not solely be understood from the standpoints of deficits or barriers; instead, these deficits and barriers should be explored conjointly with a research agenda dedicated to understanding the needs of individuals.

C. *Digital fluidity*

The second implication of the shift in access regards the necessity to develop digital skills going beyond the acquisition of specific competencies and moving towards developing a fluidity of use across a vast array of media. We thus introduce the concept of *digital fluidity* as a metaskill necessary for life in a polymedia environment. We define this metaskill as the ability to move fluidly between media. In other words, digital fluidity is technology made intuitive and speaks of this easiness of flow, in and out of services that allow people to cumulate knowledge and aggregate sophisticated sets of skills that they can in turn transfer to other media. We content that by allowing individuals to develop an intuitive understanding of the technology they encounter, digital fluidity can help people deal with the abstractness and the non-perceivable properties of the digital.

As accurately pointed out by Eynon and Geniets (2015), learning to use and access digital technology is embedded within everyday needs and practices. Moreover, as mentioned by van Deursen (2018), policies and training oriented towards the development of digital skills very often focus more on the skills linked to activities in the economic market (e.g. programming skills), and do not pay enough attention to the skills needed to function in the everyday life. Therefore, as access in a polymedia environment move from equipment to services, teaching digital skills should not solely revolve around learning how to use Microsoft 2008 on a computer, or developing the next generations of programmers; instead, access in a polymedia environment suggests learning how to use the different services needed to achieve particular goals (e.g. WhatsApp for communication with close social network, mobile banking, etc.) accross a variety of equipment. This conclusion is elicited by previous research with civil society organisations (**REFs**) working in the digital inclusion sector. In most of these organisations, digital skills trainings are developed around the use of a specific equipment, usually a laptop or a tablet. Yet, research (**REFs**) has shown that as soon as a training is over, people are again in need to be tutored because the interface has changed for instance, as illustrated by the quote below:

I followed the classes on the computer and then another one on using the smartphone, and then another one on how to take picture but I have to go back and take the classes again because something has changed on my smartphone – an update apparently – and all I learnt is gone.

Male; 3rd LS {51-70 y.o.}; ME; Retired; In couple; Children not living at home



As such trainings with ICTs focused on the use of a specific equipment often means that learners are unable or have difficulties to intuitively use their digital tools once an update has been made. However, at the pace at which technological innovations are happening, it is not likely that people will even have time to refresh their skills before a new update is made.

Digital fluidity speaks thus not of the rapidity of execution but puts an emphasis on the dynamism of the learning process within a constantly changing environment. For digital inequality research, such metaskill forces us to rethink not only *what* people learn, but more importantly *how* people learn. As access moves from equipment to services, becoming a better learner is increasingly more important than learning the 'right' things.

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Des recherches en éducation au domaine des technologies éducatives : quelles dynamiques d'appropriation des approches critiques?

Critical perspectives, epistemology, educational research, technology.

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Résumé

Le présent article vise à contribuer au repérage des sources et des objets d'étude critiques dans les travaux sur les technologies éducatives en comparant leur dynamique d'appropriation des approches critiques à celle à l'œuvre au sein du champ dans lequel ils s'inscrivent : les sciences de l'éducation. L'article montre que les recherches en éducation possèdent un ancrage critique important depuis leur institutionnalisation. Par contraste, les travaux sur les technologies éducatives semblent davantage avoir mobilisé implicitement plusieurs formes de critique jusqu'à présent sans viser pour autant à baliser un programme de recherche critique aux cadres épistémologiques cohérents..

Mots-clés

Perspectives critiques, épistémologie
recherches en éducation, technologies.

Abstract

This article aims at identifying critical sources and issues in educational technologies research by comparing the way they use critical perspective to the way such approach are used in the field of research within they are embedded: the sciences of education. The article shows that educational research has a critical foundation since its institutionalization. In contrast, research on educational technologies seems to have implicitly practiced critical posture without aiming to set out a critical research program with coherent epistemological frameworks.

Keywords

Critical perspectives, epistemology, educational research, technology.

Introduction

Durant les dernières décennies, des travaux scientifiques à vocation critique ont jalonné l'étude des technologies en éducation¹ (Dieuzeide, 1982; Fichez, 1998; Miège, 2000; Moeglin, 2010) dans l'espace francophone et dans l'espace anglophone (Beynon et Mackay, 1989; Cuban, 2001; Noble, 1998; Selwyn, 2015). Néanmoins, ces travaux, entrepris par un nombre limité de chercheurs, n'ont pas abouti à l'établissement d'une tradition critique aux contours bien balisés dans le domaine. On peut s'étonner que les technologies en éducation n'aient pas fait l'objet d'une attention critique plus soutenue dans la mesure où elles se situent à l'intersection de deux champs de recherche disposant chacun d'une tradition critique bien établie : d'une part, les sciences de l'éducation, qui ont peu appliqué la critique au cas des technologies et, d'autre part, les théories critiques des technologies, qui ont peu été mobilisées dans les recherches en éducation.

Depuis une dizaine d'années, les approches critiques dans le domaine suscitent toutefois davantage d'intérêt. Celui-ci est notamment perceptible à travers diverses initiatives de structuration théorique et humaine, auquel ce numéro thématique tente de participer. La relative dispersion et la non-cumulativité des recherches sur les technologies à visée éducative en sciences humaines et sociales ne contribuent toutefois pas à favoriser la constitution d'un programme de recherche critique aux cadres théoriques et épistémologiques cohérents (Stockless, 2018).

Cet article est fondé sur le postulat selon lequel les travaux critiques portant sur les technologies en éducation s'approprient plus ou moins implicitement et indistinctement plusieurs formes de critique, qui ne correspondent pas nécessairement aux façons

dont l'approche critique s'est déployée dans le champ de recherches auquel ils appartiennent pourtant : les sciences de l'éducation.

Dès lors, cet article vise à repérer les sources et les objets d'étude critiques dans les travaux sur les technologies éducatives en vue de contribuer à la structuration de ce champ au sein de la production scientifique francophone.

Pour ce faire, on pointe d'abord quelques traits communs majeurs aux approches critiques en sciences sociales, au-delà de la pluralité des courants qui s'en revendiquent (I). On identifie ensuite la façon dont les recherches en éducation mobilisent ces principes (II) avant d'analyser, plus spécifiquement, leurs formes d'appropriation par les travaux sur les technologies en éducation (III). Ce bref détour par les recherches en éducation montre que les travaux dans le domaine des technologies en éducation n'empruntent pas nécessairement des voies critiques analogues à celles des sciences de l'éducation.

L'objectif n'est pas de donner un portrait exhaustif de l'ensemble des travaux critiques qui ont jalonné l'histoire des deux champs de recherche. Il s'agit plutôt de brosser à grands traits la manière dont les deux ensembles de travaux ont globalement incorporé les formes de critique et les ont adaptées aux enjeux relatifs à leurs propres objets d'investigation. Aussi, l'article se base-t-il sur un corpus de textes visant explicitement à contribuer à la structuration « épistémo-théorique » des deux champs concernés, en particulier concernant la dimension critique. Au vu de cet objectif n'ont été retenus que les textes témoignant, sinon d'une dimension programmatique explicite, du moins d'une portée théorique et/ou réflexive sur une problématique en lien avec les approches critiques. Les travaux empiriques, les thèses et les mémoires ainsi que les comptes rendus et les résumés de lecture ont été d'emblée exclus de la sélection.

Au-delà des travaux déjà connus par les auteurs du fait de leur autorité scientifique en la matière dans les champs concernés, les textes de référence ont été identifiés par le biais de moteurs de recherche d'abord généralistes (Google Scholar essentiellement) puis spécialisés (ERIC, Francis, Cairn.info² pour les textes francophones, notamment). Bien que ces portails numériques de ressources scientifiques ne proposent pas un accès exhaustif aux publications scientifiques, la recherche bibliographique mise en œuvre a fait l'objet d'une démarche réflexive et itérative tant au niveau des requêtes effectuées que de l'identification des axes structurants.

De fait, les requêtes ont été menées à partir de mots-clés en lien avec la dimension critique : « approche critique en éducation », « critique et recherche en éducation », « perspective critique, technologies/numérique et éducation » et leur équivalent en langue anglaise. Les documents identifiés à cette étape ont fait l'objet d'une lecture rapide afin de s'assurer qu'ils caderaient bien avec problématique et qu'ils respectaient les critères d'inclusion ou d'exclusion. À partir de cette première sélection, une démarche similaire a été effectuée de façon plus restreinte au sein de quelques revues spécialisées apparaissant, au terme de cette première lecture, comme jouant un rôle majeur dans la diffusion des thématiques critiques (la revue *Éducation et sociétés*, notamment). L'exploration des bibliographies a permis d'identifier des ressources hors de ces bouquets numériques, lesquelles ont été intégrées le cas échéant. L'exhaustivité étant impossible, c'est la complétude et la représentativité qui ont été visées par un principe de saturation. Le fait que les trois auteurs appartiennent à des aires géographiques et scientifiques différentes contribue à cette vigilance.

Sur base des caractéristiques propres aux approches critiques identifiées par le biais de travaux visant explicitement à dégager les attendus des postures critiques en sciences sociales (voir section 1), les textes sélectionnés ont fait l'objet d'un premier classement thématique. Celui-ci a ensuite été complété par une analyse thématique ouverte consistant à identifier d'autres caractéristiques critiques qui émergeaient de façon récurrente au fil de la lecture des textes au sein des deux champs concernés.

La mobilisation de textes à la fois francophones et anglo-saxons n'a pas vocation à comparer la manière dont la réflexion critique est posée dans chacune de ces traditions de recherche. Elle vise plutôt à donner un aperçu plus complet de l'état actuel des perspectives critiques sur le numérique en éducation étant donné le faible nombre de travaux revendiquant une approche explicitement critique sur cette question du côté francophone.

Approches critiques : de quoi parle-t-on?

Depuis quelques années, le label « critique » semble jouir d'une certaine popularité au sein des recherches sur les technologies en éducation. Loin de constituer un programme au sens strict du terme tant les courants de recherche en sciences sociales convoquant la critique sont pluriels (théorie critique, sociologie critique de la domination, sociologie pragmatique de la critique), les approches critiques renvoient à des territoires de recherche différents partageant un air de famille (De Munck, 2011). Au-delà de la diversité des courants de recherche qui viennent, chacun à leur manière, alimenter le questionnement critique sur les phénomènes de société, cette section vise à identifier quelques principes majeurs qui fondent le propre des approches critiques en sciences sociales.

Un écueil courant consiste à amalgamer deux conceptions distinctes de la critique (De Munck, 2011). Dans sa première acception, la critique consiste à problématiser le monde social par le biais d'une démarche de dénaturalisation des activités sociales des individus. Il s'agit donc d'une opération de dévoilement des logiques qui se logent au creux de ce qui paraît normal et évident. Ce geste critique est dès lors inhérent à toute démarche en sciences sociales.

Loin de récuser cette conception technique de la critique, plusieurs chercheurs (Corcuff, 2012; Granjon, 2015) invitent à ne pas la confondre avec les travaux critiques au sens non générique du terme. Ceux-ci visent, outre une démarche épistémologique indispensable d'explication et de compréhension du réel – inhérente à toute étude scientifique – à évaluer (formuler un jugement sur l'ordre social) et à transformer (soutenir le changement social) la société pour contribuer à l'émancipation de tous (De Munck, 2011).

En visant à annexer une démarche évaluative aux tâches de description et de compréhension du monde social, les travaux critiques ont un rapport spécifique à la production de connaissances, que l'on peut qualifier d'objectivité engagée. Ils défendent l'idée d'un travail scientifique d'objectivation de la réalité sociale basé sur des valeurs explicitement énoncées et assumées. Il ne s'agit pas de nier la rigueur scientifique, mais de reconnaître qu'aucune activité scientifique n'est neutre sur le plan normatif. Ce positionnement récuse dès lors l'idée d'une rupture nette entre jugements de fait et jugements de valeur, et invite les chercheurs à être attentifs aux conditions et aux valeurs qui sous-tendent la production des savoirs scientifiques. Sous la condition d'une solide démarche scientifique empirico-théorique, l'opération d'évaluation critique de la société peut alors mener à la troisième dimension constitutive

d'une démarche critique : celle qui touche à sa fonction de transformation sociale. C'est dans cet esprit que Boltanski (2009) évoque la nécessité de « donner des armes » aux acteurs sociaux.

Ces positionnements à la fois épistémologiques, normatifs et politiques ont une incidence sur le choix des objets d'étude. Les travaux pleinement critiques portent leur attention sur les questions de pouvoir, de domination, d'idéologies, d'inégalités et d'injustice sociale dans tous les domaines de la société. À l'inverse d'une perspective positiviste considérant les faits sociaux comme des « choses naturelles », ils partent du principe qu'ils ont une épaisseur sociohistorique qui explique leurs modalités actuelles (Granjon, 2015). Dans cette optique, les traits actualisés des savoirs, des discours, des pratiques et des représentations sociales sont considérés comme le résultat d'un processus de co-construction de rapports de force entre acteurs socio-historiquement situés. Loin d'être neutres, les décisions qui président aux choix sociaux sont donc porteuses de valeurs et d'intérêts particuliers qu'une approche de la société en termes de rapport social (Pfefferkorn, 2007) permet de révéler.

En sciences humaines et sociales, la volonté d'inscrire l'analyse des situations sociales dans une perspective sociétale plus large n'est que modeste étant donné la nécessité d'arrimer les recherches à une démarche d'enquête empirique circonscrite sur le plan spatio-temporel. Néanmoins, cette perspective a pour intérêt majeur de viser à mettre au jour les formes de reproduction du monde social que l'étude trop isolée des phénomènes sociaux laisse sinon largement dans l'ombre.

Ces analyses empiriques ne se limitent en ce sens pas à la description des conduites et des expériences individuelles hétérogènes, mais s'attachent au contraire à réinscrire l'étude des phénomènes micro et subjectifs dans une structure sociale objective plus large qui en conditionne une partie de leurs traits actuels.

Approche critique en éducation : entre appropriation et renouvellement

Cette partie vise à pointer la façon dont les recherches en éducation se sont approprié les principes des approches critiques identifiés ci-dessus. Après un bref regard historique sur l'évolution des approches critiques dans le domaine, on montre que celles-ci ont progressivement été mobilisées pour documenter des objets de recherches toujours plus nombreux : de la sociologie de l'éducation à l'étude des situations d'enseignement-apprentissage en didactique, les problématiques traitées au prisme des questionnements critiques concernent à la fois les institutions éducatives, les acteurs éducatifs, les questions relevant de l'enseignement et de l'apprentissage.

Bref regard historique

La recherche en éducation est protéiforme. Elle est tant menée par des chercheurs en sciences de l'éducation qu'en dehors, lesquels mobilisent leurs cadres théoriques disciplinaires pour interroger les phénomènes éducatifs.

En France, les approches critiques ont initialement irrigué le champ de la sociologie de l'éducation dont *la sociologie critique de la domination* de Pierre Bourdieu constitue la matrice théorique principale. À partir du paradigme de la reproduction des inégalités, un pan de recherches s'est déployé : reproduction des élites et de la classe encadrante que sont les enseignants, reproduction des inégalités sociales pour

les élèves. Les questionnements critiques dépassent progressivement le dévoilement des inégalités entretenues par les systèmes scolaires pour interroger la pertinence de l'organisation de l'éducation : choix curriculaires, modes d'enseignement et d'apprentissage (Sauvé, 1997). Ces travaux, visant à montrer que les savoirs enseignés sont loin d'être neutres, mais constituent, au contraire, le résultat de rapports de pouvoir (entre disciplines scolaires, associations professionnelles), donnent lieu à une approche de la fabrique des savoirs scolaires (Harlé, 2010).

En pointant les mécanismes sociaux générateurs des modalités des savoirs scolaires, cette perspective, au carrefour de la sociologie de l'éducation et de la didactique, s'inscrit dans une approche critique soucieuse de saisir les structures qui génèrent les traits actualisés de phénomènes sociaux inégalitaires.

L'émergence de la préoccupation de l'acteur et de ses logiques d'action (Lahire, 1998), de sa difficulté à être dans une société postmoderne (Ehrenberg, 1995) a contribué à déplacer les questionnements des recherches vers des approches plus micro et ethnographiques centrées sur les acteurs en situation. L'objectif est de documenter ce qui se passe concrètement au sein des murs de l'institution scolaire (Barrère, 2002; Bonnery, 2007) et en dehors (Le Pape et Van Zanten, 2009). Cet infléchissement épistémologique et théorique n'est pas propre aux recherches en éducation, mais constitue un mouvement de fond repérable dans l'ensemble des sciences sociales; il correspond à un glissement du paradigme de la domination vers le paradigme de l'activité (Voirol, 2014). Celui-ci recoupe le tournant pragmatique dans lequel s'inscrit la *sociologique pragmatique de la critique* (Boltanski, 2009) œuvrant au redéploiement d'une sociologie critique à partir du point de vue de l'acteur en situation.

Au sein des recherches en éducation ainsi que dans les didactiques disciplinaires³, ce tournant pragmatique de la critique est soutenu notamment par la diffusion croissante des travaux de Dewey dans les publications pédagogiques. Il s'agit de renouveler l'approche de l'activité enseignante pour lutter contre les inégalités et donner à l'individu le pouvoir d'agir dans des finalités démocratiques. Fondée sur l'expérience comme nécessaire à la démocratie, l'école est, selon Dewey, prise dans un paradoxe fructueux entre la nécessité de maintenir et de transmettre ce qui a été identifié comme savoirs, normes, éléments culturels et sociaux et la nécessité de contribuer à la réformation de la société par la mise en place d'interactions entre les élèves et le milieu éducatif. Ces deux pôles doivent être en interaction sous peine de développer des formes de servilité et des rapports de domination (Zask, 2001). Cette approche permet de dépasser la frustration de l'impuissance des acteurs de l'éducation devant le dévoilement des rapports de domination à l'œuvre et de s'inscrire dans des finalités politiques et morales en adéquation avec les enjeux démocratiques propres à l'éducation (Panait et Teodoro, 2017). Elle n'interroge toutefois pas les modes de production des phénomènes sociaux par les structures éducatives et passe, en cela, à côté d'une approche critique.

Thématiques critiques dans les recherches en éducation

L'éducation aux prises avec les logiques économiques et industrielles

Dans le contexte de mondialisation et de libéralisme économique, les enjeux économiques apparaissent comme des facteurs de remise en cause des objectifs de justice sociale et de lutte contre les inégalités, éléments pourtant encore présents dans les textes de politique éducative nationale. Ils suscitent des travaux sur les discours de légitimation à l'œuvre en particulier concernant les compétences comme

cadre pour la formation des individus, l'injonction à l'efficacité économique des systèmes éducatifs et l'évaluation dans toutes les sphères éducatives.

L'évaluation

L'évaluation des élèves et des professionnels, résultat de l'individualisation du travail et de la responsabilité de son efficacité, nie sa part collective et le poids de l'organisation du travail. Les logiques économiques internationales sont remises en question à l'aune de leur impact sur les processus de subjectivation des acteurs éducatifs et sur les trajectoires professionnelles. C'est là l'apport de l'analyse du travail (Théminal et Le Guern, 2018), de la clinique de l'activité tout comme de l'approche psychanalytique (Bodergat et Buznic-Bourgeacq, 2015) dans une perspective pluridisciplinaire qui permet de nourrir la théorie critique.

La réflexivité

La réflexivité qui s'est constituée comme un paradigme pour la formation des enseignants est issue de la conceptualisation de la construction identitaire entre subjectivité et expérience sociale. L'individu doit élaborer un savoir sur soi et un pouvoir pour l'action. De cet objectif omniprésent dans la formation des enseignants aujourd'hui découle un ensemble d'éléments normatifs langagiers : le pouvoir d'action et la notion de posture professionnelle, par exemple. Si l'on considère l'individu comme le résultat d'une entreprise d'intériorisation de normes construites sociohistoriquement et que toute réflexivité émerge dans une relation à l'autre, la réflexivité apparaît comme un élément de la production normative des institutions.

L'école comme cadre normatif

La normativité des cadres de l'école est l'objet persistant des travaux de Duru-Bellat et Van Zanten (2009). Elles font le point sur les résultats d'enquêtes qui identifient les écarts entre les attentes institutionnelles, les discours et les pratiques, les trajectoires scolaires et professionnelles des acteurs de l'école, ce qui contribue à dégager les processus normatifs à l'œuvre dans les rapports sociaux de genre, les formes scolaires et les pratiques culturelles. Ces objets posent ainsi à nouveau les questions de rapport de domination, non plus d'abord à travers un rapport de classe, mais sur la base d'identités multiformes.

Deux polarisations essentielles : les élèves et les enseignants

D'autres travaux ancrés en didactique utilisent les apports des approches critiques en sociologie de l'éducation pour élargir la question de l'enseignement et de l'apprentissage.

La massification de l'enseignement, ses effets ainsi que les difficultés rencontrées par les familles populaires sont des questionnements qui nourrissent des approches didactiques soucieuses de considérer les élèves comme individus et sujets, en s'appuyant sur les recherches en sociologie de l'école et sur la question des variations socioculturelles. Un apport important est la prise en compte des enjeux situés en contexte extrascolaire. Cette ouverture s'appuie sur les apports de la sociologie des inégalités (Bonnery, 2007) ouvrant l'approche critique à la réflexion sur les contenus scolaires.

Par ailleurs, les travaux sur la professionnalisation s'intéressent au travail réel des enseignants et se nourrissent d'autres disciplines pour mieux penser la complexité des situations investiguées. Le métier

d'enseignant, longtemps considéré comme un métier à part, est analysé à la lumière des travaux en clinique de l'activité et en didactique (Bodergat et Buznic-Bourgeacq, 2015). La dimension critique apparaît ici en mobilisant la sociologie des épreuves concernant la souffrance au travail et les contraintes issues des contextes d'enseignement en particulier (Théminal et Le Guern, 2018).

Vers des recherches critiques renouvelées en éducation

Les évolutions des formes et des activités relevant de l'éducation depuis une trentaine d'années mènent à un renouvellement nécessaire de l'approche critique.

L'internationalisation des questions éducatives, conjointe à l'autonomisation des établissements scolaires et à la réorganisation des collectivités locales, contribue à rebattre les cartes des processus d'actualisation des structures génératrices des phénomènes sociaux. Dans ce contexte, il s'agit de saisir concrètement les modalités de transformation des dynamiques institutionnelles qui concourent aux processus actuels de légitimation des inégalités sociales face au système d'éducation par le prisme d'une articulation d'échelles d'analyse variées, du local à l'international. De telles perspectives impliquent d'être interdisciplinaires en s'appuyant sur d'autres sciences sociales, comme la sociologie des organisations et la sociologie politique.

Par ailleurs, l'enjeu actuel est aussi de parvenir à dépasser les deux modèles du dévoilement et de l'émancipation, qui semblent avoir atteint leurs limites (Martuccelli, 2005). Face au développement de l'indifférence devant la dénonciation et de compétences de réflexivité par les acteurs, le projet critique se déplacerait vers l'étude des processus de construction d'équilibre entre le maintien de la domination et le travail réflexif des acteurs, dans une reconfiguration des professionnalités et des collectifs enseignants, par exemple (Malet, 2013). Ce projet d'une *sociologie pragmatique de la critique* trouve notamment sa résonance dans le contexte scolaire au sein des travaux portant sur la reprobératation de thématiques scolaires, comme l'ouverture de l'école, la forme scolaire et la justice scolaire (Derouet et Derouet-Besson, 2009). Si certains enseignants se saisissent eux-mêmes de ces préoccupations pour forger une pensée critique, à titre individuel ou collectif (Robert et Garnier, 2015), la pertinence d'une sociologie critique de l'éducation à la hauteur des enjeux contemporains, liés à une société en réseaux et à des productions discursives œuvrant pour l'actualisation des structures de pouvoir et de domination, reste essentielle.

Approches critiques des technologies en éducation : une appropriation en cours

À la suite de la description de quelques axes constitutifs des approches critiques (section 1) et à leur forme d'appropriation dans les recherches en éducation (section 2), cette section vise à donner un aperçu du degré et de la forme de leur mobilisation dans le domaine spécifique des technologies en éducation.

Par contraste avec les recherches en éducation, qui ont contribué très tôt à une dynamique d'appropriation et de renouvellement des approches critiques en sciences sociales, les études sur les technologies éducatives ont moins cherché à formaliser la posture critique. Bien que les perspectives critiques connaissent un regain d'intérêt dans le champ francophone ces dernières années (Collin, Guichon et Ntebuse, 2015), celles-ci semblent encore en cours de structuration. Pour cette raison, la

littérature francophone sur cette question est relativement limitée, ce qui explique pourquoi nous avons également pris en considération les travaux anglophones dans cette troisième section. En procédant ainsi, l'idée n'est pas de comparer les littératures francophone et anglophones, mais de donner un aperçu plus complet de l'état actuel des perspectives critiques sur le numérique en éducation; aperçu qui aurait été relativement dépouillé si l'on s'en était uniquement tenu à la littérature francophone.

Critiquer les limites des études sur les technologies éducatives : prémissse à la structuration d'un projet de recherche critique

Dans l'ensemble, les travaux scientifiques dans le domaine semblent davantage viser à pointer les limites des recherches actuelles qu'à proposer explicitement un programme de recherche critique.

De fait, nombreux sont ceux qui attirent l'attention sur les limites du cadre de pensée dominant dans lequel s'inscrit l'intégration des technologies en éducation (sur le plan scientifique, politique et pratique). Ils convergent vers le constat d'une théorisation insuffisante de la relation entre technologie et éducation (Albero et Thibault, 2009; Chaptal, 2003; Oliver, 2011). La critique majeure repose sur l'idée que l'analyse des technologies en éducation serait grevée par des conceptions simplistes et idéologiquement biaisées du rapport entre technologies et acteurs éducatifs. Ces biais ont principalement trait à la conception technodéterministe selon laquelle les technologies possèdent des propriétés éducatives intrinsèques, contribuant ainsi *de facto* à améliorer l'efficacité de l'enseignement et de l'apprentissage (Collin et Karsenti, 2013).

La critique d'une conception linéaire et mécanique des effets des technologies sur l'acte éducatif n'est pas neuve. Jacquinot (1985) pointait déjà la survalorisation des technologies comme moteur du progrès pédagogique. Le discours technodéterministe étant réactivé à chaque apparition d'une nouvelle technologie éducative, cette position critique l'est aussi. Elle semble aujourd'hui partagée par la plupart des chercheurs du domaine et étayée par de nombreux résultats empiriques concernant les effets de la technologie sur l'éducation. Toutefois, elle peine à se faire entendre dans le champ politique et médiatique face au discours technodéterministe dont le simplisme continue de s'imposer avec la force de l'évidence.

La simple dénonciation des discours mécanistes en la matière, stérile pour la recherche, permet cependant de fonder la pertinence d'engager des pistes d'analyse alternatives, contextualisées et anthropocentrée des processus d'appropriation des technologies dans diverses configurations pédagogiques. L'enjeu est, comme le pointe Albero (2018, citée dans Stockless, 2018, p. 114), « de proposer des analyses théoriquement et empiriquement étayées, prêtes à courir le risque de la position *critique* parce qu'elles visent à rendre compte de ce qu'est l'activité humaine dans sa réalité ordinaire ».

Cet effort critique d'ordre méthodologique, propre à la plupart des travaux en sciences sociales, même à ceux qui n'adhèrent pas explicitement aux principes critiques établis en amont, constitue une étape préliminaire indispensable à l'établissement d'un projet de recherche pleinement critique. Celui-ci a l'ambition de compléter la démarche de description et de compréhension des mécanismes d'intégration des technologies éducatives en contexte, par une démarche d'évaluation de ces processus, dans leur forme actuelle, à l'aune de leur plus ou moins grande contribution au mouvement de démocratisation scolaire. Dans cette perspective, loin d'être neutres, les modalités de conception, d'implantation et

d'appropriation des technologies éducatives sont envisagées comme un ensemble de traits actualisés de rapports sociaux inégalitaires, d'où la nécessité d'inscrire l'analyse de la technologisation des activités éducatives dans le contexte socioéconomique plus large duquel émerge ce mouvement.

L'émergence d'un projet critique : un paysage bigarré

Récemment, certains travaux (Collin et al., 2015; Papendieck, 2018; Selwyn, 2015) invitent à poser les jalons d'une programmation critique dans le champ des technologies en éducation. Toutefois, le caractère ambigu et mouvant de toute démarche critique semble parfois introduire une confusion quant aux implications épistémologiques et analytiques propres à chaque registre critique; il n'est dès lors pas rare de constater des travaux basculer indistinctement d'un type d'argumentaire critique à l'autre.

Par ailleurs, cet état de la posture critique dans le domaine mène les chercheurs à traiter de façon relativement inégale les thématiques emblématiques des approches critiques. De fait, certains objets d'étude semblent bien établis au sein du champ alors que d'autres apparaissent en voie d'appropriation ou peu appréhendés. Ces constats procèdent sans doute du mouvement de structuration en cours et pointent la nécessité de poursuivre l'exercice de clarification épistémologique de la notion de critique au sein du champ. Dans les lignes qui suivent, nous donnons trois exemples, qui représentent autant de cas de figure témoignant d'une structuration inégale des approches critiques des technologies en éducation.

Une thématique critique établie : l'industrialisation de l'éducation et de la formation

L'industrialisation de l'éducation et de la formation constitue une thématique bien établie au sein des recherches critiques du domaine. Elle fait d'ailleurs écho à certaines préoccupations travaillées par les approches critiques en sciences de l'éducation.

Guillemet (2004) brosse l'évolution de la thématique à l'échelle internationale, en particulier concernant la formation à distance. Dans l'espace francophone, les travaux de Dieuzeide (1982), mais davantage ceux de Moeglin (2010) et de Miège (2000) ont considérablement alimenté la thématique dans une perspective critique. Ils ont contribué à mettre au jour le rôle que joue l'intégration des technologies en éducation comme vecteur d'industrialisation du secteur ainsi que les rapports de domination qui se sont construits dans ce cadre entre les différents acteurs en présence.

Cette thématique semble s'être quelque peu essoufflée ces dernières années en raison de son manque d'actualisation par rapport aux évolutions éducatives récentes. Elle n'en reste pas moins pertinente pour appréhender les mutations récentes que connaît l'éducation sous l'effet des technologies dites numériques (Guillemet, 2004); elle mériterait, à ce titre, d'être réactivée dans l'espace francophone.

L'intérêt pour la question semble en revanche davantage se maintenir dans l'espace anglophone. En témoigne par exemple le projet en cours Education Technology Industry Network mené par Watters ainsi que les travaux de Hall (2011) sur l'industrialisation de l'enseignement supérieur. Elle est aussi convoquée pour appréhender certaines innovations technologiques en éducation, comme les Massive Open Online Courses (MOOC) (Dumitrica, 2017; Hall, 2015). Bien qu'il soit difficile d'expliquer cet écart entre la littérature francophone et anglophone, peut-être peut-on avancer que les systèmes

éducatifs anglophones, parce qu'ils sont moins régulés, disposent d'une marge d'initiative plus grande que les systèmes éducatifs francophones, ce qui augmente d'autant les risques d'industrialisation de l'éducation et de la formation et les préoccupations scientifiques qui y sont liées.

Une thématique emblématique des approches critiques, peinant à être adaptée à l'éducation : les inégalités numériques

Les inégalités numériques en éducation constituent un objet d'étude emblématique d'un programme de recherche pleinement critique. Pour autant, la dynamique d'appropriation par les chercheurs du domaine semble largement inachevée. Cette problématique se situe à l'intersection de deux préoccupations scientifiques : les inégalités scolaires, largement analysées en sciences de l'éducation mais qui ont peu traité des technologies, d'une part, et les inégalités dites numériques, étudiées en sciences de l'information et de la communication et en sociologie, mais qui ont peu fait l'objet de recherches en éducation. L'enjeu consiste à spécifier la problématique des inégalités numériques aux problématiques éducatives, tout en l'arrimant à celle des inégalités scolaires. Actuellement, le premier terme de l'équation – spécifier les inégalités numériques aux enjeux propres à l'éducation – reste en grande partie à effectuer.

De fait, plusieurs recherches (Gire et Granjon, 2012; Mercklé et Octobre, 2012) sur les inégalités numériques parmi les jeunes d'âge scolaire pointent l'existence de disparités en termes d'accès, de compétences, d'usages et d'intérêt à l'égard des technologies au quotidien en fonction du milieu social d'appartenance des jeunes. Ces constats ne sont pour autant pas de nature éducative et la question des inégalités numériques reste en grande partie à problématiser en regard des enjeux propres à l'éducation et en enseignement. Dans cette optique il s'agit d'examiner : (1) en quoi les inégalités numériques en contexte extrascolaire viennent percer les usages en contexte scolaire; (2) quelles sont les implications des inégalités numériques sur le parcours éducatif des apprenants et les conditions de travail des enseignants; (3) à quelles conditions les interventions scolaires peuvent contribuer à remédier à ces formes réactualisées d'inégalités sociales et favoriser ainsi une plus grande équité de l'enseignement.

Une thématique propre à un projet de recherche critique, mais peu abordée : l'intelligence artificielle en éducation

Finalement, plusieurs thématiques propres au champ des technologies en éducation mériteraient une approche critique et sont encore pourtant peu abordées jusqu'à présent. C'est le cas de l'intelligence artificielle en éducation (IAED – de l'anglais, Artificial Intelligence in Education, AIED), initiée depuis une trentaine d'années principalement autour du développement de systèmes de tutorat intelligent dont le but est d'individualiser les parcours d'apprentissage des élèves (Becker, 2018). Les recherches appliquées en IAED, très dynamiques ces dernières années, soulèvent des enjeux relevant des approches critiques. Bien que ces développements soient louables, la fragmentation des contenus et des rythmes d'apprentissage vers laquelle ils tendent pourraient mettre à mal la mission fondamentale de socialisation de l'éducation. De plus, l'individualisation des parcours d'apprentissage pourrait contribuer, en l'absence de volonté politique explicite, à reproduire les inégalités scolaires existantes, en permettant aux élèves de milieux favorisés de réaliser leur parcours scolaire plus efficacement et plus rapidement que ceux des milieux défavorisés. On retrouve ici un enjeu déjà discuté de longue date : celui de la relation entre la différenciation pédagogique et les inégalités scolaires (p. ex., Haramein, Hutmacher et Perrenoud, 1979; Jacomino, 2012), que les travaux critiques sur l'intelligence artificielle gagneraient à

réactualiser pour le cas de l'intelligence artificielle. Souvent mentionnés, ces questionnements critiques touchant à des enjeux réels en termes d'équité scolaire ne font pourtant pas l'objet d'investigations.

Conclusion

Cet article visait à contribuer au repérage des sources et des objets d'étude critiques dans les travaux sur les technologies éducatives. Partant du constat d'un éclatement des positionnements épistémothéoriques dans ce champ de recherche (Albero, 2018, citée dans Stockless, 2018), l'article postule que les travaux à vocation critique s'appuient indistinctement sur plusieurs registres de critique, dans un mouvement qui diffère de la dynamique d'appropriation des approches critiques au sein du champ dans lequel ils s'inscrivent pourtant : les sciences de l'éducation.

Après avoir identifié quelques traits communs aux approches critiques, le détour par les recherches en éducation a permis de montrer leur important ancrage critique. Celles-ci se caractérisent par une forte dynamique d'appropriation des principes critiques pour l'étude d'objets multiples propres aux préoccupations éducatives. Ces travaux ont aussi progressivement contribué au renouvellement des approches critiques par le prisme de la sociologie pragmatique travaillant au redéploiement de la critique à partir du point de vue des acteurs en situation. En cela, les problématiques critiques en éducation ont suivi un déplacement conceptuel analogue à celui rencontré dans la sociologie générale depuis les années 70.

En revanche, les travaux sur les technologies éducatives ont dans l'ensemble moins cherché à formaliser un programme de recherche critique, structuré sur le plan épistémologique et théorique. Dans l'espace francophone, quelques travaux pionniers, comme ceux de Moeglin et de Miège, ont certes ouvert des voies de recherches critiques, mais celles-ci semblent jusqu'à présent avoir été peu suivies par les chercheurs. Il est vrai qu'un nombre croissant de travaux adoptent un positionnement critique visant à déconstruire les croyances pour interroger la réalité des activités pédagogiques instrumentées par les technologies. Néanmoins, ceux-ci font davantage appel à des opérations critiques d'ordre méthodologique que d'ordre axiologique, dont le propre est d'étudier en quoi les technologies apportent une contribution positive ou, au contraire, font obstacle aux missions de bien commun dévolues à l'éducation.

Les approches critiques sur les technologies en éducation dans l'espace francophone apparaissent dès lors davantage en cours de structuration. Quelques signes laissent toutefois penser que des efforts en ce sens sont en cours⁴.

La structuration d'un programme de recherche critique dans le domaine gagnerait à trouver sa voie singulière à l'intersection des fondements critiques établis en amont, d'une part, et des théories critiques de la technique (Feenberg, 2014), d'autre part, dont l'ambition est précisément de rendre compte d'un angle mort des approches critiques : les relations entre la technologie et les acteurs éducatifs dans une analyse attentive aux détails des rapports de pouvoir qui se jouent lors des processus sociaux d'innovation et d'appropriation. C'est, à notre sens, dans ce double mouvement d'appropriation que les approches critiques devraient se déployer à l'avenir dans le domaine des technologies en éducation.

Notes

- ¹ Sur base de la définition donnée par B. Albero (2014, p. 309), le terme « technologies » renvoie, dans cet article, au sens courant qui lui est donné en éducation et formation, à savoir : « l'ensemble des objets techniques, anciens ou récents, utilisés par les acteurs du domaine. [...] Avec la banalisation du numérique, [ce terme désigne de façon générique] tout un champ d'expériences et de pratiques [éducatives et formatives] étroitement rattachées à la notion d'innovation ». Par souci de commodité, l'expression « technologies en éducation » est utilisée de façon équivalente à « technologies à visée éducative et/ou formative », et à « technologies éducatives », malgré les débats critiques relevant de l'ambiguïté sémantique de cette dernière expression quant à la nature intrinsèquement formatrice des objets techniques que celle-ci sous-tend. Si l'on suit la définition de Baron et Bruillard (1996), ces expressions désignent des technologies présentes dans le contexte éducatif soit en tant que contenus d'enseignement, soit en tant qu'outils de travail, soit en tant que médias qui appuient l'enseignement et l'apprentissage.
- ² Cairn.info est un portail Internet lancé en 2002 à l'initiative de quatre maisons d'édition (Belin, De Boeck, La Découverte et Erès) ayant en charge la publication et la diffusion de revues de sciences humaines et sociales francophones. Ce projet visait à unir les efforts de ces maisons d'édition pour améliorer leur présence sur Internet. Son ambition est d'aider les maisons d'édition, organismes ou associations ayant en charge des publications de sciences humaines francophones à gérer la coexistence des formats papier et électronique.
- ³ Concernant la didactique, dans le cadre de cet article, nous ne pourrons que poser quelques éléments dans la mesure où la dimension critique des constructions didactiques mériterait en soi une note de synthèse. En effet, si l'on considère en particulier les travaux de Brousseau, ils manifestent la préoccupation continue des apprentissages des élèves, appuyés en cela sur Piaget dans leur genèse. La diffusion du modèle coïncide avec le développement d'une épistémologie des savoirs scolaires dans une finalité d'enseignement-apprentissage efficient (Brousseau, 2011). En quoi cela manifeste explicitement ou non la prise en compte des éléments d'une théorie critique ferait l'objet d'une discussion très intéressante, mais dont nous sommes obligés de faire l'économie ici.
- ⁴ On pense notamment aux travaux du groupe Kairos autour d'une approche sociocritique du numérique en éducation.

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Capturing digital (in)equity in teaching and learning: a sociocritical approach

Capturing
digital (in)
equity

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Abstract

Purpose – The purpose of this paper is to present a sociocritical approach and describe how it is relevant to the study of digital equity in education.

Design/methodology/approach – The method is based on a synthesis of the literature regarding critical approaches to digital technology in education.

Findings – A sociocritical approach is an attempt to formulate a sociological perspective combined with a critical dimension. It provides a relevant theoretical basis for addressing digital (in)equity issues.

Originality/value – Little use has been made of critical theories in the study of digital technology in education. That may seem surprising insofar as the study of digital technology in education is related to other fields having a well-established critical tradition. The authors build on their work and tailor it to the case of digital technology in education.

Keywords Education, Digital (in)equity, Sociocritical approach

Paper type Conceptual paper

Introduction

The study of educational technologies has mainly been done in the school environment and has sought to document technological practices that can play a supporting role in teaching and learning (Erstad and Arnseth, 2013; Selwyn, 2010). Accordingly, researchers' main concern has been the issue of how effective digital technology is in education; the corollary of which is that they have tended to discount the attendant (in)equity issues. In education, is digital technology inclusive and fair? Can it contribute to greater inclusion and fairness? How? These questions have remained somewhat secondary relative to the issue of the effectiveness of digital technology.

However, a growing number of studies have examined digital inequalities among school-age children (e.g. Collin *et al.*, 2016; Livingstone and Helsper, 2007; Hargittai, 2008, 2010; Gire and Granjon, 2012; Eynon, 2009; Plantard and André, 2016), concluding that in their daily life, where technology is concerned, they experience disparities in access, use, proficiency and interest that mirror existing academic and social inequalities. Among the projects undertaken to model digital inequity, the best known are certainly those of Van Dijk (2005), who postulated that digital inequity results from individual and social factors (e.g. gender, age, ethnicity, migration status, level of education, income, employment, place of residence, etc.), the socioeconomic factors being particularly significant in the scientific literature (Hargittai, 2010; Gire and Granjon, 2012; Livingstone and Helsper, 2007). The authors contend that the factors will add up differently for each individual and will, in particular, determine the resources (financial, social, material, and so on) available to them to successfully engage with the digital realm. Resource availability, in turn, will affect individuals' level of interest and skill in the digital technologies that surround them, their access thereto and the extent to which they use them. Individuals' degree of engagement with digital media will make them more or less able to use them to participate in the life of



society, whether in economic, political, or educational terms. Again, those less able to engage with technology on account of the digital divide are liable to be vulnerable to social factors that further hinder their access to technology, so that digital inequality between individuals will persist or even worsen. When transposed to education, Van Dijk's (2005) model paves the way for several avenues of research, such as:

- How digital (in)equality manifests itself in the extracurricular as opposed to the school context. Here the question is to what extent schools help counteract or, conversely, replicate the digital divide faced by teachers and learners in their extracurricular lives.
- The academic impact of digital (in)equality, i.e. its tangible effects on students' progress, success and school retention, but also on teachers' working conditions.
- Schools' response to digital (in)equality. The focus here is on how technology can contribute to the empowerment of teachers and students, rather than to their subjection to school and social structures.

While interesting, most studies of digital (in)equality in education deal mainly with measures of digital (in)equality from the standpoint of differing access, usage, skills and representation. Such measures may account for formal (in)equities in education but tend to ignore substantive and durable (in)equities, which are entangled with broader social inequalities. Following Papendieck (2018), we believe that more research is needed to "build vocabularies and fluencies around race, class, gender and other lines of oppression" (p. 3). To continue along this path, theoretical work is needed to further clarify the conceptual ins and outs of digital (in)equality in education.

Hence, the paper proposes a theoretical contribution to the study of digital equity in teaching and learning with digital technologies by outlining a sociocritical approach to digital technology in education, one that can provide a theoretical backdrop relevant to the consideration of (in)equality issues. This approach has been developed over the years by the French-language collective Kairos (<http://reseau-kairos.org/>) in an effort to synthesize knowledge of critical approaches to digital technology in education. We hold that a sociocritical approach to digital technology in education, by virtue of both its theoretical basis and its methods, affords a solid and consistent framework to help shape the study of digital (in)equality in such a way as to overcome certain limitations of the field.

Our starting point is the observation that the most usual approaches to the study of digital technology in education have been instrumentalist or deterministic. Such approaches tend to gloss over certain issues of integration of digital technology in education, including those pertaining to digital equity. Here, therefore, we present a sociocritical approach and assess its relevance to the study of digital (in)equality in education.

Instrumentalist and deterministic approaches to digital technology in education

A number of authors (Schmid, 2006; Selwyn, 2012; Oliver, 2011; Warschauer, 1998) hold that the most usual approaches to the study of digital technology in education have been instrumentalist or deterministic.

Digital technology in education, according to the instrumentalist conception, is considered neutral and value-free: educational stakeholders use and alter it to suit their needs. Digital technology, so considered, is more like something taken for granted than the basis of a real theoretical conception of the technology/education relationship: "Common sense instrumentalism treated technology as a neutral means, requiring no particular philosophical explanation or justification" (Feenberg, 1999, p. 1). In other words, digital technology is seen as a set of objects that teachers and learners use in support of their

activity, with no appreciable change to the educational situation (Warschauer, 1998). Thus, the instrumentalist approach does not lend itself to any consideration of how digital technology influences education.

The deterministic conception has certain things in common with the instrumentalist one: digital technology is seen as neutral, having no purpose other than to effectively support teachers' and learners' activities. Under the deterministic conception, however, educational stakeholders are seen as having little control over digital technology, which evolves linearly, in a relatively autonomous fashion, obeying no rule but the continuous pursuit of optimization (Feenberg, 1999). In other words, digital change proceeds in a quasi-Darwinian way: the technology has its own internal logic, which naturally tends toward digital advancements. These are seen as beneficial, by definition, to educational progress. What we have here is a common misunderstanding, whereby digital innovation is conflated with educational innovation, as if the former automatically gave rise to the latter. Hence, the deterministic conception can only sustain itself with the belief that digital technology is the salvation of education: as it becomes more perfect, education too must improve. This conception hews to a simplistic view of the technology/education relationship, such that "a computer is an all-powerful machine that in and of itself brings about certain determined results" (Warschauer, 1998, p. 757).

In both cases, the approaches mainly focus on the issue of the effectiveness of digital technology in education. As several authors point out (Bayne, 2014; Erstad and Arnseth, 2013; Ito *et al.*, 2013), these approaches consider digital technology to be a way of supporting and improving the educational situation. It follows that studies loyal to these approaches tend to focus on digital technology's positive and negative impacts on the conceptions, practices and processes of classroom teaching and learning. Such concerns are quite legitimate, but they fail to reckon with the (in)equity issues raised by digital technology in education. To address those issues, an approach needs to be taken "that moves away from a 'means-end' way of thinking about how best to harness the presumed inherent educational potential of digital technology and, instead, focuses on the socially contested and socially shaped nature of technology" (Selwyn, 2010, p. 66).

In what follows, we present a sociocritical approach to digital technology in education that can shed light on certain digital education issues that are not immediately apparent in the classroom but which inevitably affect the relationship between digital technology and educational stakeholders. This sociocritical approach appears to us to provide a relevant theoretical basis for the study of digital equity in teaching and learning with digital technologies.

A sociocritical approach to digital technology in education

By "sociocritical approach" we mean a way of understanding digital technology in education from a sociological standpoint combined with a critical dimension. This theoretical convergence has already been undertaken by some authors working on technologies outside the field of education (Feenberg, 1999; Granjon, 2004; George, 2012; Vidal, 2012). We shall build on their work and tailor it to the case of digital technology in education.

A sociological perspective on digital technology in education

A number of authors have emphasized how valuable a sociological approach can be in examining digital technology in education (Bennett, 2014; Kerr, 1996; Selwyn, 2016). Taking that approach, digital technology can be seen as an eminently social phenomenon (Dagiral and Martin, 2017): there is an inherent social aspect to digital technologies that colours their design, distribution, and end use. By highlighting the reciprocal connections between digital technologies and the social environments in which they

operate, a sociological perspective can guard against partial analyses couched in terms of the linear, mechanical effects digital technologies have on society, as such analyses are generally based on an artificial opposition between technology and social systems, materiality and humanity.

The scope of inquiry into digital technology in education can be broadened, at two levels, under a sociological perspective. First, the analysis will take account of what is “upstream” of teachers’ and learners’ use of digital technology, namely, its design and implementation phases. In that process, the integration of digital technology in education can be traced back through the partly indeterminate and unpredictable social contingencies that have shaped it (Selwyn, 2016); this integration is seen as a social process made up of dynamic, recursive phases, each of them involving more or less convergent stakeholders, choices and interests that help shape subsequent stages of the process. Thus, the integration of digital technology in education is determined not only by its intrinsic technical features, but also by the relationships it imposes on all those concerned (designers, politicians, administrators, teachers, learners, etc.). The explanatory power of such analyses has already been demonstrated outside the field of education, for example in the sociology of translation (Akrich *et al.*, 2006).

Second, a sociological perspective makes it possible to place digital technology in the context of teachers’ and learners’ many other daily spheres of activity (Bennett, 2014; Erstad and Arnseth, 2013), including the home. A number of authors have pointed out that for teachers and learners, school is a secondary digital environment, after the home, where uses of digital technology are richer, more diverse and spontaneous (Buckingham, 2007; Furlong and Davies, 2012). Hence, the uses that teachers and learners develop out of school may have a (positive or negative) impact on their readiness to use the digital technology provided at school. This makes it possible to highlight the peculiarities and disparities in the ways teachers and learners use digital technology, while also examining how these relate to non-educational uses in the social experience of each individual.

To summarize, a sociological perspective enables systemic, dynamic consideration of digital technology in education as a complex social phenomenon involving multiple stakeholders and processes. Sustained attention can then be paid to the non-educational sphere, considering both teachers’ and learners’ extracurricular uses of digital technology and non-educational actors (e.g. industrial designers). A sociological perspective, therefore, “attempts to examine the use of technology in educational settings from the perspectives of all of the various contexts that shape and define educational technology – from the concerns of government and industry, to the concerns of the classroom and the home” (Selwyn, 2010, p. 70).

A critical dimension for digital technology in education

Under a sociocritical approach to digital technology in education, this sociological perspective is combined with a critical dimension. Selwyn (2015) notes that little use has been made of critical theories in the study of digital technology in education. That may seem surprising insofar as the study of digital technology in education is related to other fields having a well-established critical tradition, including: the sociology of education, which has seldom studied digital technology; and critical theories of technology, little use of which has been made in the field of education. However, several critical analyses of technology in education have been carried out over the years. Among the best known are those of Roszak (1986), Bowers (1988), Cuban (1988, 2001), Beynon and Mackay (1988), Postman (1992), Noble (1999) and Watters (2014, 2015, 2016, 2017).

Far from constituting a unified, homogeneous paradigm, critical theories reflect a variety of schools of thought, e.g. critical theory, cultural studies and sociology of domination. They do however have a family resemblance (De Munck, 2011) that may be seen in a few common features. As regards content, critical theories focus on asymmetrical social relationships,

both at the individual and collective level, which are seen as socio-historically constructed power structures involving individuals and groups with unequal relationships and positions within a society. Consequently, the typical objects of study of critical theories tend to be primarily related to issues of domination and emancipation (George, 2014).

More specifically, social domination and oppression are considered problematic insofar as they run counter to the aims of democratization and justice, whereas emancipation contributes to the attainment of those aims. Hence, the purpose of critical theories is not simply to document asymmetrical social relationships, but to further a change toward greater emancipation. This explicit, affirmed willingness to contribute to a more egalitarian society entails three inseparable principles, which distinguish critical work from other scientific work (Bohman, 2005; De Munck, 2011; Horkheimer, 1974): the explanatory, normative and practical principles. The first principle (explanatory principle) states that critical work is intended to describe and explain the real. Considered separately from the other two, this principle is not a feature of critical work, as it applies to all scientific research, whether of a critical nature or no. It is therefore the addition of the other two principles (normative and practical) that distinguishes critical work from other scientific work. The normative principle disclaims the researcher's supposed axiological neutrality. On the contrary, it presupposes that the researcher cannot make a completely objective analysis, inasmuch as any scientific activity implies values, and will necessarily be shaped by those values, starting with the choice of questions to be asked (or not) of reality (Granjon, 2015). These values must therefore be made explicit and acknowledged; critical theories do so by openly pursuing goals of democratization and social justice, which they hold to be socially more legitimate than other alternatives. Finally, the practical principle implies that critical work must propose and foster possible alternatives to the asymmetric social relationships it documents and condemns in order to change the situation for the better. As Boltanski (2009) says: "Critical theories feed off ordinary criticism, even though they develop such criticism differently, reformulate it, and are bound to return to it since their goal is [...] to commit the people to whom they are addressed to actions that will result in changing the contours [of reality]" (p. 20-21; (translation)).

When transposed to the case of digital technology in education, what is the implication of this critical dimension? It means seeing technology as the result of power relations, power games and multiple contradictory interests that influence not only its design and implementation in education, but also its use by teachers and learners. More specifically, the critical dimension affords a dual perception of digital technology in education: first as an object of power; then as a vector of power (Moeglin, 1993). As an object of power, digital technology gives rise to contention between different actors with multiple and often contradictory interests (economic, political, administrative, educational, parental, etc.). It is ambivalent insofar as it is always caught between different alternatives, which, from design right through to end use, are subject to the power relations between actors. Thus, the implementation of digital technology in education crystallizes the power relations and educational values that are inherent in digital tools' technical properties (Feenberg, 1999). Far from being neutral, digital technology is therefore a vector of power and helps to convey "certain values/biases which reflect its own historical development and design" (Schmid, 2006, p. 50). To use Baoudard's (2014) term, each digital tool represents a "technologization" of certain educational values rather than others. Feenberg (1999) offers a good summation of this technologization process:

Technologies are selected by the dominant interests from among many possible configurations. Guiding the selection process are social codes established by the cultural and political struggles that define the horizon under which the technology will fall. Once introduced, technology offers a material validation of that cultural horizon. Apparently neutral technological rationality is enlisted in support of a hegemony through the bias it acquires in the process of technical development (p. 87).

Each new educational technology thus carries with it certain educational conceptions (e.g. about teachers and students, their ways of teaching and learning, etc.) that result from the various interests and power relations among the many actors involved in its design. To take a topical example, several works outside the educational field (e.g. Eubanks, 2018) highlight how algorithms embody potential biases that stem both from their designers' choices – and unconscious impulses – and from the data, themselves biased, on which they are based. In education, given the increased application of algorithm-based automation in school management (e.g. provision of educational services) and in teaching and learning (e.g. adaptive learning), we can expect the same biases to occur, although these have yet to be the focus of serious empirically supported scientific analyses – which would be warranted.

Hence, educational technology acts as a vector of power. Teachers and students using this technology will inevitably reinforce the dominant educational values inherent in its operation, which must be scrutinized in the light of their greater or lesser compatibility with the mandate of democratization and emancipation of education (Plante, 2014). On this point, several authors state that digital technology in education, in its current state, is mainly a vector of technical rationality and industrialization (Hall, 2011; Moeglin, 1993), whose compatibility with the mission of education is questionable. In summary, the critical dimension of digital technologies in education makes it possible to analyze “in what ways, and by whom, the technologies are appropriated, subverted, resisted or ignored, and how this reshapes activity, and reflects and realigns the balance of power and influence in the sociocultural settings that characterise education” (Schmid, 2006, p. 72).

Implications of a sociocritical approach to understanding digital (in)equity in education

Thus defined, a sociocritical approach affords a relevant theoretical background for the study of digital (in)equity. More specifically, it aims to provide an epistemological and theoretical basis for the analysis of digital inequalities by closely linking them to the underlying dominance relationships. Approaching digital (in)equity from this viewpoint implies understanding it as relational, intersectional and experiential.

A relational perspective on digital (in)equity

Digital (in)equity is closely linked to dominance relationships and hence may be explained by relationships between individuals according to their respective places in the social sphere, not by each individual's personal characteristics. It follows that the analytical unit is not the individual (whether female, socially disadvantaged, etc.) but rather his or her social relationships (e.g. women's social positioning relative to other gender groups; disadvantaged persons' social positioning relative to other socioeconomic groups, etc.). This relational view of digital (in)equity is not new. In 2005, Van Dijk suggested that there was a need to go beyond an individual view of digital inequalities, pointing out that “inequality is not primarily a matter of individual attributes but of categorical differences between groups of people” (p. 10). A sociocritical approach – by explicitly placing digital (in)equity within the framework of dominance relationships – emphasizes its resolutely relational rather than individual nature. At the educational level, this perspective makes it possible to study digital (in)equity within heterogeneous populations of teachers and students, as well as between these and other actors involved in mainstreaming technology in education (political, technological, parental, etc.).

An intersectional perspective on digital (in)equity

If we view digital (in)equity as one element of dominance relationships, we can also appreciate the many oppressions to which individuals are subject and which contribute to

shaping the forms of digital inequality they experience – in education and other areas of their lives. Instead of merely summarizing the effects of one, two or three dimensions of inequalities, proponents of the concept of intersectionality stress the interwoven nature of these oppressive categories (Crenshaw, 1989). In other words, since an individual's social positioning is always at the confluence of a number of forms of oppression, the digital inequalities he or she faces are the unique outcome of a particular combination of dominance relationships. In this connection, Lord (1983), a feminist, lesbian author who also happens to be a person of colour, asserts that it is impossible to compartmentalize the forms of social inequality she experiences in her daily life:

I cannot afford the luxury of fighting one form of oppression only. I cannot afford to believe that freedom from intolerance is the right of only one particular group. And I cannot afford to choose between the fronts upon which I must battle these forces of discrimination, wherever they appear to destroy me (p. 9).

On the educational level, an intersectional perspective facilitates the study of the digital (in) equity experienced by educational actors (teachers and students) by foregrounding the particular form it takes for each of them. Its manifestations are far from homogeneous or uniform, instead taking a variety of forms in the extracurricular and school life of each teacher and student.

An experiential perspective on digital (in)equity

Finally, approaching digital (in)equity from the viewpoint of unequal social relations highlights the negotiations that take place between the dominance structures that partially determine individuals' actions and the latitude they enjoy in coping with them. To analyze the diverse inequitable uses of digital technology, it is necessary, as Granjon (2004) writes, to account “for the dialectic between microsocial behaviors and macrosocial orientations, personal experiences and collective structures (class, affinity group, institutions, etc.), between subjects’ actions and the social system [...]” (p. 3 (translation)). Digital (in)equity is thus not a given; it emerges from a negotiation process involving social structures and actors. From this standpoint, studying digital (in)equity implies taking the existing structural mechanisms into account, as well as individuals’ subjective experience thereof. However, since everyone has a different place in society, there is every reason to believe that people’s ability to negotiate the dominance relationships in which they are involved varies between individuals. The study of Angus *et al.* (2002) is a notable example of this experiential perspective. These authors conducted a multi-case study of four Australian families who took advantage of a program that helped them purchase an internet-connected computer. Using the concept of cultural capital (Passeron and Bourdieu, 1970), they show how each family makes use of the hardware and the differing value they derive from it. Moreover, their study clearly shows that there was an element of freedom and unpredictability in the way the families took to the technology, as well as in their social trajectory generally. From an educational standpoint, this perspective calls for an analysis of digital (in)equity that is not limited to its objective markers (e.g. socioeconomic level, gender). Instead, the analysis should be focused at a midpoint between the educational and social structures of the educational actors (teachers and students), while also taking their individual and subjective experiences into account.

Implications of a sociocritical approach to the study and practice of digital equity in education

By adopting a relational, intersectional and experiential perspective, a sociocritical approach makes it possible to account for digital (in)equity in all its complexity by closely linking it to the various existing inequitable social relations. This way of conceptualizing

digital (in)equity has certain methodological implications; we can roughly sort the relevant studies into two categories, depending on whether they seek to document digital inequity or to take action to overcome it.

Documenting digital (in)equity

In documenting digital (in)equity in education, “formal goals and measures of equality” (Papendieck, 2018, p. 3), as measured by questionnaires or standardized proficiency tests, are relevant but not sufficient. While they do afford a macro-level portrait of the differing degrees of digital engagement (in terms of interest, access, use or competence) in a given sample, they provide scant information on how these differences are reflected in the lived experience of individual teachers and learners. Under a sociocritical approach, it is advantageous to combine these macro-level analyses with micro-level ones that are attuned to teachers’ and learners’ individual situations. Hence, analysis needs to take a middle path between the facts, on the one hand, and their meanings for teachers and learners, on the other hand, with the aim of reframing individual behaviors within the dominant social structures. Concretely, it must seek to complement these broad overviews with a methodical global approach, in particular in-depth interviews that will canvass teachers’ and learners’ perceptions. Ethnographic surveys could also be conducted. They can bring out evidence of digital inequity that participants themselves are not always aware of, in the form of “the internalized products of certain forms of social domination” (Granjon *et al.*, 2009, p. 21 (translation)). For example, Robinson (2009) looked at the case of learners who, having no internet access at home, use computers at public libraries to do their homework. Her results showed that, compared to those with a home internet connection, these learners had less time and freedom to explore other types of internet use (e.g. relational, playful) and were reduced to “a taste of the necessary” (Robinson, 2009), i.e. to utilitarian, undiversified representations and uses. While phenomena of this kind are difficult for participants themselves to become aware of, they can be brought to light using comprehensive ethnographic methods that will enable the researcher to uncover patterns of action that are implicit at first glance.

Taking action on digital (in)equity in education

Schools and the community associations that support them are appropriate stakeholders in the effort to ensure digital equity among learners (Wilkin *et al.*, 2017). They regularly undertake actions to train learners to use digital technologies and, as a corollary, to alleviate digital inequity (OECD, 2010). For example, currently numerous initiatives relate to training in computer coding. From a sociocritical point of view, however, such initiatives have certain limitations. In the first place, they often fail to take into account how deeply digital technology is intertwined with the broader social and educational structures and realities (Selwyn, 2014). The result is a mismatch between the responsible authorities’ intentions and official policies, on the one hand, and learners’ digital practices – which remain relatively unchanged – on the other hand (Wilkin *et al.*, 2017; Warschauer *et al.*, 2012). And, second, they are mainly predicated on pedagogical approaches of the “learning by doing” type (Pereira, 2017) – that is, on the idea that learners’ actual use of digital technology leads to an understanding of how it works and its implications. But it is far from self-evident that technical knowledge (e.g. knowing how to code) will lead to empowering knowledge (e.g. of how the code works and what its implications are), as is noted by Miller *et al.* (2018): “there’s a big difference between having skills – knowing how to use the internet – and having understanding – knowing the implications of using the internet. Digital understanding is not about being able to code, it’s about [...] adapting to, questioning and shaping the way technologies are changing the world” (p. 5). If mere use of digital technologies is conflated with actual understanding of how the technologies work and what they imply, educational initiatives run the risk of pursuing narrowly technical goals that will not tend to empower learners.

One of the tenets of the sociocritical approach we favor is to further a change toward greater empowerment of teachers and learners. Yet, few studies (e.g. De Castell, Bryson and Jenson, 2002) have looked at how schools can best address it; consequently, there is no model for educational action to promote digital equity. Action research is a highly relevant type of research in the endeavor to achieve such a model, as, being based on broad participation and involvement of teachers and learners, it is best able to take their particular circumstances into account in shaping the changes that will lead to greater digital equity.

Conclusion

A sociocritical approach is an attempt to formulate a sociological perspective, such as has already been taken by several researchers in the field of digital technology in education (Bennett, 2014; Kerr, 1996; Selwyn, 2016), combined with a critical dimension that is less often adopted in the field of digital technology in education (Selwyn, 2015). More specifically, a sociological perspective broadens the scope of the questions that have heretofore been asked about digital technology in education, questions which, under the instrumentalist and deterministic approaches, have focused mainly on the issue of the effectiveness of the technology in the school context. Beyond the school environment, sustained attention can then be paid to the non-educational sphere, considering both teachers' and learners' extracurricular uses of digital technology and non-educational actors (e.g. industrial designers). The critical dimension, in turn, enables these broader questions to be understood in terms of unequal social relations and discussed in terms of their compatibility with the mandate of democratization and emancipation of education.

Hence, a sociocritical approach appears to us to provide a relevant theoretical basis for addressing digital (in)equity issues. On the one hand, it enables digital (in)equity issues to be linked to broader academic and social inequities, both at the design and implementation stages and in teachers' and learners' use of the technology, while also making it possible to propose fairer alternatives, to ensure that digital technology contributes to school equity efforts. This perspective is in line with Papendieck's (2018) suggestion that we ought to "move beyond formal goals and measures of equality – like technology access, STEM diversity, or digital participation—and use technology to build vocabularies and fluencies around race, class, gender and other lines of oppression" (p. 3). In our view, a sociocritical approach to digital technology in education, by virtue of both its theoretical basis and its methods, affords a solid and consistent framework to help shape the study of digital (in)equity in such a way as to overcome the limitations noted by Papendieck (2018).

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PROCHAIN NUMÉRO

Apprentissage et plaisir

Pas qu'une question de « fun » mais surtout de plaisir au cœur de l'apprendre et du faire apprendre

Une numérisation impensée des services d'intérêt général : un mécanisme producteur d'inégalités

La numérisation accrue des services publics et d'intérêt général est vue comme une évolution allant de soi et porteuse de progrès politiques, économiques et démocratiques. Elle est supposée faciliter l'accès de tous les citoyens à leurs droits fondamentaux, notamment en facilitant les relations qu'ils entretiennent avec ces services. Il est pourtant essentiel que ce mouvement soit interrogé dans ses présupposés. L'étude que nous avons menée à l'Université Catholique de Louvain montre que cette stratégie numérique repose sur un impensé qui risque davantage d'éloigner les publics vulnérables de leur accès effectif aux droits sociaux fondamentaux...

Par Périne BORTCORNE

C'est un fait difficilement contestable: l'utilisation des technologies numériques – ordinateur, mais surtout des smartphones et autres objets connectés – s'impose aujourd'hui comme une évidence dans la vie courante de chaque individu, y compris des adultes en difficulté avec l'écrit. De fait, les résultats du dernier sondage en date sur l'accès et l'utilisation des technologies numériques¹, réalisé auprès d'apprenant·e·s de l'asbl Lire et Ecrire Bruxelles (LEEB) soulignent la popularité du téléphone portable chez les apprenants interrogés, dont la majorité possède un téléphone de type smartphone.

Ce constat n'efface évidemment pas les inégalités liées à la fois à la qualité de l'accès aux technologies numériques et à leurs usages que de nombreuses études pointent depuis longtemps. Pour autant, cette massification des pratiques connectées conforte les discours politiques et institutionnels dominants qui présentent la numérisation accrue des services publics comme une évolution à la fois inévitable et porteuse de progrès démocratiques. Les promoteurs de la transition numérique ne cessent notamment d'insister sur le potentiel des technologies numériques pour simplifier les relations entre citoyens-usagers et services publics.

Sans nier les avantages qu'offre la numérisation des services publics et, plus globalement, d'intérêt général² dans de nombreux domaines – administration, santé, mobilité etc. –, il est néanmoins essentiel de questionner les logiques sous-tendues dans les politiques de numérisation et de débattre des enjeux sociopolitiques que soulève cet avènement progressif d'une offre de services « sans contact physique ». Il s'agit en particulier de comprendre comment les organismes d'intérêt général articulent la numérisation de leurs services avec le maintien d'une offre accessible à tous les usagers, sans

¹ Iria GALVAN CASTANO, *Adultes en difficulté avec l'écrit et nouvelles technologies : quel accès et quels usages ?*, Lire et Ecrire Bruxelles, 2019. En ligne : www.lire-et-ecrire.be/Adultes-en-difficulte-avec-l-ecrit-et-nouvelles-technologies-quels-acces-et

² Un organisme ou service d'intérêt général peut recouvrir un large éventail d'activités de nature économique ou non (transports collectifs, soins de santé, services administratifs, etc.) et des formes organisationnelles diverses (institutions publiques, associations, mutualités, etc.), mais dont le socle commun est de poursuivre une mission d'intérêt général en vue de répondre à des besoins collectifs. Ce socle impose de respecter des principes au premier rang desquels figurent l'égalité d'accès face au service ainsi que la continuité et l'adaptabilité de l'offre.

discrimination. L'enjeu se pose avec d'autant plus d'acuité pour ces derniers, qui fondent la justification de leur existence sur les principes d'universalité et d'égalité de traitement des usagers.

Ces questions étaient au cœur d'une recherche menée récemment par une équipe de l'UCLouvain sur l'exclusion/inclusion numérique³. Un de ses volets portait sur la conception et la place de l'inclusion numérique dans les stratégies de numérisation des fournisseurs de services d'intérêt général⁴, ce qui a conduit à réaliser une série d'entretiens auprès des personnes en charge du travail de conception des services en ligne⁵. Au-delà du constat bien connu d'existence de disparités sociales dans l'utilisation des services en ligne, cette réflexion permet d'éclairer comment les modalités de conception de services sont susceptibles de contribuer (ou non) à produire de l'exclusion par le numérique.

Une politique de numérisation «par défaut» ...

Depuis plus de vingt ans, les organismes d'esprit public⁶, en Belgique comme ailleurs en Europe, sont engagés dans un vaste programme de modernisation de leurs services par le biais des technologies numériques. Cette marche vers le numérique s'est néanmoins accélérée depuis 2010 avec la consécration du principe «digital par défaut» dans les plans d'actions européens successifs en matière d'administration en ligne⁷. Ce principe signifie que tout service

³ La recherche IDEALiC – L'inclusion numérique par l'amélioration de l'autonomie et du pouvoir d'agir au fil du parcours de vie – a été financée par la Politique scientifique fédérale (BESLPO) en Belgique dans le cadre du programme BRAIN-be. Axe 5– Grands défis sociétaux (2015-2019). Celle-ci rassemblait deux universités, l'UCLouvain du côté francophone et la Vrije Universiteit van Brussel du côté néerlandophone.

⁴ Carole BONNETIER, Périne BROTCORNE, Dana SHURMANS, *Les services d'intérêt général à l'épreuve de la numérisation : études de cas dans les secteurs de la mobilité, de la santé et de l'administration*, IDEALiC, juin 2019, 116 p. Voir : <https://dial.uclouvain.be/pr/boreal/object/boreal:217919>

⁵ L'enquête de terrain a été réalisée en 2018 par Carole BONNETIER et moi-même au sein de trois organismes d'intérêt général en Belgique, dans les secteurs de la mobilité, de la santé et de la vie administrative.

⁶ Voir : Laurent THEVENOT, *Les justifications du service public peuvent-elles contenir le Marché?* in Lyon-Caen A. & V. Champeil-Desplat (dir.), *Services publics et droits fondamentaux dans la construction européenne*, Dalloz, 2001.

⁷ Voir le plan d'action européen pour l'administration en ligne 2011-2015 (COM/2010/0743 final). En ligne : <https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX:52010DC0743> et son successeur, le plan d'action pour l'administration en ligne 2016-2020 (COM/2016/0179 final). En ligne : <https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX:52016DC0179>

est conçu, à la base, en format numérique « *de sorte à être tellement attrayants que (...) la grande majorité des transactions s'effectueront en ligne.* » L'Union européenne invite, dans ce cadre, les institutions publiques des Etats membres « *à fournir, d'ici 2022, à tous les citoyens des services publics numériques.* »⁸

Cette politique de « digital par défaut » affiche deux ambitions majeures : elle entend non seulement améliorer l'efficacité du fonctionnement des institutions grâce à une réduction drastique des couts dans un contexte de contraintes budgétaires accrues. Mais, elle vise aussi et surtout à réduire les charges administratives qui pèsent sur les citoyens-usagers par le biais d'une offre de services de « *bout en bout simplifiée, conviviale et personnalisée.* »

Derrière ces objectifs annoncés de simplification des services par le biais de leur numérisation, il convient toutefois de s'interroger sur les stratégies concrètement déployées par les institutions pour s'assurer que prime bien le principe d'intérêt général propre à leurs missions. Au départ de la recherche, l'hypothèse était que le processus de numérisation s'inscrivait dans le cadre d'une stratégie clairement définie, dont l'un des objectifs majeurs consistait précisément à éviter la mise à distance des usagers peinant à accéder aux services numériques ou, plus nombreux, à en tirer les bénéfices attendus.

... sur fond d'impensé numérique

Or, cette perspective apparaît incertaine tant la transition numérique des services semble aller relativement de soi au sein des trois organismes étudiés. Celle-ci apparaît en quelque sorte « naturalisée » et sa légitimité est peu questionnée par les acteurs interrogés au regard des valeurs traditionnellement portées par les services d'intérêt général.

Cette forme de consensus implicite sur le nécessaire bien-fondé de la conversion numérique des services a pour effet d'entraver le développement d'une stratégie murement réfléchie et partagée par l'ensemble des professionnels rencontrés. La vision relativement morcelée en la matière freine, à son tour, la mise en œuvre d'actions coordonnées en faveur d'une numérisation inclusive. Un professionnel rencontré confie d'ailleurs qu'il y a bien « *un manque*

⁸ Ibidem.

de stratégie transversale. La question de l'exclusion vient au deuxième plan car les solutions sont de facto techniques. » Ce propos révèle de façon assez exemplaire la tendance à « tomber » dans une forme de solutionnisme technologique⁹. Celui-ci consiste à apporter d'emblée des solutions techniques à des problèmes car celles-ci sont associées à un progrès sans forcément se demander si elles répondent aux besoins identifiés.

Au-delà d'un consensus sur la nécessité de promouvoir des services numériques accessibles à tous les usagers se cachent des conceptions plurielles de ce que recouvre l'inclusion numérique. Celles-ci se déclinent selon trois types de justification s'appuyant sur diverses logiques coexistant tant bien que mal : une logique marchande d'abord, suivant laquelle l'inclusion numérique permet de capter une clientèle plus importante ; une logique industrielle ensuite, suivant laquelle l'inclusion numérique permet d'accroître l'efficacité des services ; une logique civique enfin, suivant laquelle l'inclusion numérique permet de rendre les services plus égalitaires. Leur juxtaposition au sein des différents départements d'un même organisme contribue à expliquer les tâtonnements concernant la direction à prendre pour numériser l'offre de services. Tout se passe comme si la certitude d'être face à un processus inéluctable laisse la place à un certain flou quant aux orientations à donner pour parvenir à concilier numérisation des services et maintien de l'intérêt collectif.

Au-delà des conceptions divergentes sur les finalités de l'inclusion numérique, les acteurs rencontrés s'accordent néanmoins autour d'un cadre commun pour penser la numérisation des services et sa dimension inclusive. Comme déjà souligné, cette transition est considérée à la fois comme inévitable et désirable par et pour tous. A les écouter, celle-ci permet à l'usager d'être « inclus d'office » dans la mesure où les contenus adaptés viennent automatiquement à lui. De plus, ce mouvement apparaît aussi profitable aux non-connectés, qui bénéficient du désengorgement des guichets physiques le temps qu'ils se familiarisent, à leur tour, aux services en ligne.

Cet impensé contribue en somme à faire de la numérisation un passage obligé pour toute organisation, y compris d'intérêt général, sans qu'une stratégie

⁹ Voir : Evgeny MOROZOV, *Pour tout résoudre, cliquez ici : l'aberration du solutionnisme technologique*, Fyp éditions, 2014.

ne soit définie ni que la légitimité du processus ne soit interrogée au regard des obligations incombant à ces organismes. Cette dynamique concourt à éluder les choix politiques et sociaux enfermés dans les dispositifs technologiques retenus par les acteurs chargés de la migration numérique des services. Elle participe en ce sens d'une dépolitisation des choix collectifs¹⁰.

Une représentation biaisée des usagers lors de la conception des services

Le principe de numérisation «par défaut» des services, couplé à cette forme «d'impensé numérique», conditionnent la représentation que les organismes se font de leurs publics-cibles ainsi que la manière de prendre en compte leurs attentes et besoins dans le travail de conception. Cette double tendance favorise en effet le développement d'interfaces adaptées avant tout aux besoins d'un usager standard «mobile et connecté». Qu'il s'agisse de méthodes basées sur la mobilisation de porte-paroles (associations de seniors ou de personnes en situation d'illettrisme, par exemple) ou sur l'implication directe des usagers, celles-ci tendent globalement à sous-estimer l'hétérogénéité des situations d'usage – en particulier les plus contrariées – voire même à invisibiliser une partie des individus, peu ou pas connectés.¹¹

Ces biais sont notamment visibles dans les méthodes basées sur la captation de traces numériques d'usagers des services en ligne. Alors que cette technique de traçage vise précisément à saisir les comportements réels des publics-cibles en vue d'améliorer les services concernés, elle occulte paradoxalement les pratiques de ceux qui sont peu ou non connectés. Or, ce biais de représentativité ne semble pas soulever de questionnements majeurs de la part des acteurs interrogés. Ce constat met à jour une forme de déni de

¹⁰ Voir : Daniel COMPAGNON et Arnaud SAINT-MARTIN, *La technique : promesse, mirage et fatalité*, in *Socio*, n°12, 2019, pp.7-25. En ligne : <https://journals.openedition.org/socio/4401>

¹¹ Voir : Périne BROTCORNE, Carole BONNETIER et Patricia VENDRAMIN, *Une numérisation des services d'intérêt général qui peine à inclure et à émanciper tous les usagers*, in *Terminal*, 2019, pp. 125-126. En ligne : <https://journals.openedition.org/terminal/4809>

reconnaissance¹² – au moins non intentionnelle – des individus silencieux en ligne, pourtant tout aussi usagers que les autres desdits services. En plus de la mise à distance effective des comportements des publics peu ou pas connectés par ces techniques, le manque de reconnaissance d'un tel biais par les professionnels mène à l'exclusion symbolique des individus «en mal d'autonomie numérique».

Un contexte de dépendance numérique et ses exigences implicites

Au nom de l'optimisation des services d'intérêt général, la numérisation des relations administratives entend donc réduire les charges administratives qui pèsent sur les épaules des usagers. Or, en imposant le numérique comme vecteur principal, voire progressivement unique, pour accéder aux services, elle décharge sur l'individu une responsabilité : celle de s'équiper et d'être en capacité de maîtriser les technologies numériques. Autrement dit, ce contexte de «*dépendance numérique*»¹³ – traduisant l'idée d'une société entièrement soumise à l'usage des outils numériques – conditionne implicitement l'accès aux services à une «*contre demande technologique*»¹⁴.

Ce contexte d'obligation progressive de connexion pose alors la question du risque de marginalisation d'une partie de la population qui n'est pas en mesure de répondre aisément à cette nouvelle «norme administrative» dominante. Ce faisant, l'avènement d'un environnement dans lequel les services quotidiens sont d'abord configurés pour des individus supposés être utilisateurs des technologies génère «de facto» des inégalités entre ceux effectivement capables de tirer correctement parti de leurs usages et

¹² Voir : Nancy FRASER, *Justice sociale, redistribution et reconnaissance*, in *Revue du MAUSS*, n° 23, 2004/1, pp. 152-164. En ligne : www.cairn.info/revue-du-mauss-2004-1-page-152.htm

¹³ Margot BEAUCHAMPS, *Espace urbain et stratification sociale*, in *Classes sociales 2.0*, n°1, Recherches en sciences sociales sur Internet, 2012, p.1. En ligne : <https://journals.openedition.org/reset/139>

¹⁴ Pierre MAZET, *Conditionnalités implicites et productions d'inégalités : les couts cachés de la dématérialisation administrative*, in *La Revue française de service social*, vol. 264, n°2, 2017, pp. 41-47.

les autres. Comme insiste à juste titre Pierre Mazet¹⁵, les normes sous-jacentes à la numérisation généralisée des services mettent les individus en incapacité de demander leurs droits. En ce sens, c'est moins l'environnement numérique en soi que son caractère incontournable qui contribue à produire de l'exclusion. Ce risque est d'autant plus accru que l'imposition du format numérique dans les relations administratives s'accompagne bien souvent d'une suppression progressive des alternatives physiques où les médiations humaines permettent l'oralité comme mode de communication privilégié.

Cette injonction à «l'activation numérique» comporte de nombreuses exigences, souvent minimisées par les acteurs en charge de la conception des services numériques. En plus d'exigences matérielles et financières liées à la connexion, la «mise en conformité» des individus avec les normes administratives actuelles leur impose de développer de multiples compétences. Celles-ci sont, certes, d'ordre informatique et numérique (maintenance du matériel, mise à jour des logiciels, gestion de sa boîte mail, capacité de navigation, compréhension de l'architecture d'un site, etc.), mais aussi d'ordre administratif (procédures d'identification, gestion de ses données et de ses mots de passe, compréhension des procédures et du vocabulaire administratif, etc.). De plus, on l'oublie trop souvent, la capacité à lire et à écrire correctement, et plus globalement celle à développer un rapport décomplexé à l'écrit, constitue un prérequis indispensable pour échanger avec les fournisseurs de services en ligne, lesquels privilégient de loin l'écrit dans leurs interactions avec les administrés.

Des inégalités des chances aux inégalités d'accès aux droits

Si la question des inégalités numériques est loin d'être nouvelle, le mouvement d'accélération de la numérisation des services d'intérêt général déplace néanmoins ses implications sociales. Alors que les disparités dans l'accès et l'usage des technologies posaient des questions de discrimination en termes

¹⁵ Voir : Pierre MAZET, *Vers l'État plateforme. La dématérialisation de la relation administrative*, La Vie des idées, 2 avril 2019. En ligne : www.laviedesidees.fr/Vers-l-Etat-plateforme.html

de participation à la vie sociale, elles soulèvent désormais des questions inédites d'inégalités d'accès aux droits sociaux, et ce aux dépens des populations les plus fragiles sur le plan socioéconomique et culturel. Nombre d'enquêtes soulignent en effet depuis longtemps que les personnes moins autonomes dans leurs usages des technologies numériques sont généralement plus pauvres, moins diplômées et plus isolées que les autres; la vulnérabilité numérique épouse ainsi de près les formes de la vulnérabilité sociale.

Les conséquences de cette numérisation « par défaut » sont par ailleurs aussi palpables au sein du monde associatif, en particulier dans les secteurs de la médiation numérique et de l'action sociale. On manque encore aujourd'hui de données scientifiques solides à cet égard en Belgique. Néanmoins, de plus en plus de voix s'élèvent sur le terrain pour dénoncer la perte d'autonomie des usagers que génère la numérisation des services publics, en particulier sociaux. Les acteurs de première ligne pointent aussi leur malaise face à une forme d'institutionnalisation de la dépendance numérique des usagers à laquelle ils participent pourtant, lorsqu'ils font les démarches en ligne « à la place » du bénéficiaire/apprenant.

Bien que ce processus de marginalisation par le numérique résulte davantage d'un impensé des choix technologiques retenus que de politiques délibérées d'exclusion sociale, il constitue un réel enjeu pour les organismes d'intérêt public et les appelle à prendre leur responsabilité. Ceci suppose que les institutions placent au cœur de leur stratégie de numérisation le principe « d'inclusion par la conception et le design » tout en assurant le maintien des médiations humaines et des modalités d'accès variées aux services publics. Tant que cela ne sera pas explicitement le cas, la numérisation des services d'intérêt général, censée simplifier le parcours d'accès aux droits, participera paradoxalement à éloigner encore davantage les publics vulnérables de leur accès effectif aux droits sociaux fondamentaux.

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Sur la question des TIC, la crise sanitaire générée par la pandémie COVID-19 a joué un rôle d'accélérateur. Ce qui était pour nous une des priorités est devenue centrale. Les outils numériques qui soutiennent notre démarche d'alphanumerisation populaires restent en grande partie à inventer... Pour alimenter ce travail de conception pédagogique, vous trouverez dans ce numéro plusieurs articles relatant des pratiques et innovations. Ce *Journal de l'alpha* rassemble également des contributions visant à connaître davantage l'accès et les usages aux TIC par des adultes peu scolarisés et/ou en difficulté avec l'écrit. Il propose aussi des réflexions critiques sur ce monde de plus en plus numérisé.

La crise sanitaire risque également d'accélérer le processus de numérisation des services publics, « impensé » pour les publics les plus éloignés... Si nous sommes « en chantier » concernant les TIC, cela n'empêche pas de travailler au cœur de nos enjeux fondamentaux : créer des opportunités pour permettre aux personnes en situation d'illettrisme / d'analphabétisme d'être acteur à part entière de l'évolution digitale et porter avec d'autres l'exigence politique de la prise en compte de ces personnes dans la transition numérique.

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No One-Size Fits All! Eight profiles of digital inequalities for customized inclusion strategies

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Manuscript Type:	Special Issue: Vulnerable
Keywords:	digital inequalities, digital inclusion, digital exclusion, social inclusion, social exclusion, vulnerability, digital divide, social support
Abstract:	This article presents a renewed conceptual model that explains and explores the extent to which various (non)-users can be subjected to mechanisms of inclusion or exclusion. The model consists of eight profiles of digital inequalities, ranging from deep inclusion to deep exclusion, and based upon a combination of five key indicators at the social level (income, education, social participation, agency, wellbeing) and eight key indicators at the digital level (access, attitudes, digital skills, soft skills, media richness of the environment, autonomy of use, user practices and social support). This conceptual model, by going further than a sole focus on economic or demographic factors, allows the formulation of an alternative lens through which to look at mechanisms of inclusion and exclusion. Moreover, these eight profiles bring a significant contribution to existing research by highlighting the co-action of social and digital indicators in mechanisms of inclusion and exclusion.

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Abstract

This article presents a conceptual model that explores the extent to which various (non)-users can be subjected to mechanisms of inclusion or exclusion. The model consists of eight profiles of digital inequalities, ranging from deep exclusion to deep inclusion, and based upon a combination of five key indicators at the social level (income, education, social participation, agency, wellbeing) and eight key indicators at the digital level (access, attitudes, digital skills, soft skills, media richness of the environment, autonomy of use, user practices and social support). This conceptual model allows the formulation of an alternative lens through which to look at mechanisms of inclusion and exclusion. Moreover, the eight profiles bring a significant contribution to existing research by highlighting the co-action of social and digital indicators in mechanisms of inclusion and exclusion.

Keywords

digital inequalities, digital inclusion, social inclusion, digital exclusion, social exclusion, vulnerability, digital divide, customised inclusion, profiles, social support

1 2 3 4 5 1 Introduction

6 Since it became clear that the internet was to play a significant role in all aspects of life, general concerns
7 about inequalities related to ICTs have grown in policy and academic circles. Digital exclusion became a
8 steady point in this debate in the late 90s on the observation that access to, and use of technologies were
9 not distributed equally. Consequently, significant portions of the population were excluded from the
10 opportunities provided by the internet. It was then common to conceptualize these differences as a divide
11 between those with access to ICTs and those without access (DiMaggio et al., 2001). Over the last decades,
12 the study of digital exclusion has shifted from the traditional dichotomy — access versus no access — to a
13 recognition that exclusion a complex and multifaceted phenomenon (van Dijk, 2005, 2012) determined by
14 factors such as social support networks (Asmar et al., 2020), participation in society (Mariën and Baelden,
15 2015) or the role of life stages (Faure et al., 2020). Yet, it remains no longer clear how all these elements
16 relate to one another and influence — in a positive or negative way — a meaningful inclusion in the digital
17 society. Moreover, despite the fact that digital exclusion is recognized as a multifaceted phenomenon, its
18 root causes are still too easily brought back to socio-demographic factors such as income or education. As
19 such digital exclusion is often correlated with social exclusion, assuming too readily that low social and/ or
20 economic capital automatically supposes low digital inclusion.

21 However, we argue that such an approach is problematic for two reasons. 1) Exclusion is presented as a one
22 way street: once in situation of deprivation, users will keep on being deprived and pushed further out on the
23 edges of society. Meanwhile, the inclusion of groups or individuals living in advantageous conditions seems
24 to be taken for granted (Levitas et al, 2007). 2) By perceiving exclusion and vulnerability as a matter of
25 demographics, such an approach fails to critically discuss the structural and situational factors that render
26 specific individuals and groups more vulnerable to exclusion (Castel, 1995; Finneman, 2017). To be clear,
27 we are not dismissing the importance of socio-demographics when looking at mechanisms of inclusion and
28 exclusion; rather, we advocate for a nuanced approach with regards to the different factors — besides
29 income or education — having a strong influence on said mechanisms. Ultimately, exclusion is the product
30 of a given social system (Abric, 1996). Hence, it is not merely a matter of identity or socio-demographics;
31 instead, it is perhaps primarily a failure of society and its institutions to integrate individuals to the social
32 entities through which they lead their lives (Byrne, 2005; Finneman, 2017).

33 Therefore this article presents a renewed conceptual model that explores the extent to which various (non)
34 users can be subjected to mechanisms of inclusion and exclusion. The research questions behind the model
35 are simple: A) what additional factors, besides socio-demographic characteristics, determine the risks of
36 digital exclusion? B) How do these factors relate to and influence each other? The model consists of eight
37 profiles of digital inequalities ranging on a continuum from deep exclusion to deep inclusion. The model is
38 based on a combination of five key indicators at the social level (income, education, social participation,
39 wellbeing, agency), and eight key indicators at the digital level (access, attitudes, digital skills, soft skills,
40 autonomy of use, media character of the environment, user practices, social support).

41 The model first brings significant contribution to existing research by highlighting the co-action of social
42 and digital factors. By going further than a sole focus on socio-demographic indicators, this conceptual
43 model provides an alternative lens through which to look at mechanisms of inclusion and exclusion. Second,
44 this model is also relevant at a societal level. Next to the theoretical insights, it is a call to action for civil
45 society organisations and policy makers alike to help build customized digital inclusion strategies in light
46 of the needs of each profiles. Accordingly the model can serve as a tool for civil society organisations and
47 policy makers to 1) help and support those already living in vulnerable conditions; 2) detect in a proactive
48 manner the indicators susceptible of putting people at risk of exclusion in the long run.

Hence, the rest of the article is structured as follow: in section 2 we examine how the link between social and digital exclusion has been conceptualized within digital inequalities studies. In section 3, we discuss the limitations of current conceptualizations and their implications for individuals and groups living in vulnerable conditions. In sections 4 and 5, we develop our conceptual model and present the eight profiles of digital inequalities. In section 6 we discuss the theoretical and societal implications of said model.

2 Digital exclusion: A vicious circle?

The digital divide has been traditionally conceptualized as the gap between individuals, households, and geographic areas at different socio-economic levels. This gap refers both to their opportunities to access ICTs, and their actual use of internet for a wide array of activities (Hüsing and Selhofer, 2004). This approach documents the spread of the internet across the population and has focused on the differences between those who have access to the internet and those who do not (Hargittai and Hinnant, 2008). However, as more people started using the internet, research showed that the mere attention to binary classification was not helpful when discussing access to technology. Rather, more attention ought to be paid to the differences in how those who are online access and use technologies (Atwell, 2001; DiMaggio et al., 2004; Selwyn, 2004; Warschauer, 2003). As such, Hargittai (2003) coins the term ‘digital inequalities’ to better encompass the different dimensions along which differences persist even after material access has been provided. Digital inequalities designate thus not just differences in access, but also inequalities *among* those who have access to the internet.

Yet, the term digital inequalities also prompted research to look closely at the divides among social groups with the argument that individuals or social groups excluded from using ICTs will automatically be excluded from the benefits that ICTs can bring (Selwyn, 2004). As such, the debate on inequalities started to delve further into understanding how the socio-economic status of individuals yields different effects with regard to access to and use of the internet (Zillien and Hargittai, 2009). The term digital exclusion hence came to define *‘the lack of access to ICTs and the lack of skills needed to use them’* (Punie et al., 2009: 97). This specific form of exclusion came to be seen on the one hand as a result of existing forms of social exclusion, and on the other hand, as a factor likely to aggravate other dimensions of social exclusion (Brants and Frissen, 2003).

According to digital inequalities scholars (Haddon 2000; Van Dijk, 2005; Selwyn, 2006; Zillien and Hargittai, 2009; Witte and Mannon, 2010), the unequal use of and access to the internet tends to reproduce existing social divisions in terms of gender, race or even class. For Witte and Mannon (2010), as technologies become ubiquitous, they have taken on the values of society at large — namely competition, status and hierarchy — and have reproduced these patterns in the online realm. Henceforth, users run the risk of being excluded by factors outside their control such as material (i.e. income) or cultural resources, that is the social assets (e.g. taste, education, knowledge) that promote social mobility (Levitas et al., 2007; Warren, 2007). Scholars of digital inequalities point out that as social exclusion reinforces digital exclusion, so does digital exclusion exacerbates social inequalities thus creating a vicious circle (Warren, 2007; Helsper, 2012). This suggests that groups already in situation of social exclusion — that is individuals pushed to the margins of society by virtue of their poverty, lack of competencies, or as a result of discrimination (European Union, 2010) — could suffer further marginalization if unable to use and/ or access digital technologies (Van Dijk, 2005, Warren, 2007; Witte and Mannon, 2010). It is echoed by Hargittai and Hinnant (2008) asserting that ICTs can exacerbate existing social inequalities by increasing the opportunities available for the already privileged, while marginalizing further those already disadvantaged.

This resonates further with the fact that, as key aspects and services of everyday life now happen online (Townsend, Salemink and Wallace, 2020), high levels of access and skills become necessary to function fully in society as citizens. Put differently, linking social exclusion to digital exclusion puts an emphasis on how the non-access and/or non-use of digital technologies could deny segments of the population membership in society (Room, 1995). Particularly, Frissen (2000) argues, those already in situation of social exclusion run the risk of becoming pariahs in the digital society as their lack of economic, cultural or social resources prevents them from reaping the benefits of ICTs, and reinforces their existing social and digital disadvantages. Such perspective suggests that once mechanisms of exclusion have occurred in one area of life, they are likely to accumulate in other areas of life (Helsper, 2012). Therefore, digital inequalities studies have put more efforts in focusing on the inclusion of vulnerable and socially excluded groups (Selwyn, 2004; Gilbert, 2010; Salemink, 2016).

However, most research on digital inequalities only offer snapshots of how digital and social exclusion are related (Goedhart et al., 2019); as a result, the link between social and digital exclusion continue lacking sufficient theorizations (Helsper, 2012). Moreover, even when conceptual models exists, the roots causes of such mechanisms are still too easily brought back to socio-demographic factors such as education or income. Therefore, before presenting our model we outline the limitations of current theorizations of digital exclusion to highlight why a more nuanced approach is needed.

3 Being at-risk in the digital society: a clear cut picture?

Vulnerability indicates the propensity to be wounded (Stasett, 2007) and refers to exposure to external risks. Those risks can be more or less predictable, but they inevitably threaten individuals' acquisition of the necessary resources for their subsistence (Martin, 2019). Yet, while by virtue of our humanity we are all exposed to situations of risk, some individuals are *made* more vulnerable than others (Coeckelbergh 2013). In other words, although we all share the propensity to be wounded, some groups or individuals are disproportionately exposed to harm and risk. Coeckelbergh (2013) even adds that when it comes to vulnerability we are not born equal. Factors such as education or income play an important role in giving individuals power to mitigate and transform their vulnerability. Hence, because the propensity to be wounded is not equally distributed, it implies a need to protect the more vulnerable from situations that put them at risk. Vulnerable groups or individuals may thus be those individuals and/ or communities who are relatively isolated or without resources, who lack the capacity or the capability to participate in society (Aspinall, 2014).

Since digital exclusion is closely related to social exclusion, socio-demographic factors play a great role in defining those at risk of digital exclusion. Segments of the population that are most likely to be excluded are usually defined in terms of age, gender, ethnicity, education or income (Levitas et al., 2007). Several digital inequalities scholars (Atwell, 2001; DiMaggio et al., 2004, Van Dijk, 2005, 2012) argue that individuals who have access to ICTs tend to have higher education and higher status occupation than those who do not have access. Furthermore, low education, disability or age are said to reduce the likelihood of high level access or skills (Van Dijk, 2005; Van Deursen and Van Dijk, 2010). A recent report highlights the fact that seniors, individuals with low education levels, low income, and to a certain extent women, are more likely to have low motivation to use digital technologies, more likely to have poor equipment quality at their disposal, more likely to have lower levels of digital skills, and a more limited use of the internet (Van Deursen, 2018).

While not dismissing the results of the aforementioned studies, we argue against the fact that discussions on digital exclusion take socio-demographic factors as start and end point of any conceptualizations. We contend that such approach presents two main limitations. 1) Exclusion is a one way-street: once in situation of deprivation, individuals keep on being further deprived; 2) such approach focuses on *states of deprivation* (e.g. lack of material equipment), instead of equally addressing the more structural processes leading individuals to such states.

3.1 Inclusion-Exclusion: a one-way street?

The prevailing conceptualization of mechanisms of inclusion-exclusion poses that those excluded at the social level are also more likely to be excluded at the digital level. This approach we argue, tends to see inclusion - exclusion as a one way-street: once in situation of deprivation, users will keep on being deprived. The reverse is equally implicit: once in situation of abundance, users will keep on taking advantage of their resources. This conceptualization has tremendous implications as to how included and excluded are understood and researched. Within this view, the ‘rich’ — those with the resources at the social and/ or digital level — are discursively absorbed in the ‘included’ majority, while the ‘poor’ — those without resources — seem to automatically fall back into the excluded minority. In so doing, such approach draws attention away from the differences existing *among* the ‘included’ that also put them at risk of becoming digitally excluded. Recent research (Mariën and Baelden, 2015; Faure et al., 2020; Asmar et al., 2020) shows that some ‘rich’ individuals (e.g. high income), due to biographical ruptures (e.g. retirement) can refuse to engage with the digital and become potentially at risk of exclusion. Looking closely at marginalized groups such as Gypsy travellers, Salemink (2016) and Townsend et al.(2020) show that current conceptualizations of digital exclusion mechanisms are not always appropriate for such groups. Salemink’s research (2016) shows that social exclusion does not necessarily precludes vulnerable groups such as Gypsy travellers from taking advantage of the digital. Socially excluded groups can become digitally engaged and develop their digital skills despite their social precarity. Research conducted in Flanders (Belgium) by Schurmans et al. (2013) yielded similar results and showed that youngsters living in vulnerable conditions had very high levels of digital skills and exhibited a diversified use of digital media.

3.2 Inclusion-Exclusion: going further than demographics?

By addressing mechanisms of inclusion and exclusion from the sole perspective of socio-demographics, exclusion becomes the condition of a few — *The poor*, *The lower educated* — instead of being recognized as a structural form of inequality (Levitas, 2005; Gilbert, 2010; Salemink, 2016). While not denying the importance of socio-demographics factors, we rather contend that this focus tends to overemphasize *states of deprivation* (e.g. lack of access), rather than 1) looking into the processes and factors that trigger such states, and 2) examining how different processes and factors influence one another in the generation of said states. We argue that this overemphasis on states of deprivation, without equal attention to the processes leading to such states can be counter effectual for the strategies designed to alleviate those at risk of exclusion. As pointed out by Mariën and Prodnik (2014), the positive impact of digital inclusion on social inclusion can be limited by the fact that, despite these strategies, inequalities continue to be reproduced at a wider social level, feeding again into mechanisms of exclusion. In the same vein, Castel (1995) warns that exclusion is too often used as a catch-all term to cover a variety of situations, but fails to position these situations in their proper contexts and ignores the structural processes fostering exclusion in the first place.

1 Looking specifically at vulnerable groups, the emphasis on socio-demographics, by assigning the term
2 ‘vulnerable’ only to certain groups, helps perpetuate the myth that the digital and social inclusion of those
3 outside this category is a given (Finneman, 2017). Put differently, perceiving vulnerability as determined
4 by socio-economic factors forgoes the structural and situational factors that *render* specific groups or
5 individuals vulnerable. Therefore, we refute Coekelbergh’s assertion (2013) according to which we are born
6 unequal when it comes to vulnerability. We argue instead that vulnerability is universal (Finneman, 2017):
7 we all share the same propensity to be wounded. However, the resources allocated to mitigate such
8 propensity to harm are unevenly distributed. This results in situations where the vulnerability of some
9 segments of the population is rendered more visible than that of others. Hence, understanding how this
10 unequal distribution of resources unevenly affect segments of the population requires developing
11 approaches addressing the distinct institutions and relationships playing a role in the reproduction of such
12 inequalities.

13

14 **4 No-one size fits all: 3 research lines**

15

16 Our model proposes an answer to the limitations outlined above in the following way. First, instead of
17 pitting exclusion against inclusion, we put both concepts on equal footing. Inspired by the work of
18 Livingstone and Helsper (2007), and Castel (1991, 1995), we develop a continuum ranging from deep
19 exclusion to deep inclusion. The continuum takes a graduated approach and allows to capture the dynamic
20 nature of mechanisms of inclusion and exclusion. Second, we go further than socio-demographics factors
21 by combining social *and* digital indicators in the model. This model allows the development of customized
22 digital inclusion strategies based on the detection of the most prominent indicators.

23 In the following part we present in a first time the three research lines at the heart of the model. The three
24 research lines are the product of research conducted over the course of seven years in Flanders (Belgium).
25 In a second time, introduce the eight profiles of digital inequalities which are the based on the results of the
26 three research lines.

27

28

29 **4.1 Research line 1: A classification of the characteristics of social and digital**

30 *inequalities*

31

32 The first research line comprises a classification of the different determinants of social and digital
33 exclusion. This classification, inspired by the work of Bourdieu (1986) and Helsper (2012), is divided
34 across five types of resources that individuals have at their disposal and that we define as follow:

35

36 **Figure 1 here: Five types of resources**

37

38 Per type of resources we identify several risk factors associated with social and digital exclusion. These risk
39 factors are subsequently thematically clustered (Tables 2-6 below). The emphasis lies on identifying the
40 factors leading individuals to find themselves in a disadvantaged position. This thematic clustering has
41 been realised based on an extensive literature study spanning across several disciplines (social inequalities,
42 communication sciences, sociology, political sciences, etc.); it has further been substantiated through the
43 integration of the results of several digital inclusion projects over the course seven years.
44

1 Table 2 below presents the clustering of risk factors associated to the personal resources.
2

3 **Figure 2 here: Personal resources**

4 Table 3 below presents the clustering of risk factors associated with the social resources.
5

6 **Figure 3 here: Social resources**

7 Table 4 below presents the clustering of risk factors associated with the cultural resources
8

9 **Figure 4 here: Cultural resources**

10 Table 5 below presents the clustering of risks factors associated with the economic resources.
11

12 **Figure 5 here : Economic resources**

13 Table 6 below presents the clustering of risks factors associated with the political resources.
14

15 **Figure 6 here: Political resources**

16 **4.2 Research line 2: on the relation between social and digital exclusion**

17 The second research line goes deeper into the concrete conceptualization of mechanisms of social and
18 digital exclusion. In the first research line, we developed an extensive overview of the factors having a
19 decisive influence within each type of resources. In this second research line, we map the dynamic interplay
20 of these factors across the five resources using the subsequent colours:
21

- 22
- 23 - Blue: the risk factors of social and digital exclusion have an indirect influence on each other. In
24 other words there is not a direct cause-effect relation between different risk factors, but well an
25 indirect impact on the social or digital situation.
 - 26 - Black: the impact of the risk factors is mostly felt at the level of social exclusion. The impact at
27 the digital level depends on the interwovenness with other social and/or digital risk factors.
 - 28 - Green: mechanisms of social exclusion lead directly to digital exclusion.
 - 29 - Red: mechanisms of digital exclusion lead directly to social exclusion.

30 **Figure 7 here: Dynamics of social and digital exclusion**

31 Indirect relations refer to these risk-factors that, while having an influence on both social and digital
32 exclusion, manifest themselves differently within each field. They generally relate to policy-related risk
33 factors. In that regard, four main risk factors are at play at both social and digital levels: 1) impact of
34 regulatory frameworks, 2) public service infrastructures, 3) social rights and 4) wellbeing. For instance,
35 wellbeing at the social level is characterised by a lack of availability, access to care and support
36 infrastructures ; it refers also to the quality of care provided to individuals subject to substance abuse or
37 chronically ill (Jehoel-Gijsbers and Vrooman, 2007; Warren, 2007; Mariën et al., 2016). At the digital level,
38 wellbeing refers to a lack of usability standards, or a lack of available and affordable adaptive technologies
39 (Mariën et al., 2016). Although at both levels wellbeing as risk factor points out to the specific needs and
40 requirements of individuals dependent on the care of others, there is no direct cause-effect relation. This
41 means that the lack of care at the social level for instance is no direct cause to the lack of available adaptive
42 technologies at the digital level. The same applies to the other three risk factors.
43

1 technologies. However, there exists an indirect relation. For example, a better regulation of usability
2 standards and adaptive technologies could significantly enhance the care and support infrastructures at the
3 social level; this would provide solutions to the direct ICTs-barriers that prevent individuals with special
4 needs to fully participate in society.

5 Direct relations between social and digital exclusion are two-fold: on the one hand, social exclusion
6 mechanisms are transferred to the digital field; on the other hand, digital exclusion mechanisms reinforce
7 existing processes of social exclusion.

8 Based on the classification of research line 1, we identify the following risk-factors at the social level that
9 are transferred or amplified at the digital level:

- 10
- 11 - Skills: referring to cognitive and social skills, language and education;
 - 12 - Financial strength: i.e. employment, income;
 - 13 - Social support networks;
 - 14 - Socio-spatial inequalities;
 - 15 - Self-determination: i.e. agency, participation.

16 We posit a direct relationship insofar as, at the social as well as the digital level, these risk-factors present
17 the same characteristics; put differently, there is a direct transfer or cause-effect relation from one field to
18 the other. For example low levels of self-esteem, low communication skills impede interactions in daily life
19 but also with ICTs. Such limitations are often linked with what Van Dijk (2005) calls ‘button anxiety’ or
20 the fear that arises when having to deal with ICTs. Moreover, low levels of agency can slow down the
21 autodidact development of digital skills through trial-and-error or hamper one’s autonomous progress with
22 ICTs (Van Dijk, 2005; Haché and Cullen, 2010).

23 Based on the classification of research line 1, we identify the following risk-factors at the digital level that
24 reinforce existing processes of social exclusion:

- 25
- 26 - Cultural characteristics: i.e. age, gender;
 - 27 - Political resources: i.e. regulatory frameworks, public services infrastructures;
 - 28 - Normative injunctions: i.e. values and attitudes, societal norms.

29 This second aspect relates specifically to the rapid and ongoing digitalization of public and private services.
30 The shift towards the ‘digital-by-default’ society (Yates et al., 2015) is increasingly making it mandatory
31 for individuals to use ICTs. This in turn limits individuals’ ability to make free choices and leads to
32 increasing user disempowerment (Crang et al., 2007; Mariën and Prodnik, 2014; Mariën et al., 2016). Those
33 who do not want to, or are unable to use ICTs are progressively excluded from societal services such as
34 education or employment (Mariën and Prodnik, 2014; Yates et al., 2015). Those living in rural and/or distant
35 areas with limited digital connection experience increasing difficulties to access the services they need
36 (Mariën et al., 2016). Their physical remoteness coupled with limited connections to the digital in their
37 areas suggests that they are increasingly placed in situations where they become potentially vulnerable to
38 social and digital exclusion.

4.3 Research line 3: towards a continuum from deep exclusion to deep inclusion

The third research line comprises a re-working of the classification of Milliband (2006) from social exclusion to a continuum of digital and social exclusion. The original classification of Milliband (2006) comprises three levels, namely: a) wide social exclusion; b) concentrated social exclusion; and c) deep social exclusion.

Figure 8 here: A classification of social exclusion by Milliband (2006)

Research line 2 showed that the relationship between social and digital inequalities is not always straightforward: socially excluded groups can be digitally included, and socially included groups can equally be digitally excluded. To provide a comprehensive view of mechanisms of inclusion and exclusion it is necessary to analyse social and digital inequalities across a full continuum from deep exclusion to deep inclusion. Therefore, we expand below the classification of Milliband (2006) to five levels related to the social and digital fields.

Figure 9 here: Continuum from deep exclusion to deep inclusion

The emphasis here is put on a specific number of thresholds elicited by the previous two research lines, the degree to which said thresholds are intertwined, the degree of social and digital participation, and the degree of self-reliance and self-management available to overcome these thresholds.

5 No- one size fits all: 8 profiles of digital inequalities

The three research lines above have provided different insights and perspectives with respect to the understanding of mechanisms of inclusion and exclusion. Moreover they have also highlighted the fact different contextual factors — e.g. social support, well-being— have an impact on said mechanisms. However, such exercise still does not make clear which individuals or segments of the population are the most at risk of exclusion. In this framework, we elaborate a profiling of the groups/individuals at risk of exclusion based on the three research lines discussed in the previous chapter.

In a first instance, we make a selection of the most important indicators having a decisive influence on mechanisms of inclusion and exclusion. The identification of the indicators, together with the development of the tree conceptual lines is based on the results of seven years of research in the field of digital inclusion. We identify namely five indicators at the social level and eight indicators at the digital level.

Figure 10 here: 13 at-risk indicators

1
2
3 Second, based on results of research line 1, the impact of each indicators is identified for each level of the
4 continuum (research line 2), giving for example the following result:
5
6

7 **Figure 11 here: 13 indicators on a continuum from deep exclusion to deep inclusion**
8

9
10 Finally, the characteristics of each indicators are tested against the dynamic interplay of mechanisms of
11 social and digital exclusion mapped out in research line 2 (Table 7). From this, eight profiles of digital
12 inequalities emerge. The name of each profile has been chosen with governments and civil society
13 organisations in mind. Indeed, for such institutions, easily identifiable profiles are important in order to a)
14 effortlessly recognize the difficulties of each individual and b) swiftly implement policies and strategies
15 based on these difficulties.

16 In the following section, we describe in-depth the different characteristics of each profile.
17

18 **5.1 Profile 1: Digital Outcasts**
19

20
21 Individuals in this profile are in situations of deep social and digital exclusion. They are confronted to
22 multiple difficulties at the social level (i.e. low income, unemployment). They are also confronted to
23 multiple obstacles at the digital level: limited to no access to digital media, low quality equipment, lack of
24 autonomy. These social and digital barriers perpetuate and reinforce each other continuously; they are
25 strongly intertwined and cannot be bridged by the individual alone. Without support, individuals in this
26 profile are increasingly being pushed to the edges of society and made increasingly vulnerable to exclusion.
27

28 **5.2 Profile 2: Hopelessly Undigital**
29

30 Individuals in this profile face wide social exclusion, that is to say that they experience multiple obstacles
31 impeding their participation in society. These individuals try to keep up with the constant digital evolutions
32 but their social situation makes it difficult for them to succeed. Moreover, their societal participation is very
33 limited. While they can occasionally use digital media, they seldom succeed doing so in an autonomous
34 manner. Besides, increasing and diversifying their media use is complicated by the fact that they lack
35 opportunities and social support in their environment. They rarely use digital media for job-related purposes
36 and live mostly in a media-poor environment. They experience the use of digital media as an obligation and
37 have the feeling that they are increasingly becoming socially excluded because of the far-reaching
38 digitalization of society.
39

40
41 **5.3 Profile 3: Digital Fighters**
42

43 Individuals in this profile are in situation of concentrated social exclusion; this means that they are socially
44 included in several life domains but remain excluded from others. For example, women who are socially,
45 culturally and politically included, but who are economically excluded because of a limited participation in
46 the job market. With regard to digital media, we distinguish two large groups:
47
48
49

- 1 a) Individuals who experience wide digital exclusion and thus face multiple barriers such as lack of
2 skills, self-confidence or access. These individuals have the motivation to use digital media.
3 Nevertheless, keeping up with the digital evolutions is a constant struggle as they lack the
4 necessary competences and support to follow the rapid innovation cycles in an autonomous way.
5
6 b) Individuals who experience concentrated digital exclusion and thus face very specific barriers. For
7 instance they can lack digital skills despite the good quality of their equipment, the motivation to
8 use technology and the necessary opportunities to use digital media. Dealing with digital media
9 remains difficult because they have to rely strongly on their support networks. As such, they are
10 at great risk of shifting to Profile 2, Hopelessly Undigital.

11
12 **5.4 Profile 4: Smoothly Digital**

13
14
15 Individuals in this profile experience wide social and digital inclusion. Their use of digital media is guided
16 by their daily needs; therefore, this profile comprises both heavy and low users. They have different usage
17 patterns depending on what they want or need to achieve. Individuals in this profile do what they can to
18 stay up to date with the digital evolutions but will mainly use digital media in a very functional manner.
19 They do not question the digitalization of society and display generally low motivation to use technology.
20 They trust their ability to communicate clearly with others and have overall good problem-solving skills.
21 However, they still need a bit of time to learn new skills and can be at risk of exclusion once their social
22 support networks disappear or if their living conditions change (i.e loss of job). Yet, these individuals also
23 succeed in continually strengthening the way they deal with digital media because of the various resources
24 of, and learning opportunities in their environment. They are further a regular source support for the users
25 in their environment.
26

27 **5.5 Profile 5: Digital All-Stars**

28
29 Individuals in this profile are deeply socially and digital embedded. They participate in all life domains and
30 experience no obstacles in their use of digital media. They use all kinds of technologies in an autonomous,
31 strategic and creative manner. They learn by doing (i.e. trial and error) and, being often highly educated
32 with high incomes, they have access to digital media anytime, anywhere. They form the social support
33 networks of users in their environment, but do not necessarily enjoy taking this role as it can be quite time
34 consuming, and without added value for them. They take part in all forms of technological innovations and
35 have the skills necessary to challenge these systems.
36

37 **5.6 Profile 6: Unexpected Digital Masters**

38
39 Individuals in this profile come from various socio-demographic backgrounds (i.e. people in poverty,
40 elderly, low educated). The determining factor is that, in contrast to their peers, individuals in this profile
41 fully engage with digital media. In other words, their socio-economic and cultural backgrounds have little
42 to no negative influence on their digital engagement. They may be confronted to one or two very specific
43 barriers at the digital level — i.e. lack of home access — but manage to bypass these difficulties by falling
44 back on their social networks and/ or making use of public computer rooms. They display high motivation
45 to use digital media and to learn by doing. They are continuously experimenting with technology, use digital
46 media and develop their skills in an autonomous way; besides, they very often provide support to their peers
47 with less digital skills.
48

5.7 Profile 7: Unexpected Digital Drop-Out

These individuals come from various socio-demographic backgrounds (i.e. middle class families, young people, highly educated). The determining factor for these individuals is that, in contrast to their peers, they are experiencing various problems when using digital media. In other words, their socio-economic and cultural backgrounds have little to no positive influence on their digital media use. Despite the presence of support networks in their media-rich environment, individuals in this profile generally avoid dealing with digital media; they do not manage to develop their digital skills and usually display low motivation to engage with digital technologies. Besides, lack of self-confidence and soft-skills constitute an important barrier for this group: button anxiety (Van Dijk, 2005) is a very common problem within this profile.

5.8 Profile 8: Digitally Self-Excluded

Individuals in this profile come from all socio-economic backgrounds, regardless of the degree of social or digital exclusion. They participate in all life domains and are generally satisfied with their living conditions. What sets this group apart is that individuals in this profile generally have access to digital media and possess the necessary skills to use technology, but they do not see the utility of using digital media. However, individuals in this profile make extensive use of proxy-users to use digital media or access services only available digitally, yet can rapidly find themselves in vulnerable situations once their social network disappears.

Figure 12 here: 8 profiles of digital inequalities

6 Discussion and conclusion

In this last section we explore the broad theoretical and societal implications of our model. The profiling exercise has allowed us to provide a nuanced vision regarding the mechanisms of inclusion/exclusion. Within the 8 profiles, five demonstrate the direct relation between social and digital exclusion — Digital Outcasts, Hopelessly Undigital, Digital Fighters, Smoothly Digital and Digital All-Stars; for the other three profiles — Unexpected Digital Master, Unexpected Digital Drop-Out, Digitally Self-Excluded—, there is no relation between social and digital exclusion.

- Digital Outcasts and Hopelessly Undigital: both profiles are confronted with a multitude of social barriers that are strongly intertwined and negatively impact the digital level;
- Digital Fighters: this profile is less affected socially than the two above, yet still socially excluded at several levels;
- Smoothly Digital and Digital-All-Stars: both profiles are socially included and able to reap the benefits of their inclusion at the digital level;
- Unexpected Digital Master and Unexpected Digital Drop-Outs: refer to individuals whose media use and competencies is at odds with their peers;
- Digitally Self-excluded: this profile comes from all layers of the population but decides consciously not to make use of digital technologies.

Hence, at a theoretical level our conceptual model first shows that the extent to which socio-demographics factors lead to digital exclusion is not straightforward, but determined by a host of additional factors such as soft skills or social support. The model further highlights a) how the social vulnerability of some individuals (i.e. Digital Outcasts) impede their digital inclusion, yet it also demonstrates b) how socially excluded individuals (i.e. Unexpected Digital Masters), despite their social precarity, can manage full inclusion in the digital society, confirming thus the results of Salemink (2016) and Townsend et al. (2020). Moreover, the model makes clear that vulnerability and exclusion are also real risks for individuals with high economic or cultural capital (i.e. Digitally Self-Excluded). Indeed, by focusing on the additional factors — besides income or education — that have an influence on mechanisms of inclusion and exclusion, our model sheds light on the overarching structures (i.e. policies) that render individuals and groups vulnerable to exclusion.

Second, the eight profiles contribute to existing research by a) bringing to the fore indicators having a critical influence on mechanisms of inclusion-exclusion, and b) highlighting their co-action at the digital *and* social level. With millions of people around the globe migrating online in response to enforced lockdowns, our ongoing research on the impact of COVID-19 in Flanders (Belgium) points at the importance of social support as crucial indicator of mechanisms exclusion. In fact, our preliminary results show that the profiles situated at the far left of the continuum — Digital Outcasts, Hopelessly Undigital, Digital Fighters — were the most affected by this online migration. Before the pandemic, these profiles were already experiencing various challenges at the social and the digital level. Yet, as the world moved online to work, socialize and learn, these three profiles appear to have been severely impacted. With computer rooms, public libraries and cultural centres closed during the pandemic, the profiles depending heavily on others to access and use digital technologies have been rendered even more vulnerable to digital and social exclusion. Without access to quality equipment, digital skills trainings or support when experiencing technical difficulties, individuals in these profiles have been left out of virtually every spheres

1 of life. Further than mere technical support, we are starting to see the great role played by the informal
2 support provided by family, friends and/or colleagues. Not only do they bring emotional reassurance during
3 the learning process (Asmar et al., 2020), they are also the source of support that, before social distancing
4 measures, was almost always readily at hand. The isolation generated by these measures affected not only
5 the acquisition and development of the digital skills, but certainly also the emotional and mental wellbeing
6 of the 8 profiles at large, and those at the far-left of the continuum even more.

7 At a societal level and in light of preliminary results, our conceptual model stresses the importance of
8 developing a community-based inclusion strategies that give a key role to civil societies organisations.
9 Being digitally included is too often perceived as matter of individual responsibility (Mariën and Prodnik,
10 2014; Asmar et al., 2020). Yet, the continued importance of social support during the pandemic shows that
11 digital inclusion is an eminently social matter. Therefore, we argue that rethinking inclusion strategies
12 means involving civil society organisations. Indeed, being active in the field, these organisations act as
13 facilitators between society and large and various social groups. Further, we hypothesize that in the
14 aftermath of COVID-19, civil society organisations will be at the frontline to provide support and assistance
15 to populations and individuals who experienced the most difficulties during the lockdowns. Mobilizing
16 these organisations means, at the policy level, that structural funding is needed to allow them to keep
17 functioning even in times of crisis. However, looking specifically at Flanders (Belgium), we observe that a
18 lot is done for the provision of needs — i.e providing access to computer rooms —but not enough is done
19 to prevent such needs from occurring in the first place. Presently, because of uncertain and unlimited
20 funding, civil society organisations can only provide ad hoc solutions to situations of exclusion, but remain
21 unable to address these situations upstream. As rightly explained by Castel (1995), exclusion is the end of a
22 process: there is a need to understand how the specific situations and/ or contexts of individuals can result
23 in exclusion and how to prevent new groups/individuals from falling in said situations. If nothing is done
24 upstream, that is to say if the situations and contexts are not taken into account, fighting exclusion will just
25 result in playing the role of an emergency rapid respond unit: minimizing the tear in the social tissue but
26 without ever developing clear and defined long term strategies (Castel, 1995).

27 Therefore, the eight profiles certainly find relevance at the societal level as they allow civil society
28 organisations and policy makers to directly recognize the situations and contexts in which individuals
29 experience difficulties; furthermore, our model can serve as tool to develop customized inclusion strategies
30 based on needs of each profiles. As pointed out by Castel (1995), we are not born excluded, and we are not
31 always in situation of exclusion; rather, exclusion is lived and experience differently. Understanding and
32 answering to situations of exclusion necessitates thus the development of personalised strategies adapted to
33 the experiences of each and every one.

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At-risk indicators	Characteristics	
	Social exclusion	Digital exclusion
<i>Psychological & physical well-being</i>	<ul style="list-style-type: none"> - Lack of availability and access to care infrastructure and support - Limited ability to engage with better diets, exercise habits, collaborative treatments... - Lack of support due to social security status - Subject to substance abuse cf. drugs, alcohol... - Higher poverty risk amongst chronically and terminally ill, and those with stigmatized diseases 	<ul style="list-style-type: none"> - Design inequalities (cf. not in line with usability standards) - Lack of availability, affordability and awareness of adaptive technologies - Limited awareness, attitude and take-up of ICT-solutions for health problems
<i>Values, attitudes, opinions</i>	<ul style="list-style-type: none"> - Defiant behavior - Defiant symbolic references - Lack of self-determination - Lack of life satisfaction - Subject to a criminal, chaotic or unstructured lifestyle - Lack of awareness about the benefits of social, cultural, economic, educational participation 	<ul style="list-style-type: none"> - Indirect effects of offline behavior, life stage and lifestyle on ICT-access and use, cf. daily wants & needs, personal affordances, creative lifestyle, development creative content online - Negative personal perception of ICTs - Lack of perceived usefulness of ICTs - Lack of interest in ICTs - Lack of awareness about the potential personal benefits of ICTs - Lack of awareness about the necessity of additional ICT-courses due to under or overestimation of skills level - Limited willingness to engage in additional ICT-related courses
<i>Social and soft skills</i>	<ul style="list-style-type: none"> - Limited ability and confidence to interact with others, with institutions, in social activities due to lack of social intelligence, lack of communication skills, low self-esteem - Lack of confidence and competencies to deal with difficulties in an autonomous and independent way due to lack of self-efficacy, lack of problem-solving capability 	<ul style="list-style-type: none"> - Limited ability and confidence to interact with ICT-tools and services due to a lack of soft skills - Limited ability and confidence to interact with others and with institutions when dealing with ICT-problems - Lack of ability to deal with ICTs and their dynamic nature (constant processes of renewal, rapid evolution, new services...) in an autonomous and independent way due to lack of self-efficacy and lack of problem-solving capability - Subject to button anxiety - Limited ability to develop a professional online identity - Lack of communication skills for online interaction
<i>Cognitive skills</i>	<ul style="list-style-type: none"> - Limited educational potential & attainment within formal education - Limited ability to engage in lifelong learning courses 	<ul style="list-style-type: none"> - Limited educational potential & attainment within formal education - Lack of ability to develop digital skills autonomously through practice or self-study (e.g. trial-by-error) - Limited ability to deal with the multi-layered set-up of ICTs - Stringent need of support when engaging with ICTs - Lack of skills to determine when and what type of help is needed, and where to get that specific help

Sources: Barcalow-Nelson, 2006; Bemba et al., 2006; Benedito et al., 2010; Bento and Freitas, 2008; Brotocone et al., 2010; Communities and Local Government, 2008a, 2008b; Daly et al., 2008; Dekkers and Kegels, 2001; Donat et al., 2009; Hechtl and Cestino, 2011; Hechtl and Cullen, 2010; Hargitt, 2001, 2007; Heelley and Damodaran, 2009; Helper, 2008; Huang, 2006; Juhola-Gijbers and Vrooman, 2007; Lankshear and Krobel, 2008; Levitas et al., 2007; Liamputong, 2007; Livingstone and Hargitt, 2007; Mousberger et al., 2003; Newhouse et al., 2008; Schramm and Mareu, 2013; Selby et al., 2005; Steyaert and Johnson, 2011; van Deursen, 2010; van Dijk, 1999, 2001, 2005; Warren, 2007; Zihlman and Hargittai, 2009.

Figure 2: Personal resources

296x154mm (300 x 300 DPI)

At-risk indicators	Characteristics	
	Social exclusion	Digital exclusion
<i>Family composition</i>	<ul style="list-style-type: none"> - Family breakdown, cf. violence, divorce, abuse... - Ongoing family obligations - Teenage pregnancy - Poverty-risk amongst single-parent families - Higher poverty risk amongst children placed within child care systems 	<ul style="list-style-type: none"> - Negative ICT-attitude or low digital skills amongst family members - Low or no media richness within household - Limited freedom of use due to shared access to ICTs - Limited ability to practice ICT-use - Less ICT-access amongst singles due to access elsewhere, more financial constraints...
<i>Social support networks</i>	<ul style="list-style-type: none"> - Limited embedding in social capital communities - Lack of intensified social interactions - Limited participation in formal and informal networks, cf. local associations, leisure... - Lack of positive stimuli to engage and participate within society - Lack of social support within immediate social environment (cf. family, friends, colleagues...) - Lack of social support - human capital, due to negative consequences of neighbourhood factors within poorer areas 	<ul style="list-style-type: none"> - Limited participation in formal and informal networks, cf. local associations, leisure... - Low or no media richness, limited skills levels and lack of opportunities of use within surrounding communities and networks - Lack of communities of practice - Lack of positive stimuli to use ICTs - Limited ability to enlarge social networks through the use of ICTs - Lack of strong and weak ties, warm experts, local experts, proxy users within immediate social environment (cf. family, friends, colleagues...)
<i>Societal norms</i>	<ul style="list-style-type: none"> - Limited social integration - Rejection of common social norms - Lack of sense of belonging to society - Defiant view on norms of social citizenship (e.g. reciprocity, mutual obligations, social responsibilities) - Inability to live according to common societal norms - Defiant moral and social literacy 	<ul style="list-style-type: none"> - Limited willingness or ability to engage with services that are digital by default - Lack of compliance with digital by defaults as the overall norm within society

Sources: Bakker-Giesen, 2005; Branch et al., 2008; Brinkmann et al., 2009; Cragg et al., 2006, 2007; Donat et al., 2009; Gilbert, 2010; Haché and Centeno, 2011; Haché and Cullen, 2010; Haddon, 2004; Hargittai, 2003; Hiesley and Dornodola, 2008; Hoek, 2008; Jaeger-Gifford et al., 2009; Kennedy et al., 2008; Linckens and Knobel, 2008; Liampitong, 2007; Mancini et al., 2007; Naughton 2013; Notley and Fob, 2008; Sinclair and Brewster, 2010; Stava and Johnson, 2011; Stewart, 2007; Taitou, 2011; Vanderbroek et al., 2007; van Deursen, 2010; van Dijk, 2009; Verdegen, 2009; Warren, 2007; Witte and Mennan, 2010; Wright and Wadhwani, 2010; Zillén and Hargittai, 2009.

Figure 3: Social Resources

297x126mm (300 x 300 DPI)

At-risk indicators	Characteristics	
	Social exclusion	Digital exclusion
<i>Gender</i>	<ul style="list-style-type: none"> - Gender defined and limited participation of women in labour market - Gender biased role patterns within society / household dynamics 	<ul style="list-style-type: none"> - Gender defined ICT-use patterns due to gender-related content preferences, wants & needs, daily practices & routines - Male-driven design of ICTs - Limited participation of women in IT-training and IT-labour market - Low take-up of ICTs by women due to household dynamics and power relations within the home
<i>Age</i>	<ul style="list-style-type: none"> - Age-related position in the labour market, cf. youth unemployment, high cost of elderly employees... - Social isolation amongst elderly - Health issues amongst elderly 	<ul style="list-style-type: none"> - Age defined ICT-use patterns due to age-related content preferences, wants & needs, daily practices & routines, cf. influence of life stages, lifestyles, social and cultural habitat and attitude... - Specific ICT-learning needs amongst elderly, cf. small groups, low pace, 1-on-1 coaching... - Positive attitude towards elderly - Negative attitude towards ICTs, technology & innovation amongst elderly
<i>Ethnicity</i>	<ul style="list-style-type: none"> - Lack of employment opportunities - Reproduction of inequalities amongst ethnic minorities by the educational system - Confrontation with discrimination and racism - Limited societal participation due to type/status of immigration 	<ul style="list-style-type: none"> - Culturally defined ICT-use patterns due to culture-related content preferences, wants & needs, daily practices & routines - Dominant language schemes of ICTs versus ethnic minority languages - Limited participation in additional ICT-courses and training - Gender unbalance in ICT-access and use
<i>Language</i>	<ul style="list-style-type: none"> - Lack of general literacy and numeracy skills - Limited command of national language 	<ul style="list-style-type: none"> - Lack of general literacy and numeracy skills - Limited access to ICT-content because of dominant language schemes of ICTs - Lack of accessible and easy-to-understand language schemes (cf. <i>klare taal</i>) - Inability to deal with the communication schemes of specific ICTs/platforms
<i>Cultural norms</i>	<ul style="list-style-type: none"> - Defiant normative/cultural framework of reference (cf. weak work ethic, abuse of social security system, delinquent behaviour, crime unstructured lifestyle, gun and knife culture...) - Defiant cultural identity - Rejection of modernity - Rejection by society 	<ul style="list-style-type: none"> - Influence of deviated gender norms on ICT-access and use - Influence of deviated cultural norms on ICT-access and use - Lack of added value of ICT-use because of game and leisure oriented use patterns

Sources: Brandtsegg, 2010; Brants and Fransen, 2003; Broeckx et al., 2009; Communities and Local Government, 2008a; Cuervo and Meréndez, 2003; Dekkers and Kegels, 2003; Donat et al., 2009; Gee, 2010; Haché and Cullen, 2010; Hargittai, 2007; Hargittai and Hamilton, 2008; Helper, 2008; Husing, 2006; Jehoel-Gijbers and Vrooman, 2007; Jenkins, 2009; Moushagen et al., 2003; Moura de Holanda and Dell'Antonia, 2006; Selwyn et al., 2005; Sinclair and Bradley, 2010; Steyart and Gould, 2009; Steyart and Jahanian, 2011; Tiationou, 2011; van Deurzen, 2010; van Dijk, 2003; Warren, 2007.

Figure 4: Cultural resources

287x133mm (300 x 300 DPI)

At-risk indicators	Social exclusion	Characteristics
		Digital exclusion
<i>Employment</i>	<ul style="list-style-type: none"> - Lack of financial means and economic independence - Lack of education and training opportunities at work environment - inability to develop skills, cf. communication, social, soft... - Higher poverty risk amongst (long-term) unemployed 	<ul style="list-style-type: none"> - Limited opportunities of access and use, cf. no/low integration of ICT-practices within daily routines - Limited access to weak ties - Lack of ICT education and training opportunities within work environment
<i>Income</i>	<ul style="list-style-type: none"> - Limited capacity to purchase goods and services - Limited capacity to participate in social and cultural activities 	<ul style="list-style-type: none"> - Limited capacity to acquire home access to ICTs - Secondary cost of ICTs, cf. ink, software, cables, memory devices... too high - Low quality of access, no or few places of access, old ICTs, low connectivity speed, low quality of equipment...
<i>Economic opportunities</i>	<ul style="list-style-type: none"> - Lack of saving opportunities - Problematic debts - Limited access to wage premiums, cheaper products, participate in group purchases... 	<ul style="list-style-type: none"> - Lack of access to advantages of package deals, bundling of services, monthly subscriptions - Limited ability to obtain economic benefits from use of ICTs, cf. price comparison, cross-border orders...
<i>Financial skills</i>	<ul style="list-style-type: none"> - Lack of capacity to manage budgets - Limited advertising literacy 	<ul style="list-style-type: none"> - Limited advertising literacy of ICTs - Lack of understanding of ICT business models / payment models
<i>Education & Training</i>	<ul style="list-style-type: none"> - Educational inequalities by the educational system - Lack of lifelong learning opportunities - High school dropout - Lack of compliance with formal education, cf. rejection of formal education, differing learning styles, differing learning needs. - Limited willingness to engage in additional education and training, cf. negative learning experiences, poor educational achievement... 	<ul style="list-style-type: none"> - Lack of opportunities to develop digital skills, cf. button knowledge, information skills, strategic skills... - Lack of compliance with formal education, cf. rejection of formal ICT-education, differing learning styles, differing learning needs... - Limited availability and focus of ICT-courses in formal education - Lack of awareness of informal ICT-courses and training - Limited willingness and ability to engage in additional informal or formal ICT-related courses - Limited educational benefits from use of ICTs / online learning opportunities - Lack of recognition and certification schemes of ICT competences

Sources: Baranian-Nalon, 2006; Burek et al., 2006; Bruegelius et al., 2010; Brants and Fraun, 2003; Broersma et al., 2006; Cerny et al., 2006; Choulika and Leterrier, 2006; Crang et al., 2006; Daly et al., 2008; Cuervo, 2005; Dekkers and Kerkels, 2003; Gilbert et al., 2008; Gilbert, 2010; Gorski, 2008; Haché and Cullen, 2010; Hamedzadeh et al., 2008; Hargittai and Hirschi, 2008; Hargittai and Danodaram, 2009; Helipet, 2008; Jehiel-Gijbers and Vrooman, 2007; Livingston and Helper, 2007; Lohes and Kunter, 2007; Moreira, 2007; Pena-Lopez, 2009; Steyert and Gould, 2009; Steyert and Johnson, 2011; Tastou, 2011; van Deursen, 2010; van Dijk, 2003, 2005; Vehovar et al., 2006; Verdegen, 2009; Warren, 2007; Wilson, 2007; Witte and Mannon, 2010; Zillien and Hargittai, 2009

Figure 5: Economic resources

295x140mm (300 x 300 DPI)

		Characteristics	
		Social exclusion	Digital exclusion
At-risk Indicators			
<i>Impact of regulatory framework</i>	<ul style="list-style-type: none"> - Lack of horizontal policy approach - No implementation of 'poverty check', cf. poverty impact assessment, while new regulatory measures - Lack of social security support mechanisms - Lack of low-skilled jobs within overall job market - Perverse effect of (dis)incentives to avoid poverty trap - Negative consequences of historical societal evolutions 	<ul style="list-style-type: none"> - Lack of horizontal digital inclusion policy approach - Lack of regulatory frameworks of ICT platforms, cf. data protection, privacy... - Lack of regulatory framework for digitization of public and commercial services, cf. digital by default, cf. service guarantee, implementation of 'digital exclusion check'... - Perverse effects of market driven diffusion of ICTs - Limited compliance with usability and user friendly design due to a lack of integration of at-risk profiles in user-centred design processes of ICTs - Lack of relevant and easy-to-use ICTs and content 	
<i>Participation in decision-making bodies</i>	<ul style="list-style-type: none"> - Lack of structural participatory policy processes - Lack of engagement of at-risk groups in participatory policy actions and lack of mediation by professionals to enhance their participation - Limited involvement in local/national politics and organisations - Limited ability to present organised claims 	<ul style="list-style-type: none"> - Lack of structural participatory digital inclusion policy processes - Lack of engagement of at-risk groups in participatory digital inclusion policy actions and lack of mediation by professionals to enhance their participation - Limited involvement in local/national politics and organisations through ICT-tools, cf. online pressure groups, online civil action groups... - Limited ability to use ICTs to present organised claims 	
<i>Socio-spatial opportunities</i>	<ul style="list-style-type: none"> - Low quality of housing and overall living area, cf. crime, illegal dumping, poor housing... - Lack of transport availability - Lack of public and private services and infrastructure - Socio-spatial inequities, cf. ghettoization, rural underdevelopment... 	<ul style="list-style-type: none"> - Lack of ICT-access in rural areas - Low connection quality - Lack of general infrastructure - Lack of jobs due to IT-industries - Lack of public computer spaces - Limited availability of learning institutions (formal and informal) 	
<i>Public service infrastructure</i>	<ul style="list-style-type: none"> - Limited access to (online) public services and lack of structural mediation by professionals to enhance access to public services - Lack of social service infrastructure 	<ul style="list-style-type: none"> - Perverse effects of public services that are digital by default and lack of structural mediation by professionals to ensure participation of digitally excluded groups, e.g. through informal learning infrastructure, accessible technical support... 	
<i>Social rights</i>	<ul style="list-style-type: none"> - Lack of access amongst at-risk groups to social security agencies - Limited mediation by professionals to enhance access to social security and health services - Limited accessibility and availability of information on social rights issues 	<ul style="list-style-type: none"> - No implementation of a social tariff for ICTs, cf. e.g. Internet access, mobile... - Lack of recognition of access to ICTs as social/human right 	
<i>Agency</i>	<ul style="list-style-type: none"> - Limited capability to make life choices and personal decisions - Limited capacity to determine needs - Limited capacity to maintain independence 	<ul style="list-style-type: none"> - Limited capacity to control content and nature of ICT use - Limited influence on digitization of society - Lack of free digital choice 	

Sources: Barnehi et al., 2006; Boerma and Van Der Duij, 2007; Communities and Local Government, 2008a; Corvo, 2005; Daly et al., 2008; Emmel et al., 2006; Haché and Cullen, 2010; Helper, 2008; Jehoel-Gijbers and Vrooman, 2007; Latkelaar and Knobel, 2008; Limputing, 2007; Notley and Foth, 2008; Olshansky, 2008; Setby, 2004; Steyn and Johnson, 2011; van Deursen, 2010; van Deursen and van Dijk, 2009; van Dijk, 2003, 2005; Warren, 2007.

Figure 6: Political resources

296x150mm (300 x 300 DPI)

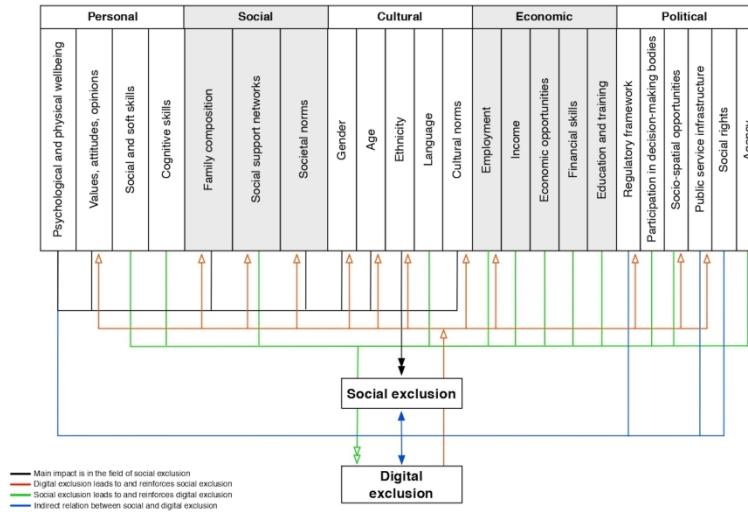


Figure 7: Dynamics of social and digital exclusion

294x158mm (300 x 300 DPI)

Classification of social exclusion	
Wide social exclusion	Confrontation with one or a small number of exclusion mechanisms.
Concentrated social exclusion	A geographic concentration of exclusion mechanisms.
Deep social exclusion	Confrontation with multiple and overlapping deprivations that are intertwined and reinforce each other.

Figure 8: A classification of social exclusion

251x51mm (300 x 300 DPI)

Continuum of social inequalities	
Deep social exclusion	Worst possible social position. Confrontation with multiple and overlapping deprivations that are intertwined and reinforce each other. Overall lack of agency and participation in society.
Wide social exclusion	Precarious social position. Confrontation with several deprivations that occur simultaneously. Participations in life domains is present but limited.
Concentrated social exclusion/inclusion	Position balanced between exclusion and inclusion. On the one hand confrontation with small number of deprivations that are concentrated within certain life domains. On the other hand participation and inclusion in the remaining life domains.
Wide social inclusion	Advantaged social position. Broad participation in society. When issues of exclusion occur, they are rather easily overcome.
Deep social inclusion	Overall full participation in all life domains. No prominent mechanisms of exclusion at play.
Continuum of digital inequalities	
Deep digital exclusion	Confrontation with multiple and overlapping digital exclusion barriers that are intertwined and reinforce each other. Overall lack of opportunities and support that stimulate access, use, motivation and the development of skills. The digital exclusion issues at hand cannot be overcome without intervention.
Wide digital exclusion	Confrontation with several digital exclusion barriers that occur simultaneously. Access and use patterns are present but limited.
Concentrated digital exclusion/inclusion	Position balanced between digital exclusion and inclusion. On the one hand confrontation with a small number of barriers concentrated around one or two ICT-related issues. On the other hand no problem with the remaining aspects of digital participation.
Wide digital inclusion	Broad take-up of ICTs. When issues of digital exclusion occur, they are rather easily overseen.
Deep digital inclusion	Overall and fully autonomous use of ICTs. No prominent mechanisms of digital exclusion at play.

Figure 9: Continuum from deep exclusion to deep inclusion

206x177mm (300 x 300 DPI)

Indicators at the social level	
Income	Refers to the factors having a direct influence on the financial strength and independence of individuals.
Education	Refers to the factors having a direct impact on the education levels on an individual, such as cognitive competencies or the possibilities to take part in formal and informal educational trainings.
Participation	Refers to the factors having an influence in the extent to which one can or desires to participate in society.
Agency	Refers to the factors having an influence on the extent to which one has the (decision-making) power to give direction to one's own life.
Wellbeing	Refers to factors affecting the wellbeing of individuals (e.g. health)
Indicators at the digital level	
Access	Factors influencing the ability to access digital media (e.g. quality of equipment, affordability of the equipment)
Attitude and motivation	Factors affecting attitudes towards digital media such as personal characteristics (e.g. age), cultural and social norms, personal values.
Digital skills	Factors influencing the development and level of digital skills (e.g. problem-solving competencies).
Social and soft skills	Factors influencing the way that individuals interact with one another, such as communication skills, self-awareness, self-confidence.
Autonomy	Factors having an influence on the extent to which one manages to use digital media in an autonomous way.
Usage patterns	Individual preferences having an influence on the diversity, focus and frequency of use (e.g. daily routines, outcomes of digital media).
Media character of the environment	Contextual factors inherent of the environment of the individual and having an influence on the attitude, skills or access of said individual (e.g. family composition, digital culture of the family).
Support networks	Factors having an influence on the extent to which individuals' need for support is fulfilled and the availability of said support is present in their immediate environment.

Figure 10: 13 at-risk indicators

182x183mm (300 x 300 DPI)

Deep social exclusion		Deep digital exclusion	
Income	Low	Income	Low
Education	Low	Education	Low
Participation	Limited	Participation	Limited
Agency	Limited	Agency	Limited
Wellbeing	Low	Wellbeing	Low
		Access	Limited
		Motivation	Low to high
		Digital skills	Limited
		Soft skills	Limited
		Autonomy	Limited
		Usage patterns	Limited
		Media character of the environment	Low
		Support networks	Not present but well needed

Figure 11: 13 indicators on a continuum from deep exclusion to deep inclusion

259x155mm (300 x 300 DPI)

	Digital Outcasts	Hopelessly Undigital	Digital Fighters	Smoothly Digital	Digital All-Stars	Unexpected Digital Masters	Unexpected Digital Drop-outs	Digitally Self-Excluded
At-risk indicators	Continuum of social inequalities						Beyond social exclusion	
	Deep social exclusion	Wide social exclusion	Concentrated social exclusion/inclusion	Wide social inclusion	Deep social inclusion	All three profiles are present amongst all SES-defined population groups		
Income	Low	Low → Average	Small number of specific barriers, no problems with remaining aspects, societal participation is present	Average → High	High	Low → High	Low → High	High
Education	Low	Low → Average		Average → High	High	High	Low	High
Participation in life domains	Low	Limited		Average → High	High	High	Low → High	High
Agency	Low	Low	Small number of specific barriers, no problems with remaining aspects, societal participation is present	Average	High	High	Low	High
Well-being	Low	Low		Average	High	High	Low → High	High
Continuum of digital inequalities								
Access	Deep digital exclusion		Wide digital exclusion	Concentrated digital exclusion / inclusion	Wide digital inclusion	Deep digital inclusion	Concentrated digital exclusion	Wide to deep digital exclusion
	Low	Average	Average	Small number of specific barriers, no problems with remaining aspects, use patterns are present, support networks are in some cases lacking	High	High	Average → High	Average → High
Attitude	Low → High	Average → High	High		Low → Average	High	Low	Low
Digital skills	Low	Average	Low → Average		Average → High	High	Average → High	Average → High
Social and soft skills	Low	Low	Low	Functional	Average → High	High	Low	High
Autonomy	Low	Low	Low		Average → High	High	Low	Low
Use patterns	Limited	Limited	Limited		Functional	Diversified, creative & strategic	None	None
Media Richness of surroundings	Low	Low	Low	Present and needed, know where and how to get support, provide support themselves Reinforcing resource effect	Average → High	High	Average → High	Average → High
Social Support networks	Not present, highly needed	Not present, highly needed	Present, but limited and needed		Present and needed, know where and how to get support, provide support themselves Reinforcing resource effect	Present and needed, but not used	Present and needed, know where and how to get support ¹	Present and needed, know where and how to get support ¹

Sources: Mariën et al., 2010; Mariën and Van Audenhove, 2010; Mariën and Van Audenhove, 2011; Mariën, 2012; Mariën and Van Audenhove, 2012a, 2013b, 2012c; Mariën et al., 2013; Mariën and Prodromik, 2014; Mariën et al., Forthcoming; Schramans and Mariën, 2013.

Figure 12: 8 profiles of digital inequalities

296x145mm (300 x 300 DPI)

Article

Social Support for Digital Inclusion: Towards a Typology of Social Support Patterns

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Abstract

This article contributes to a better understanding of patterns of social support in relation to digital inequalities. Based on an extensive qualitative study, the diversity of support networks and supports seeking patterns are unveiled. A typology of six patterns of help-seeking is presented and described: the support-deprived, the community-supported, the supported through substitution, the network-supported, the vicarious learners, and the self-supported. The article also critically engages with the often unnuanced academic literature on social support. The research and the typology reveal that the quality of support, as well as the availability of potential or actual support, is not only influenced by socio-economic factors. Rather, the strength of the relationship and the level of intimacy between individuals is an important predictor of support-seeking. As such, this article shows that mechanisms of in/exclusion are highly social, as they entail a diversity of formal and informal support-seeking patterns, which in turn have an important influence on the adoption and use of digital media. The article argues that understanding such mechanisms is rooted in reconciling micro-level interactions to macro-level patterns of inequalities. To show the specificity of social support within digital inequalities research, and to demarcate the concept from definitions of other academic disciplines, the concept of social support for digital inclusion is introduced. It is defined as the aid (emotional, instrumental, and informational) that an individual receives from his/her network in his/her use of digital technologies.

Keywords

age typology; digital divide; digital inclusion; digital inequalities; help-seeking; internet use; social inclusion; social support

Issue

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1. Introduction

According to Cobb (1976), social support is information that leads the subject to believe that (s)he is cared for, and that (s)he belongs to a social network of communication. Others define social support either as a flow of emotional concerns, instrumental aid, information or appraisal (House, 1987), or an aggregate of interpersonal interactions facilitating the flow of information between people (Islam et al., 2018). Looking specifically at digital inequalities, recent research shows that so-

cial support has an important effect on mechanisms of digital in/exclusion (Mariën & Baelden, 2016; Mariën & Prodnik, 2014; Mariën & van Audenhove, 2010). Indeed, given that not everyone has access to the same level of support, social support is another level at which digital inequalities manifest themselves. However, despite extensive research on digital inequalities and their consequences on mechanisms of in/exclusion (DiMaggio, Hargittai, Neuman, & Robinson, 2001; Helsper, 2008; van Deursen, 2018; van Deursen, Helsper, Eynon, & van Dijk, 2017; van Deursen & van Dijk, 2019), digital inequalities

studies present two main shortcomings when discussing social support. On the one hand, current research has not yet provided a concise definition of the concept of social support, and without a clear definition, the concept of social support is subject to several interpretations preventing the elaboration of a clear line of research; on the other hand, very little is known about the role of social support in mitigating or intensifying inequalities. In fact, the rare studies conducted on social support focus heavily on quantitative analyses regarding the quality and/or quantity of support (Courtois & Verdegem, 2016; Helsper & van Deursen, 2016; van Deursen, Courtois, & van Dijk, 2014). This article contributes to a better understanding of digital inequalities in two ways: It questions existing classifications by introducing a more complex typology of social support in relation to digital inclusion, and it nuances the causality between socio-economic factors and support. Our research questions are simple: (1) What are the different patterns of social support in relation to digital technologies, and (2) what influence do such patterns have on digital inequalities?

The rest of this article is structured as follows: In Section 2 we engage with the academic work on digital inequalities studies. We highlight the limitations of current research and present our own definition of social support for digital inclusion. In Section 3 we present our methodology. In Section 4 we develop our typology of six patterns of help-seeking and reflect on and confront our findings with existing literature. In Section 5 we reflect on the broader theoretical consequences of our work and consider the implications for digital inclusion policy.

2. Digital Inequalities Studies and the Concept of Social Support

Although research on ICT-adoption has shown the importance of social networks as a primary source of support (Bakardjieva, 2005; Brown & Reingen, 1987; Haythornthwaite, 2002; Stewart, 2007), the concept of social support is only recently being explored within digital inequalities studies. Van Deursen et al. (2014) examined how people deal with inadequate skills levels by identifying the sources and forms of support available to them. They investigated whether internet skills have an effect on the attainment of beneficial outcomes and whether the support sources employed have an influence in moderating these effects. Based on a large-scale representative survey, they developed a three-class model delineating the following support patterns: (1) the independents, users with low formal education, who do not need any help; (2) the socially supported, users seeking support from family and friends; and (3) the formal help seekers, users relying heavily on help desk, computer experts, or formal courses.

The results of the survey show that the independents were more likely to be male with higher education levels, while the socially supported were generally female with low levels of education and more often unemployed; the

formal help-seekers were constituted of low and medium-educated users with higher levels of employment than the socially supported. Through this study, van Deursen et al. (2014) show that patterns of support-seeking have a strong influence on the development of digital skills, the benefits one is able to attain from the internet, and on the quality of the support received. However, while the study yielded interesting insights regarding the importance of support, the focus on digital skills somehow obscures the understanding of support-seeking: Why do individuals choose one form of support over another? Do people combine different patterns of support-seeking? Are inadequate skills levels the only factor motivating people to ask for help? Or are there deeper motivations prompting people to ask for help?

Courtois and Verdegem (2016) argue that social support is an indispensable source of social learning. Whereas van Deursen et al. (2014) focused on the link between digital skills and social support, Courtois and Verdegem (2016) consider the composition and socio-economic background of social support networks and their moderating role in explaining digital inequalities. Based on quantitative analysis, they delineate three main profiles: (1) the domestically networked, users who rely on others (family, friends, etc.) to help out with a problem; (2) the non-domestically networked, users who first ask for support from colleagues and friends; and (3) the self-reliant, users who rarely ask for help but solve problems on their own.

According to this study, the domestically networked were mostly older females from large families and unemployed; the non-domestically networked were younger males, financially at ease, employed, and part of smaller families; the self-reliant were younger users with the tendency to use different languages online. Two important findings can be taken from the study of Courtois and Verdegem (2016). First, those who seek support within their domestic circles are usually from disadvantaged social and economic positions, with low motivation and skills. Second, social embeddedness—that is the extent to which someone is part of a social network—is a key factor to be able to ask and receive help, showing how social and digital factors go hand in hand. While our own research confirms this second conclusion, our findings also show that those who ask for help within their domestic circles are usually those with the most social and economic resources.

Whereas both former studies establish patterns of support seeking, Helsper and van Deursen (2016) focus on quantity and quality of social support and their subsequent influence on digital engagement. To this end, they use different indicators to predict potential and actual use of support, as well as the variety of sources of support used. They distinguish between potential support—support people believe they have access to—and actual support—support people have actually used. Their findings show that informal support—also defined as the socially supported (van Deursen et al., 2014) or the

domestically networked (Courtois & Verdegem, 2016)—was more often used by people with lower levels of digital resources, whereas those with high socio-economic resources turned more easily to formal sources of help (e.g., co-workers, experts). More importantly, this study shows that social support is another level at which digital inequalities manifest themselves: Those who experience the most problems online are the ones with fewer opportunities to receive high-quality support. While our research partially supports this last conclusion, our findings show that not only those with a high level of education benefit from the use of digital technologies but some respondents in other socio-economic groups, in contrast to their peers, are able to take advantage of the use of digital technologies.

To show the specificity of social support within digital inequalities research, and to demarcate the concept from definitions of other academic disciplines, we introduce the concept of social support for digital inclusion. We define it as the aid—emotional, instrumental, and informational—that an individual receives from his/her network in his/her use of digital technologies. We define emotional aid as the support given through appraisal or social companionship during a time of heightened distress caused, for instance, by an individual's fear of technology, while informational aid is a task-oriented form of support (e.g., teaching an individual to use a computer). Informational aid refers to the guidance, advice or feedback an individual receives during the learning process. Social support for digital inclusion points thus to the diverse nature of support networks and highlights the variety of support seeking patterns people use and/or combine, from individuals without access to support networks, to individuals who gain support by emulating others. Henceforth, our definition of digital social support, while built on existing conceptualisations of social support (Cobb, 1976; Islam et al., 2018), asserts the specificity of such a concept for digital inequalities studies by being grounded in the findings of this research.

3. Methodology and Analysis

Most studies on social support as a factor in digital inclusion use quantitative methods. This article presents one of the rare qualitative studies in this field. Yet, it is important to note that social support and the patterns

of help-seeking were not the initial aims of IDEALiC—Setting the Future Scene of Digital Inclusion, a research project in Belgium on which this article is based. The research project focuses on the digitalisation of public and private services in Belgium and its impact on citizens' digital autonomy. However, the discussion on support seeking emerged organically during our conversations with participants. Similarly, the patterns of help-seeking outlined below arose naturally during the qualitative analysis of the in-depth interviews.

Throughout the research, we apply a life-course perspective approach to highlight the complex and changing conceptions of individuals regarding digital technologies. The life course perspective refers to a sequence of activities or events embedded in individuals' lives. This approach aims at mapping, explaining and describing the change in social positions over time (Elder, 1994; Meyer, 2009). This approach states that individuals, at each life stage, are experiencing various life transitions. The notion of 'life stage' points to the roles and social positions an individual occupies over time, whereas 'life transitions' describe the pattern taken by these social positions over time. From this perspective, each transition corresponds to a significant 'step' in life which not only modifies an individual's social status and roles, but also affect their participation in different social spheres.

This article is based on 85 in-depth interviews with respondents distributed across three life stages (see Table 1).

The first life stage (18–30 years old), henceforth called the 1st LS, corresponds to the period in which young adults are building autonomy in all domains of the social life (e.g., employment, relationships, etc.) and are steadily increasing their social, economic and political participation in society.

The second life stage (31–50 years old), henceforth called the 2nd LS, refers to a period in which individuals are assumed to have developed a certain autonomy and participate fully in society; however, the challenge at this point is to maintain this autonomy and full participation while at the same time managing work, family, and life hazards.

The third life stage (51–70 years old), henceforth called the 3rd LS, can be characterised by the desire to remain active in society while ageing remains an important societal challenge.

Table 1. Overview of the respondents.

	18–30 Y/O		31–50 Y/O		51–70 Y/O		TOTAL
	F	M	F	M	F	M	
Low education level	3	6	2	5	6	5	27
Medium education level	3	3	5	3	7	4	25
High education level	5	4	5	6	4	8	32
Undetermined			1		1		
Total F/M	11	13	12	13	18	15	85
Total		24		26		35	

In addition to the life stage perspective, several other criteria were taken into consideration for the selection of respondents:

- The level of education: low education level (LE; maximum middle school diploma); medium education level (ME; maximum high school diploma); and high education level (HE; minimum bachelor degree);
- The family situation: in couple, living alone, living with parents;
- The presence of children: no children, children living at home, children no longer living at home;
- The social status: employed, retired, student.

The aim of these selection criteria was to have a varied range of profiles over the life trajectories. The sampling was not aimed at statistical representativeness but sought the equal representation of a wide range of individuals. The life course perspective allows us to generate new insights regarding the patterns of help-seeking and social support for digital inclusion (see Table 2). What patterns are present across the three life groups? How do these patterns intersect? Where do they diverge?

Interviews were conducted in Belgium between April–June 2017 and February–June 2018. The respondents were recruited via the networks of the research team and through posts on social media. For groups that were more difficult to reach (e.g., homeless), the research team reached out to its network of grassroots organisations to contact these respondents. Each of the 85 in-depth interviews was conducted face-to-face at

the desired location of the respondent (mostly at home). The interviews were transcribed and coded using NVIVO, data analysis software designed for rich text-based data. A codebook was developed in order to ensure the efficient management of large volumes of complex data. The codebook was divided into six different themes: (1) trajectory of life; (2) conditions of access and use; (3) digital engagement; (4) autonomy; (5) outcomes; and (6) perceptions.

The codebook is based on the combination of two methods of exploring data. On the one hand, a deductive or ‘top-down’ approach was used starting from theories on digital inequalities (Carretero, Vuorikari, & Punie, 2017; Helsper, 2008, 2016; Helsper & Eynon, 2013; Helsper, van Deursen, & Eynon, 2015; Mariën & Baeldens, 2016; van Dijk, 2005; van Deursen, Helsper, Eynon, & van Dijk, 2017) to explore the data gathered during the in-depth interviews. This theory-driven approach is observable with the fifth theme on outcomes, for instance, referring to the benefits someone is able to draw from his/her engagement online (van Deursen & Helsper, 2015). The theory-led perspective enabled the research team to identify processes not explicitly identified by the respondents.

On the other hand, an inductive or ‘bottom-up’ approach was used moving from the observation of concrete realities to the conceptual understanding of the data collected. This ‘bottom-up’ perspective allowed the research team to ‘hear’ the voices of the respondents through the analysis. It allowed the construction of theoretical narratives based on the interpretative and subjective nature of interviews. This approached is observ-

Table 2. Overview of the respondents: Additional criteria.

Family situation	F	M	F	M	F	M	TOTAL
	18–30 Y/O		31–50 Y/O		51–70 Y/O		
In couple	5	5	5	8	13	10	46
Living alone	5	4	4	5	8	5	31
Living with parents	3	3	0	0	0	0	6
Widow(er)	0	0	0	0	1	1	2
Total F/M	13	12	9	13	21	17	85
Total	25		22		38		
Children	F	M	F	M	F	M	TOTAL
No children	10	12	5	4	3	3	37
Children at home	2	0	5	9	1	2	19
Children not home	0	0	0	1	16	12	29
Total M/F	12	12	10	14	20	17	85
Total	24		24		37		
Social status	F	M	F	M	F	M	TOTAL
Student	5	3	0	0	0	0	8
Employed	6	9	7	7	6	1	36
Unemployed	1	1	5	6	5	2	20
Retired	0	0	0	0	7	14	21
Total M/F	12	13	12	13	18	17	85
Total	25		25		35		

able with the sixth theme on perceptions, as individuals' representations of, and relationships with technology, emerged organically during our conversations with the participants.

For the concept of social support for digital inclusion, we distinguished between support online (YouTube tutorials, online forums, etc.), support within close social networks (family, friends, colleagues), support in computer and/or technical centres, and no support-seeking. We further distinguished between those who provide support to family, friends, colleagues, those who give support online (e.g., helping strangers through online forums), and those who do not provide support.

4. Seeking Help? Towards a Typology of Digital Social Support

Based on insights from our research, we develop a typology of six patterns of help-seeking and the characteristics

associated with them (see Figure 1). The aim of this typology is twofold: (1) to further the debate on social support within digital inequalities studies; and (2) to critically engage with the often unnuanced academic literature on social support. It must be noted that these patterns of support are not mutually exclusive: People combine varied forms of support to meet their needs. However, while support-seeking patterns are not exclusive, the way people switch between patterns of help or the way these patterns change over time become only visible in the long run and would necessitate observing people over the years—a task for further research.

4.1. The Support-Deprived

Individuals in the support-deprived category are characterised by their lack of access to social support. They are generally low educated coming from all three life stages. At the social level, their situation is often precari-

Type of support	Characteristics	Type of support	Characteristics
Support-Deprived	<ul style="list-style-type: none"> Low level of digital skills and often in situations of social precarity and/ or social exclusion. Acknowledge that they need help with digital technologies but in the incapacity to find someone to help because of their situation of exclusion. Found within all three life categories (18-years old; 31–50 years old; 51–70 years old) 	Network-Supported	<ul style="list-style-type: none"> Draw support mainly from close social circle (family/children/spouses/close friends and/ or coworkers). Show the importance of social embedding: to be able to draw support, there is a need to be integrated in a social network. Mostly, 2nd life category (31–50 years old) and 3rd life category (51–70 years old).
Community-Supported	<ul style="list-style-type: none"> Almost all sources of support come from computer room and/ or computer classes. Computer room/classes seen as: <ul style="list-style-type: none"> — a way out of potential exclusion, both at the social and digital level — a way to become more independent (no longer depends on children for support) Mostly respondents from 3rd life category (51–70 years old) 	Vicarious Learners	<ul style="list-style-type: none"> Do not explicitly ask for support but learn by emulating others. Rely on watching friends' and family's use of digital media and from then onwards start learning by doing. Mostly respondents from the 1st life category (18–30 years old).
Supported Through Substitution	<ul style="list-style-type: none"> Do not directly engage with digital media but ask someone in their close social circle (generally family members) to accomplish a specific task for them (e.g. send an email) Spotted with older couples where one spouse either has more skills than the other or when one spouse does not want to use digital media. To be distinguished between a) supported with low digital skills, and b) supported with low motivation. Mostly respondents from late 2nd life category (41–50 years old) and 3rd life category (51–70 years old) 	Self Supported	<ul style="list-style-type: none"> Do not seek support from the domestic sphere but are a great source of support for others (mostly domestic circle). Reveal high levels of digital skills and digital fluidity. Are more likely to stretch out of their comfort zone to learn new things. When help is needed, they look for solutions online and learn by doing. Mostly respondents from the late 1st life category and early 2nd life category (between, 25 and 45 years old). Mostly male and highly educated.

Figure 1. Patterns of social support.

ous (unemployed, retired, chronically ill, etc.): They possess a limited—often nonexistent—social network. At the digital level, their low economic resources prevent them from having access to and/or owning quality digital tools. As a result, the support-deprived are often individuals with very low digital skills. This already precarious situation is further aggravated by the fact that they do not have access to help. Indeed, while most of the respondents within this cluster acknowledge that they need help (e.g., to send an email), they also recognise their inability to ask for support when they need it. This category of respondents has not, to our knowledge, been identified in current research on social support. Support-deprived individuals lack emotional, as well as informational and instrumental aid:

Interviewer: When you are confronted with problems with your smartphone, do you ask for help?

Respondent: Most of the times I just give up. When I find myself in difficulties and I don't know how to use it, the problem is I don't have anyone near me to show me how to use my smartphone or do this or that operation with it.

Interviewer: So, there are moments where you really don't know what to do and where you just give up?

Respondent: Yes, it happens. And since I do not have a computer it is really not easy. (Female, 28, 1st LS, LE, living with her parents, no children, student)

Respondent: I would like to be able to use it [technology in general], yes, because otherwise you are no longer part of society. It evolves so fast that it becomes impossible to follow what is happening. You are almost obliged to have this technology. And you constantly have this feeling that, yes, it is needed but [pause] if you don't have this technology you are completely left out of everything. (Female, 53, 3rd LS, LE, living alone, no children at home, unemployed)

For this category of respondents, the feeling of exclusion as well as the awareness of being pushed to the margins of society is acute. In addition, the social pressures and the sentiment of being compelled to engage with the digital is a recurrent theme within this category. On the one hand, digital evolutions occur at a rate they have difficulty following; on the other hand, the increasing digitisation of society presses them toward even more digital solutions, regardless of their inability to keep up with technological evolutions.

This confirms the findings of Courtois and Verdegem (2016) and Mariën (2016) on the impact of social embeddedness on digital engagement. The quotes from the support-deprived show how social and digital factors play a role in mechanisms of in/exclusion. Indeed, respondents in this category often expressed a sense

of powerlessness. The challenges they face at the digital level impede their societal participation. It also partially confirms the findings of Helsper and van Deursen (2016) according to which those most in need of help are the ones with fewer opportunities to access high-quality support. In that sense, social support is indeed another level at which inequalities, both social and digital, are manifested.

4.2. The Community-Supported

The community-supported category refers to the individuals whose only source of support comes from computer classes, computer training organised by state/municipality-funded organisations, or digital inclusion intermediaries. In that sense, they resemble the formal help seekers of van Deursen et al. (2014), as they rely on formal help as their main source of support. However, our study shows that, for this category of support seekers, age is a more discriminant factor than education: The technically supported in this research are mainly found among respondents from the 3rd LS (51–70 years of age), with gender and education levels all taken into account. For this cluster, instrumental or task-oriented, and informational aid are important. These individuals usually display low levels of digital skills which can be explained by the fact that digital technologies are relatively new for this generation:

Respondent: Yes, so it is not always easy. I am sixty-six and I think that for older people it is a real performance to come here to follow computer classes. To be so willing to work with the computer, I think, it is unique actually. Because you should not underestimate the difficulty, all this is quite new for our generation. (Female, 66, 3rd LS, LE, in a couple, no children at home, retired)

Despite low levels of skills, the community-supported show high motivation to learn. This motivation is expressed in two ways: On the one hand, the decision to start computer classes is motivated for some respondents by the fact that their low digital skills expose them to potential exclusion. As told by one of the participants (male, 60, 3rd LS, LE, living alone, no children, unemployed), the fear of becoming digitally illiterate, associated with a precarious socio-economic situation and the urgency to find employment, motivated his decision to start learning to use digital technologies. Indeed, due to a severe back injury, this respondent had to leave his construction job to find a less manual form of labour. This meant automatically having to engage with digital technologies on a regular basis. Another respondent says the following:

You come to a point where you say: You really can't do without digital media. And that is...especially, when you go to the GB [supermarket], there are papers

sometimes, but when you don't have your card with you then you have to go through the computer. Now that has been adjusted, now they do it themselves since a few days ago, but before you had to log in and do that alone. Then I think: I have to know more about it. Because you are really right there, like a layman, and you do not know how to push or pull a button. And that helped me, also those lessons here at the municipality. (Female, 66, 3rd LS, ME, in a couple, no children at home, retired)

On the other side, some respondents see in the computer classes the opportunity to become more autonomous in their digital experience. This category of respondents is generally reliant on the support of their children and they are motivated to learn new skills because they desire to be independent:

Respondent: In the beginning, I was about forty, and they, my children, they were about fifteen or something...and yes, having to admit that you cannot do that, alas, that is hard. I can't do everything here....Bwa, it's not that bad. But, that's true, that's true: I used to be the one who could do anything here and, in those days, I had to ask my child. And so I am not used to that. (Male, 63, 3rd LS, HE, in couple, children at home, retired)

As shown by Kiesler, Zdaniuk, Lundmark, and Kraut (2000, p. 345), the dynamics of help at home can become problematic, especially when "children's technical expertise shifts intellectual expertise in the family." Henceforth, for this category of respondents, finding help in computer centres is crucial for the development of their digital skills and autonomy as it allows them to gradually gain independence from their close social networks.

This cluster deviates from categories of support patterns as defined in academic literature (Courtois & Verdegem, 2016; van Deursen et al., 2014). Help-seeking is not only activated when individuals are confronted with problems. As demonstrated by the community-supported, social support is at times a pre-emptive measure undertaken to achieve a desired need—finding a job or becoming more independent. Once again, the social context of the individual is crucial to explain the deeper motivations stimulating people to seek support.

4.3. *The Supported through Substitution*

Selwyn, Johnson, Nemorin, and Knight (2016) discuss the role of proxy users and their use of technology on behalf of others. We propose the supported through substitution category, which is slightly different. It refers to those users who use technology 'through' others and consists of individuals who refuse or are unable to use and/or access digital technologies. While proxy users accomplish tasks for others, supported through substitution access and/or use technology through others. In other words,

supported through substitution access and/or use technology through proxy users by asking them to perform the tasks they need: printing a document, sending an email, paying taxes, etc. Hence, this category is relevant as, contrary to the proxy users who accomplish tasks on behalf of others, the supported through substitution allow us to understand the motivations of those who make use of proxy users. For this cluster, proxy users constitute a source of emotional aid, supporting them during a time of heightened stress (e.g., anxiety at the thought of using a computer), and of instrumental aid or task-oriented help. They do not resemble any existing category as, to our knowledge, this type of user has not been classified within current research on social support.

Far from being a homogenous group, their levels of education allow us to distinguish between: (1) those who have low digital skills and are subject to button-anxiety; and (2) those who are not motivated to use digital technologies.

4.3.1. *The Supported through Substitution with Low Digital Skills*

This category consists of individuals with low to middle education levels and found mostly within late 2nd LS (40–51 years of age) and the 3rd LS (51–70 years of age). They heavily rely on their social circle to engage with digital media:

Respondent: I don't know my email address by heart. So now I have written it on a piece of paper, and I keep it with me. Because now I know what the consequences will be if I ever lose it again. So, I ask a good friend of mine to regularly check my mailbox with me, or I ask him to do it for me, like homework [laughs] and to check if there is something and send me an SMS if there is. It is so embarrassing. I am ashamed to find myself in this situation. It feels like I am illiterate. (Male, 49, 2nd LS, LE, living alone, no children, unemployed)

For the respondents of this category, their use of a proxy is mainly motivated by a fear of digital technologies. This fear of technology is accentuated by low levels of self-confidence, both regarding their social position and their digital capacities. Our research shows that this fear of technology is often linked to negative experiences with the digital: these respondents often have the feeling of being 'punished' for not using digital media.

Much like the support-deprived, this cluster shows the importance of social embedding. More importantly, it shows that despite the availability of support, society plays a great role in individuals' use and adoption of technology. Our findings indicate that these commonplace discourtesies—such as being fined for not using an online platform—reinforce individuals' negative perceptions of digital media and hamper the development of their digital autonomy. In that sense, society puts strong expectations upon such individuals without giving them

the tools and means to answer these expectations.

4.3.2. The Supported through Substitution with Low Motivation

The second type of supported through substitution can be found within close family circles, and more precisely with older couples (3rd LS, 51–70 years of age). In these couples, one spouse—in our study generally the woman—has more skills than the other who refuses to engage with technologies. Respondents in this group correspond to what Mariën (2016) calls the “digitally self-excluded”: high- to middle-educated individuals, with a rich social network, access to digital technologies but who choose not to engage with the digital because of their lack of motivation. Commonly, lack of time and retirement are put forward as reasons for disengagement:

Respondent: [Talking about his wife] I do not have anything against the automatization, or the fact that everything now happens digitally. I know how and what to do. But as I said, I am retired now; I was first on sick leave and then went into retirement. I could still type one or two letters with the computer but in the meantime, I have an amazing secretary [laughs] and I just let her take care of everything. She does everything I ask, for now at least [laughs]. (Male, 68, 3rd LS, HE, in a couple, no children at home, retired)

This cluster is interesting as it demonstrates that motivation and social perception of technology, more than socio-economic indicators, influence the pattern of help-seeking. It also shows that the lack of motivation is not solely linked to negative attitudes (Reisdorf, 2011); rather, some individuals do not see the value of engaging with technologies (Helsper, 2016). Yet, both types of support raise a series of questions: What happens when the proxy-user disappears? Should we help them develop their own digital skills, or find ways to motivate their engagement with technologies?

4.4. The Network-Supported

Network support is the most common form of support within our 85 respondents. Respondents from this cluster are usually middle- to highly educated, from the 2nd LS and 3rd LS. They mainly draw support from their close social network: at home with spouses and/or children, and at work with colleagues. The key concept to understand this type of support is the notion of homophily (McPherson, Smith-Lovin, & Cook, 2001). The concept of homophily refers to the idea that “contact between similar people occurs at a higher rate than contact between dissimilar people” (McPherson et al., 2001, p. 416). In other words, people tend to build their social networks around and with people who are most like themselves in terms of personal characteristics. As McPherson et al. (2001, p. 415) put it: “Similarity breeds connection.”

This cluster resembles the socially-supported of van Deursen et al. (2014) and the domestically-networked of Courtois and Verdegem (2016) as they make significant use of family and friends as sources of support. However, contrary to most research on social support (Courtois & Verdegem, 2016; van Deursen et al., 2014), we place the help received from co-workers at the same level as the help received within the family. We argue that the common denominator between these seemingly different sources of help resides in the strength of the tie uniting individuals. In fact, our research shows that individuals will only ask for help from close co-workers they feel they can trust and consider part of their close social networks. Moreover, individuals asking for help at work usually rely on friends and family when the support from co-workers is unavailable. In comparison to other categories, this group is able to rely on a large network of family, friends, and co-workers and is capable of combining different forms of help—informational, instrumental, and emotional:

Respondent: Yes, looking for help....If I need help with software or something like that, I will more easily ask a colleague I know well, like: Hey! Do you know how this and that works? But yeah, for the rest I just ask my girlfriend sometimes, but I think that's just it. (Male, 48, 2nd LS, HE, in a couple, children at home, employed)

Respondent: Oh, usually I ask Natasha or Kristof [co-workers], Kristof most of the time because he is good with this sort of stuff and he knows what to do. So, I go to them with my problem and I just ask: Hey, can you help me find a solution? And in last resort, I go to the IT-helpdesk of the bank, but they are almost all external to the bank, so I don't do it often. (Female, 57, 3rd LS, HE, in a couple, no children at home, employed)

As observed by Courtois and Verdegem (2016), network-supported in the context of the workplace are generally financially secure with stable employment. In line with van Deursen et al. (2014) and Stewart (2007), this cluster reiterates the crucial role of the workplace as a locus of help. This cluster also demonstrates how personal offline resources can be translated into the digital world with the appropriate support, and the importance of social capital. The concept of homophily associated to the concept of social support for digital inclusion shows partially how the rich—in terms of social, cultural, and economic resources—keep getting richer by accumulating and translating social resources into digital resources. In fact, the aforementioned respondent acknowledges that, as a result of the high-quality support from her co-workers, she noticed that her use of technology was becoming more intuitive. She still faces specific difficulties but manages more easily to solve problems on her own this cluster makes evident that social support is another level at which mechanisms of in/exclusion are per-

vasive (Helsper & van Deursen, 2016). Unlike the support-deprived individuals who lack the social embedding necessary to ask and receive help, or the supported through substitution with right resources but the low motivation, the network-supported, because of their deep social inclusion, are able to face specific digital challenges by asking for help.

At home, the network-supported tend to draw support mostly from their children and spouses. Contrary to the studies of Courtois and Verdegem (2016), or Helsper and van Deursen (2016), our research shows that those relying on family and friends do not necessarily come from a disadvantaged position, nor do they exhibit low digital skills. Rather, specifically for this research, our findings suggest that those relying on family and friends are usually respondents with a mid to high education level, financially secure and generally employed. Moreover, network-supported in the family context do not typically score low in terms of digital skills; instead, they make use of their social network to solve very specific problems:

Respondent: No, I will first try to do things by myself, try to discover things by myself and test things for a while. Sometimes it works well and other times I need help with something in particular. So, if I try and it does not work and I see that it is taking me too much time, I just ask my younger son, yes, I still have one son at home. He studies at the VUB [university], bioengineer. So, when he is home, I just ask him, otherwise, there is always one of them [his sons] that I can ask for help. (Male, 66, 3rd LS, HE, widower, children at home, retired)

Respondent: My husband used to pay all our bills and when he died, I stayed almost one year going all the time to the bank to do my bank transfers. Everyone was always telling me how easy it was to do everything online, but no one ever showed me. And one day, my daughter came home, and she sat for an hour with me and showed me how to do it. Now I feel almost stupid when I think of how much difficulty I had before. (Female, 68, 3rd LS, ME, widow, no children at home, retired)

Network-supported in the context of family support the findings of several studies (Bakardjieva, 2005; Chu, 2010; Correa, Straubhaar, Chen, & Spence, 2013; Stewart, 2007), emphasising the role of the family as source of support, and the importance of intergenerational exchanges of knowledge (Dolničar, Hrast, Vehovar, & Petrovčič, 2013). This category also raises questions regarding the sustainability of such a form of support. For some respondents, learning in a family context is perceived as frustrating as family members—most often children—do not always have the time or the motivation to help. This frustration often results in a strong need to be self-sufficient in their use of technology and a desire to be independent of their children's help. As such,

network-supported in the context of the family are also very often the community-supported:

Interviewer: Could you give a specific example of your daughter not wanting to help?

Respondent: Let's say that something happens. Something pops up on the bottom of my computer or my mailboxes. I'm always afraid to open it because I don't know what might happen if I click on it. My daughter just tells me 'When you don't know don't touch' but...I don't want to be dependent anymore. That's the reason why I go to the EPN [public computer centre] with my computer to ask questions. (Male, 46, 2nd LS, ME, in a couple, children at home, employed)

4.5. *The Vicarious Learners*

The vicarious learners are mostly found in the 1st LS (18–30 years of age), and at the beginning of the 2nd LS (31–33 years of age), middle- to highly educated. Vicarious learners express some of the characteristics of the network-supported as they rely extensively on their close social networks in order to engage with digital technologies. Nonetheless, they distinguish themselves from other patterns of support, as they gain confidence from watching the digital uses of friends and family members before deciding to use the technology themselves. Put differently, contrary to the supported through substitution, who access technologies through others, the vicarious learners learn to use technologies through others. In that sense, social support for digital inclusion takes mainly the form of informational aid for this cluster: Close social networks act as "local institutions" or "local experts" (Stewart, 2007) whose opinions and information are highly valued by the vicarious learners:

Respondent: My mom works at Belfius [Belgian Bank], and at first I thought, yes...but such an app on your mobile with your bank details, I don't know...because with your money...imagine if someone steals your phone or imagine you are hacked, then that person can get all your money. But then my mama told me no, no, [that] it is very safe, and you have to do that and that and that. So actually, I am always afraid of something happening with my cell phone, but then if there is someone who can convince me that it is not true, then I have no problem, then it works for me. (Female, 25, 1st LS, HE, in a couple, no children, employed)

Respondent: So, yes, I don't have a particular interest in this or that. I mean, I'm not going to go and download an app just to see how it works, no, no. For example, when I hear my friends say, oh...that, for instance, now that Payconiq [electronic payment] app is booming, and that is usually how it happens, so if I hear from friends, say: Oh, J., the app is abso-

lutely great! Yes, then I would probably try that in the long term, yes, yes. But testing things in itself is not in me. (Male, 33, 2nd LS, ME, living alone, children at home, unemployed)

Once the vicarious learners are convinced of the validity or usefulness of digital tools, they start discovering the digital by themselves through trial and error. They remain a strong basis of support for the less-skilled members of their social networks and are often the source of help of the network-supported. The question this cluster raises is whether this self-learning approach is beneficial for the development of their digital skills. As noted by van Deursen and van Dijk (2010), while people may learn effectively by trial and error, they also tend to reproduce the same mistakes online once they achieve the goals they have in mind. In that sense, contrary to the following pattern of support, which shows high levels of skills from the beginning, vicarious learners run the risk of building questionable and weak skills when learning by doing.

4.6. The Self-Supported

Self-supported learners are the least common type. They can be compared to what van Deursen et al. (2014) called “the independents,” and to what Courtois and Verdegem (2016) call “the self-reliant.” The self-supported do not ask for help, although they possess the network to do so. Instead, they seem to learn intuitively, revealing high levels of digital skills and digital autonomy. The self-supported are generally male, highly educated, aged between 25 and 45 years old and working closely with digital media. In general, they have high-quality access and equipment. They tend to move out of their comfort zone to learn new things and are confident about their skills. While the vicarious learners also learn by doing, the self-supported differ from this typology in the sense that they rarely wait for a local expert’s approval before trying new technology, and they exhibit high levels of digital skills from the start:

Respondent: I will easily try something out if it is new or if I hear something from friends, or I see someone with it and...it seems cool. Sometimes I test also to see if that suits me and if it fits in with my way of working. (Male, 35, 2nd LS, HE, in a couple, children at home, employed)

Respondent: Photoshop, for example, is something that I like, it is a hobby I learned by myself years ago. And there are always new versions and when I have to make something with Photoshop sometimes it’s true, I don’t know where to start so I just browse tutorials on YouTube. The same for my music software: I can go on the website of the software or look on forums what other users are saying, but...yes, I don’t see the need to ask others because I know how to look for stuff by

myself. (Male, 44, 2nd LS, HE, in a couple, children at home, employed)

Self-supported learners constitute a prominent source of support for their social network. They form the support basis for network-supported and vicarious learners: They are often the co-workers, the digital experts giving in-house training, the children helping the parents or the local experts of the vicarious learners:

Interviewer: And can you recount a moment where you provided help to someone else?

Respondent: Yes, definitely my grandparents: helping them with their computer, printing stuff on one page instead of two, helping with emails, downloading stuff and helping them find what they have downloaded, installing Dropbox on their computers and explaining to them how it works. Yes, actually helping a lot in the family with like real concrete stuff. (Male, 25, 1st LS, HE, living with parents, no children, employed)

The concept of homophily again plays a significant role, as high-quality support tends to be given within highly homogenous social networks. As shown by Yuan and Gay (2006), homophily has a strong influence on the creation of learning communities. As the likelihood of social interactions increases among similar people, so does the formation of network ties when it comes to learning communities. By assisting their social environment, self-supported act as gatekeepers in the distribution of knowledge, thus enabling the people in their environment to develop their digital skills and autonomy. Policy interventions should consider this type of support as a pathway to the digital inclusion of those lacking the resources to ask for and receive help.

5. Conclusion: Digital Social Support and the Question of Inclusion

As mentioned in Section 4—in which we have described our typology—we have constantly reflected on and confronted our findings with existing academic literature. We will not repeat this here. In this section we explore the broader theoretical implications of our work and point to consequences for policy. It is clear by now that digital inclusion is not just a technological issue; rather it entails a variety of formal and informal sources of help enhancing or constraining access to and use of technologies.

Our concept of social support for digital inclusion allows us to rethink digital inclusion in two main ways. At a theoretical level, the concept of social support for digital inclusion reveals how individuals develop various ways of coping with learning in a society in constant change. Indeed, rapid technological evolutions are progressively transforming all realms of society, requiring individuals to learn and/or update their skills at a faster rate than

before (Asmar, van Audenhove, & Mariën, in press). The role of social support for digital inclusion in coping with fast-paced learning is evident in two ways:

- Support networks are not only invoked in time of heightened stress or when individuals are faced with difficulties. As highlighted by the community-supported, some respondents reached out to their support networks in a pre-emptive manner. In fact, some respondents were acutely aware that certain life transitions were threatening their digital inclusion in the long run (e.g., having to find a new job when having low digital skills). As such, these respondents reached to their support networks at a very early stage of their learning process to avert the consequences of potential exclusion;
- Social support is not only invoked by individuals with low digital skills. As demonstrated by the network-supported, the vicarious learners, and to some extent, the self-supported, social support is often used by individuals seeking to resolve very specific problems. To do so, they resort to distinct persons in their networks (e.g., co-worker) and once their problems are solved, they are able to resume their learning process.

Highlighting these ways of coping with learning in a fast-paced society allows demonstrating first the agency of our respondents in choosing which moments are the most beneficial to make use of their support networks. Second, this agentic behaviour shows that respondents are highly aware of the potential outcomes attached to the use of their networks (e.g., better skills to find a better job). However, we contend that these outcomes still have to be explored and better understood by digital inclusion researchers. We are confident that such a shift would benefit digital inclusion researchers by opening up a research agenda that is less focused on socio-economic indicators as factors of social support, and more centred on understanding the different outcomes people are able to gain from the use of support networks.

Concerning inclusion initiatives and policies, we argue against traditional approaches on digital inequalities considering being digitally included as an individual responsibility (Mariën, Heyman, Saleminck, & van Audenhove, 2016; Wauters, Mariën, & van Audenhove, in press). As outlined in this contribution, the individuals who were able to access and benefit the most from social support—supported through substitution with low motivation, network-supported, vicarious learners, self-supported—were the ones included in dense social networks. Indeed, contrary to most quantitative studies on social support (Courtois & Verdegem, 2016; van Deursen et al., 2014), our research shows that those with high education levels are not always the only ones on the right side of the digital divide—that is to say the ones able to benefit the most from their use of digital technologies in their everyday life (Buente & Robbin, 2008). Our find-

ings reveal that some lower-educated respondents, contrary to their peers, find themselves on the right side of the divide as well. Despite their difficulties, social and/or digital, they show high interest and motivation to engage with digital technologies. This positive disposition is translated in conscious efforts to develop their skills through computer classes, by asking for help or through trial and error. Moreover, quantitative studies on social support tend to rely heavily on socio-economic and socio-cultural factors as indicators of the quality or availability of support. Yet, our findings suggest that the quality, as well as the availability of potential or actual support, is also influenced by the strength of the relationships between individuals. Put differently, intimacy is an important predictor of support that needs to be taken into account in typologies of support-seeking. As such, it is important at the policy and community level to recognise these social interactions in which digital inclusion can flourish: the learning communities in computer classes, in the workplace, within the familial circle.

Conflict of Interests

The authors declare no conflict of interests.

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Rethinking Access in a Polymedia Environment: From Platforms to Services

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Rethinking Access in a Polymedia Environment: From Platforms to Services

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Abstract

The concept of access has traditionally been defined as a binary distinction between those who have access to the internet and those who do not. However, this oversimplifying definition does not accurately describe the present technological and social changes. Hence, distancing from this dichotomy, we move from a focus on technology affordances to the concept of polymedia to offer an alternative understanding of the concept.

On the basis of a broad research project propelled in Belgium, one of the main findings suggests that having access ceases to be solely about the platforms to encompass the possibility of accessing the services needed to achieve specific purposes. Therefore, we argue that 1) motivational access is not only about attitudes; 2) individuals' needs should be at the forefront of digital agendas; 3) we introduce the concept of digital fluidity as a metaskill for autonomous use.

Keywords

Digital exclusion; access; digital divide; digital inequalities; polymedia



Introduction

“I had this guy leave me a voicemail at work so I called him at home and then he emailed me to my blackberry and so I texted his cell and then he e-mailed me to my home account and the whole thing just got out of control. And I miss the days when you had one phone number and one answering machine and that one answering machine has one cassette tape and that one cassette tape either had a message from a gut or didn’t. and now you just have to go around checking all these different portals just to get rejected by seven different technologies. It’s exhausting.”

Drew Barrymore as Mary in the movie ‘He is just not that into You’. Kwapis (2010).

“Being in an environment of polymedia matters because polymedia allows the choice of the medium or the combination of media that best convey one’s feeling and intentions”.

Madianou and Miller (2013:151)

We chat on WhatsApp, organize our social lives via Facebook and Messenger, solve our work related problems through video or conference call, and all these things often happen at the same time. The present media environment has been enriched by various technological developments, giving us access to virtually all types and forms of possible interactions: whether we wish to have a one-on-one conversation with a spouse or whether we rather organize weekend plans through a group conversation, it is ultimately possible to choose the best way of conveying particular emotions and messages. When it comes to research on digital exclusion, it is clear that having access to the digital has drastically changed from its original definition. Indeed, the initial assumption of most



research on the digital divide was that once people have access to internet, they will instantly use it in a meaningful way; as for those lagging behind, it is presumed that access to internet will ultimately allow them to catch up with the connected rest of the population. This presupposition reflects one of the biggest shortcomings of the digital divide research insofar as the oversimplifying nature of the concept of access too easily forecloses the discussion about what is at stake for the unwired side of the divide (Ginsburg, 2005).

As such, distancing from the traditional dichotomy, included versus excluded, the aim of this article is to offer an alternative understanding of the notion of access by using the concept of polymedia (Madianou and Miller, 2012; 2013) to describe the current technological and social changes. According to Dutton (2005; 2013), ICT-enabled media change the way people gain access, not only in terms of physical or electronic access, but the present ecosystem equally reconfigures the way individuals gain access to each other, to information provided by business, governments or local communities. Therefore, opening up a broader understanding of the term 'access' means widening the object of access to include people, services and technologies. Yet, whereas Dutton (2005) aims at widening the object of access, we focus here on enlarging the means through which access is achieved. Hence, this article differs from survey based studies on digital inequalities which often rely on a material approach of access; rather, this article provides a more contextual account of what it means to have access to technology.



Concretely, this paper is set within the framework of the Belgian Federal Research Project 'IDEALiC – setting the future scene of e-inclusion in Belgium'. Based upon 85 in-depth interviews conducted conjointly with the Catholic University of Louvain (UCL/FTU¹), one of the main findings of our research suggests that for most people, access to digital technologies ceases to be solely about the platform; instead, access to digital technologies has progressively evolved to encompass the possibility of accessing the services needed to achieve specific purposes. Whether access to the service is obtained via a fixed home computer, a laptop, a tablet or smartphone is of lesser importance: infrastructure remains a precondition for access but individuals attach more value to services.

In this article we start first by focusing on the concept of polymedia and argue that by moving away from the traditional theory on affordances, the theory of polymedia can actually help broaden the theoretical scope of digital inequalities studies. Second, we present the original methodological approach of the present research and demonstrate, from a qualitative perspective, how people create fluid and mobile media practices by moving – in and out, back and forth, between and across services *regardless* of the equipment used. Third, as access moves from platforms to services, we consider three theoretical implications of this shift: (1) motivation to access or use technology is not primarily spurred by positive or negative attitudes (Van Dijk, 2005); rather, we argue that motivational access is grounded in the needs of individuals; (2) considering policies on digital inclusion, these needs at the core of the motivation to access technology should be

¹ FTU – Fondation Travail Université



put at the forefront of the digital agenda; (3) we introduce the concept of digital fluidity as a metaskill necessary for the development of digital autonomy.

From a theory of affordances to polymedia

The theory of affordances emerged originally from Gibson's rethinking of the psychology of vision (1979) and was later on transposed in humanities and social sciences with Hutchby (2001; 2014) to account for the ways in which the affordances provided by digital technologies open up, or constraint social practices. In his interpretation of affordances, Hutchby seeks to find a middle ground between the more deterministic accounts of technology emphasizing the social impacts of technology, and the technicists arguing that technologies ultimately have features specific to themselves. For Hutchby, technologies should neither be seen from the vantage point of their interpretative properties, nor should they be apprehended based on the assumption that they possess inherent features independent of the perceptions of those who engage with them. Rather, Hutchby contends that technologies should be apprehended in terms of their affordances, that is to say that they should be understood in terms of the possibilities they offer for action; in other words, when studying technology, the outcomes produced as well as the effects induced need to be taken into consideration.

This account of the theory of affordances thus allowed researchers to move away from the very linear discourses on the 'effects' of technology toward understanding the functions of technological artefacts. By focusing on the materiality of the technological, Hutchby opened up the idea that individuals do not move from one media to the other but



ultimately decide *against* other possible channels by remoulding what appeared to be the 'natural' features of a given technology. The concept of affordances thus speaks of these emergent meanings that people create and develop in their contact with technology while also accounting for the ways in which the material properties of technologies enable or constrain the choices and practices of individuals.

However, while the concept of affordances is useful for exploring practices in a media rich environment, it misses two main points. Firstly, the theory of affordances assumes that the choices made by individuals are linear and singular; yet our research shows that individuals' choices with regard to digital media are liquid and shifting, alternating from one platform to a service and then to another one, usually at the same time. Secondly, the theory of affordances misses the emotional and intimate registers underlying these choices. Indeed, our findings suggest that the communicative choices of individuals are not solely shaped by the functional or technological features of a technology, but they integrate social and emotional considerations in these choices. Digital practices are informed as much by the technological as they are influenced by the social. In creating their digital practices within an increasingly rich media environment, individuals do not choose one affordance at the time, but integrate structures of affordances, combining multiple platforms and services, media and genres to achieve their needs. These structures of affordances and these fluid interplays between platforms and services are at the heart of the shift in access. Therefore, to understand these realities we turn to the concept of polymedia develop by Miller and Madianou (2012, 2013).



Until fairly recently, communicating at distance meant choosing between a very limited set of media, usually determining whether to send a letter or make a phone call. As a result, people were very much constrained by the specific propensities of the medium available for communication: with the extensive time lag between the sending and receiving of a letter, and the cost of overseas phone calls, people were quite aware of the outlays and the restrictions that their choices of medium implied. Yet, with the technological advances there has been a surge in the manifold possibilities of communication; as such, users became less and less aware of the costs associated to a single act of communication, and more responsive to the possibilities for action laid out by this new media environment. Polymedia refers thus to this "*profound transformation in the usage of increasingly converging communication technology*" (Madianou and Miller, 2012:2) and is developed to describe and understand "*the emerging environment of proliferating communication opportunities and its consequences for interpersonal communication*" (Madianou and Miller, 2012:2). The concept of polymedia establishes the epistemological foundation of the shift in access insofar as it conceptualizes the fluidity and the mobility of the digital practices of the present time.

It is our belief that the theory of polymedia actually serves to broaden the theoretical frameworks of digital inequality studies. Indeed, rather than focusing on a single technology (a laptop, a computer, ...), the theory of polymedia shifts the discussion towards an effort to understand (1) the digital as an integrated structure of affordances and (2) the rational choices made by users in navigating this environment. As such, instead of assuming that differences in use or inequalities in access result ultimately from



a hierarchy of media – from desktop to computer, to laptop, ... – the theory of polymedia allows us to show that individuals, in their daily interactions with technologies, do not perceive such hierarchies but combine a multiplicity of devices according to their needs and contexts of use. It is essential for digital inequality scholars to recognize how the uses and adoptions of digital technologies are not just a matter of hardware and software but are highly influenced by the individual's everyday social arrangements.

Methodology

In order to understand digital inequalities and digital exclusion from a broader contextual viewpoint, we apply a life course perspective approach to uncover specific moments or turning points in life that triggered or halted the use of digital media.

Tackling the issue of digital exclusion from a life course perspective is an innovative research methodology insofar as it enables an in-depth and dynamic understanding of individuals' perceptions of digital technologies; it also sheds light on the complexity and dynamism of their uses. Indeed, an explicit focus on life stages allows to grasp, through a focus on life events (e.g. marriage, birth, studies, ...), the remarkable diversity through which people combine and adapt technologies to fit their needs.

The life course perspective refers to a sequence of activities or events embedded in individual lives, and aims at mapping, explaining and describing change in social positions over time (Elder, 1994; Meyer, 2009). This approach states that individuals, at each life stage, are experiencing various life transitions. The notion of life stage points to



the roles and social positions an individual occupies over time whereas life transitions describe the patterns taken by these social positions over time. From this perspective, each transition corresponds to a significant 'step' in life which not only modifies the social status and the role of individuals, both from an objective and subjective standpoint, but also affect their participation in different social life spheres. Hence, a life transition can on the one hand, be characterized by the high probability to face a specific change at a certain period of life (e.g. first job, retirement, etc....) or can be characterized, on the other hand, by a disruption of the pre-established sequence common to most individuals (e.g. illness, divorce, etc....).

This article is based on 85 in-depth interviews with respondents equally distributed across the three following life stages:

- The first life stage (18-30 years) corresponds to the period in which young adults are building autonomy in all domains of the social life (e.g. employment, relationships, ...) and are steadily increasing their social, economic and political participation in society.
- The second life stage (31-50 years) refers to a period in which individuals are assumed to have developed a certain autonomy and participate fully in society; however, the challenge at this stage is to maintain this autonomy and full participation while at the same time managing work, family and life hazards.



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5 - The third life stage (51-70 years) can be characterized by the desire to remain active
6 participants of society and to stay independent while ageing is considered an
7 increasingly important policy challenge.
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13 Henceforth, the life stage perspective is valuable insofar as it (1) recognizes that different
14 periods of life influence social status, identity, roles, rights and expectations in society;
15 (2) highlights the multiplicity of digital channels that individuals combine, beyond the
16 specific characteristics attached to each life stage, to achieve specific needs.
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25 In addition to the life stage perspective several other criteria were taken into
26 consideration for the selection of respondents, such as the level of education – spread
27 between (1) low educational level (max. middle school diploma) (2) medium educational
28 level (max. high school diploma), and (3) high educational level (min. bachelor degree) –
29 place of residence (large or small agglomeration), the family situation (couple, single,
30 divorced, ...), the number of children and the social status (widowed, retired, employed,
31 ...). Another important criterion of selection was the equal distribution of participants
32 between men and women in each age groups.
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45 The aim of these selection criteria was to have a varied range of profiles in order to gather
46 diversified discourses and life trajectories. As such, the choices for the sampling were not
47 driven by statistical representativeness but sought for a wide range of individual stories
48 in order to grasp the similarities and divergences in the uses and relations with ICTs, not
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only for individuals belonging to the same age category, but equally beyond differences in life stages.

Findings

Rethinking access in a polymedia environment

The traditional concept of access

The concept of access has always been the main focus of traditional digital divide research. In fact, the digital divide was initially framed in terms of access, as binary distinction between those who have access to the internet – the ‘haves’ – and those who do not – the ‘haves not’ (DiMaggio and Hargittai, 2001:2). With the democratization of technology and as more people began to have access to internet, researchers and policymakers started noticing that certain categories of people (white, male, wealthy, ...) were more likely to use the internet than others. With these strong differences *among* people with formal access, the debate on the digital divide evolved to encompass attention on inequalities and differentiated skills and uses on the web (Hargittai and Hsieh, 2013). DiMaggio, Hargittai, Neumann and Schafer (2014) for instance suggested that different domains of inequalities, such as inequalities in access – referring to the uneven possession of (quality) equipment, or inequality in autonomy of use – referring to the differences in location of use- had an influence on the ability of individuals to apply the internet towards beneficial activities. Hargittai (2001) also broadened the discussion on digital inequalities



by adding in this framework the uneven levels in online participation and capital enhancing activities that she termed 'second-level digital divide'.

However, while the shift from digital divide to digital inequalities is certainly valuable, the concept of access remains too often defined either in terms of physical access to an internet connection or in terms of access to specific hardware (Van Deursen and Van Dijk, 2015). As such, it is implicitly assumed that access is defined either by ownership of a specific equipment or that access consists primarily in the acquisition of the relevant competencies for the use of this specific equipment. Yet, this view of the concept of access is problematic firstly because it dangerously erases the agency of users. Access in this sense is taken as an end in itself and the conscious choices made by individuals when opting for one or the other platform or service are largely overlooked. Secondly, even within digital inequality scholarship, the concept of access remains predominantly 'equipment-centered'. As a result, most policies aiming at reducing the inequalities driven by the digital tend to understand access as the provision of physical artefacts to all.

"Access is not a single decision to purchase a particular technology but a continuing process of getting access to new versions of hardware and software, peripheral equipment and subscriptions" (Van Dijk, 2017:2). While we agree with the fact that access is a continuing process, our research shows that it is not only about "*getting access to new version of hardware and software, peripheral equipment and subscriptions*" (Van Dijk, 2017:2); within a polymedia environment access becomes gradually more about the possibility of accessing various services, regardless of the hardware or the software, for



particular goals. It does not imply that such equipment is meaningless; rather, it is secondary in importance when it comes to digital engagement.

Shifting from platforms to services

To answer their communications needs, we observed in our research how individuals combine and express themselves through a varied range of media. Whereas limited to one or two media, the communication opportunities afforded by the current development of technology enabled our participants to access dozens of different platforms and services to achieve their purposes. Looking closer at the diversity of combinations and emergent digital practices, our findings suggest that having access implies the ability for each individual to achieve specific goals. As such, digital engagement is perceived as a creative process whereby the possibility of accessing the services needed is regarded as more important than the platforms through which these services are approached.

Therefore, we conceptualize the shift in access at two levels: (1) at level of the infrastructure, which refers to the reasons why individuals choose a particular service and highlights the fact that access is less and less a matter of equipment; and (2) at the level of services which stresses the agency of users in combining several platforms and services to meet their needs. While these two levels are theoretically distinct, they intersect as people use and incorporate different technologies. It must also be noted that these levels are not definitive, nor should they be understood in a hierarchical manner; rather, they give an account of the entanglement between technology and practices, between technological and social, and the significant forms and variability of the concept



of access. These two levels are essential for the rethinking of the concept of access insofar as digital inequality studies too often focus on what individuals *should* aspire to gain from digital technologies and seldom pay attention to the outcomes that individuals *desire* to gain from their time spent online.

The infrastructure level

Polymedia describes this emerging environment of unrestricted access to a multiplicity of interconnected media and devices which no longer exist independently from each other but evolve in synergy with one another (Jansson, 2015). In a polymedia environment, the focus of users gradually shifts from attention to the particular qualities of a technology (e.g. cost) to an emphasis on the existing range of possibilities available to fulfill their social and emotional needs. Indeed, we observed in our research that the use of digital media in the intimate sphere for instance was less a matter of exchanging information per se, but technology was actively used for social and emotional purposes. As one of our respondents told us:

Relations with family members are always with WhatsApp of course. Nowadays we all have a WhatsApp group with either sides of the family. We do not see each other every day and we do not hear from each other every day but with WhatsApp it is all more accessible and fun to share a silly picture and laugh together.

Male, 1st Life category, Middle Educated

Looking at the media-richness that characterizes the Western context, our findings suggest that digital (dis)engagement or the decision to use – or not use – a particular



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4 technology is not always determined by traditional factors such as motivation or attitudes;
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6 rather, it is increasingly dependent on the applications and services that are perceived to
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8 be the most adequate to achieve the desired objective such as communicating with loved
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10 ones.
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15 Seven, years ago, I bought a computer to be able to answer to my grandchildren who
16 were always telling me: 'Listen Gran'ma you have to keep up!' So I bought a computer
17 and I started computer lessons.
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19 Female, 3rd Life Category, Low Educated
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22 One of the biggest triggers for me, the reason why I decided to use Facebook and
23 Instagram is actually because I wanted to be able to communicate with my children and
24 my grandchildren, and also to be able to talk with my family, you know to keep the
25 social contact.
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27 Female, 3rd Life Category, Middle Educated
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30 Yet maintaining this constant communication is sometimes constrained by
31 infrastructural phenomena such as (1) data-plan costs, Wi-Fi reception, phone costs; (2)
32 limitations of specific devices such as laptops or mobile phones; (3) specific platforms and
33 their apps, not selectable features of an app because of outdated devices. (Schultz &
34 Baym, 2015).
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37 To keep contact with my family it is cheaper to talk on WhatsApp or Skype rather than
38 via phone calls, because they live quite far away. And so I realized that using WhatsApp
39 or Skype is actually gain of time and I can save money so I find it quite cool.
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41 Female, 1st Life Category, High Educated
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This shift towards increasing access to services rather than a focus on infrastructures is equally noticeable when it comes to routine administrative procedures such as a visit to the doctor, paying taxes or mobile banking.

Another reason why I use my smartphone is actually to have access to the mobile banking with the Belfius² app. I used to do all the banking operations via my computer with a banking case but now that I have the app I find it much easier via my smartphone.

Male, 1st Life Category, Low Educated

What these accounts essentially reveal is that individuals are less and less tied to specific infrastructures, whether these are particular devices such as smartphones or limitations such as Wi- fi reception. Ultimately, access is experienced or performed through the 'omni presence' of services, that is to say the multiple channels through which a service can be used and reached, via smartphone, laptop, tablet, through or without Wi-Fi connection.

I have a tablet, a smartphone and a laptop which each have a precise use. The laptop is for me the more polyvalent tool and it is the most comfortable to use because the screen is bigger, the storage capacity is high, because I can save documents, etc.... This allows me to watch movies because the screen is bigger (...) My tablet allows me to move a lot. I use it to look up itineraries, to go to restaurants or other useful stuffs. And my smartphone is purely a communication tool. I only use it for calls and Sms, and then interpersonal communication. With my laptop plus my tablet, I usually go on WhatsApp, or on groups where I communicate a lot with more than one person at the time, whereas my smartphone is always one-on-one communication (...) they are distinct objects which allows me to choose.

Male, 1st Life Category, High Educated

² Belgium bank



The term 'omni', meaning 'every' or 'all' suggests the integration of multiple media and the creation of complex matrices of possible ways to achieve the desired outcome. Within a polymedia environment, the 'omni presence' of services ultimately implies that the boundaries between equipment cease to exist giving thus way to a brand new approach to the notion of being online.

The service level

The service level points to the agency of users when choosing for a particular medium. Indeed, Madianou and Miller (2012; 2013) show that, in navigating the polymedia environment, few individuals confine themselves to a single medium, but instead, actively choose and combine an array of different media to create their own personal repertoires of communication. People *choose* the medium through which they desire to achieve their communication purposes and they *choose* the scale at which these interactions occur. When describing the services used to communicate, we observed in our research that most of the participants attribute affective qualities to their use of specific services without ever making explicit connections to the platform used. For instance, when asked how WhatsApp group chats influence daily interactions with close social networks, one participant revealed that because of this new way of communicating she had the feeling of being closer to her family. The fact that she could exchange pictures, videos and funny memes with a group of her choosing, and this from virtually all possible devices was perceived as expanding the scope of the intimate. Instead of waiting to see each other to exchange pictures or talk about sensitive topics, the group chats allowed this respondent to share important moments with her family while they were happening:



I certainly noticed another way of communicating with people compared to before when you had to send SMS or call, which I do much less now because I use WhatsApp. So now I have different friend groups, but also family groups, one for family on my mother's side and one for other family members (...) we know much more about each other and I find it quite cool.

Female, 1st Life Category, High Educated

Yet, when deciding to communicate with her boyfriend, the same respondent decided to opt for another service because it came with the added possibility of synchronizing their agendas. As such, the service level reveals that digital engagement is not solely shaped by technological affordances or constraints. Rather, as people become less and less tied to their infrastructures, each digital decision becomes more about choosing the service that will best enable them to reach their goal, whether this goal is sharing pictures within a close social network or finding information. Within this environment of communicative opportunities, our research shows that the goals people want to achieve and the needs they need to meet (communication, leisure, ...) will determine the types of media that work best to fulfill these wants. As such, the service level highlights the active and complex role of individuals in fitting in and adapting digital tools to their lives. Understanding digital technologies as structures of affordances makes it possible to discern how people actively 're-socialize technology' (Madianou and Miller, 2012; 2013), that is to say, they gradually 'alter' particular media to fit their expectations and needs. Yet, the agency of individuals within the context of digital inequality studies is often portrayed as something that should be developed but seldom acknowledged as being already present in the daily uses of individuals. We thus wish to expand the research on digital inequality by emphasizing the inherent agency of users, despite skills and inequalities of access, when



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4 choosing or ‘altering’ a technology. Using the concept of polymedia to explain the shift in
5 access thus allows us to point to a new understanding of the link between the social and
6 the technological, between agency and technology.
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12 ***Implications of the shift in access*** 13

14 **Motivational access: attitudes versus needs** 15

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20 The shift from platforms to services reveals that motivation is not solely spurred by
21 attitudes, whether positive or negative, but is contingent to individuals’ needs. According
22 to Van Dijk’s motivational access theory (2005), (non)-uses as well as (dis)engagement
23 are determined by attitudes towards digital media. Put differently, the more positive the
24 attitude of users, the more likely they are to engage with digital technologies (Reisdorf,
25 2017). In that sense, failing to learn, use or adopt technologies is normatively predicated
26 upon having the ‘wrong’ attitude and implicitly reports the responsibility on users without
27 ever trying to understand what they seek to draw out from their engagement online. While
28 we agree with the premise according to which without motivational access – that is to say
29 without actual incentives, there will be no physical access (Van Deursen and Van Dijk,
30 2015), we argue against the idea that this motivation or incentive to use digital
31 technologies is solely shaped by positive or negative attitudes towards digital
32 technologies. Rather, we contend that it is the needs – more importantly the extent to
33 which these needs can be answered, and not the attitudes, that shape motivational access
34 and predict subsequent engagement. In other words, individuals will be motivated if they
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have the feeling that their needs – whether it be the need to find a job, or the need to skype with a spouse – are met.

During our research we came across various participants who either had recently lost their jobs or were in the process of changing their career path. For some of them, internet and digital technologies were quite new, yet they were also aware of the fact that with the increasing digitization of society, finding a job essentially meant learning to use digital tools. Regardless of any previous attitudes or perceptions towards the digital – either good or bad – they decided to engage with the digital to answer their particular needs, namely the need to find a job:

I was 49 and I had studied quite a lot in my life but I realized that if I ever wanted to be able to work in the administration like I wanted, I had to master digital tools. So I decided to go on and follow some computer lessons.

Female, 3rd Life Category, Low Educated

For other participants, the possibility to keep in touch with their loved one, and consequently the possibility to answer their need to communicate was a strong motivation:

We started using Skype when our daughter left for the United States so that we could keep contact with her and so that she could send us pictures from her new home.

Female, 3rd Life Category, Middle Educated

Henceforth, we see that motivation to use digital technologies does not appear out of thin air, nor can it be solely attributed to attitudes or perceptions; it has to be connected to the



wants of individuals, and in order to cultivate the motivation of individuals it is important
that we understand their needs.

Putting the needs first

This argument brings us to the second conclusion elicited by the shift from platforms to services, namely the importance of starting from people's needs when looking at digital inclusion, and the necessity to put the needs of citizens at the forefront of the digital agenda. Indeed, most of the time when trying to explain why some people are less likely to fully engage with digital technologies, individual characteristics such as age or income are taken as start and end point of the analysis. This approach assumes that these stable characteristics are what drives ICTs' adoption and forsakes to focus on the processes of the everyday life. It is not to say that socioeconomics characteristics do not play a role in digital engagement – obviously indicators such as education or income still influence processes of inclusion. Nevertheless, we contend that these macro-structural constrains should not be the only focal point of interventions; rather, it is our belief that digital inequality research as well as digital inclusion policies should pay a renewed attention to the social environment of users as having a tremendous impact on the development of digital autonomy. In practice, we argue for a shift from overcoming material access to understanding personal needs. Disengagement is not always due to economic factors; most of the time, it results from the inability of users to see or find answers to their needs (Helsper, 2017). As such, instead of penalizing them for being disinterested, the question that should be asked is: have their needs been met? Hence, we should move towards understanding what drives individuals, what they need – to communicate, to find a job,



to create a business – in order to incorporate these realities in the overall vision regarding the setting of policies and initiatives that contribute to provide solutions for the mechanisms of digital exclusion.

Digital Fluidity, the new metaskill

The third conclusion elicited by this shift from platforms to services is on the necessity to develop trainings with ICTs beyond the mere material equipment. Indeed, for most of the computer lessons, the use of platforms (laptops, desktops...) is still the primary means of teaching. Yet, since access is increasingly focused on services, teaching how to use ICTs should not revolve around learning how to use Microsoft 2008 but should instead focus on teaching people how to use specific services on a variety of platforms.

Moreover, what is commonly noticed in computer classes is that as soon as a training is over, people are again in need to be tutored because the interface has changed; as such, they are unable to intuitively use their digital tools once an update has been made.

I followed the classes on the computer and the other one on the smartphone and then another one on how to take a picture but I have to go back and take the classes again because something changed and all I learnt is gone.

Male, 3rd Life Category, Middle Educated.

However, at the pace at which technological innovations are happening, it is not likely that people will even have time to refresh their skills before a new update is made. Henceforth, as access moves from platforms to services, it is essential to center the development of digital skills on building a fluidity of use across platforms and equipment.



We thus introduce the concept of digital fluidity as a metaskill for autonomous use. We define this metaskill as the ability to move fluidly between platforms and services. In other words, digital fluidity is technology made intuitive and speaks of this easiness of flow, in and out of services, that allow people to cumulate, aggregate knowledge and sophisticated sets of skills that they can in turn transfer to other media and services. As such, we argue that by allowing individuals to develop an intuitive understanding of the technology they encounter, digital fluidity helps people deal with the abstractness and the non-perceivable properties of the digital. As access moves from platforms to services, becoming a better learner is increasingly more important than learning the right thing.

The concept of digital fluidity is however not an end in itself; it still rests heavily on unequal distribution of resources, whether mental, social or cultural. Indeed, the individuals who showed the most fluidity in our research were generally the most educated, the youngest (between 25 and 40 years old), and very often male. Yet, the added value of this concept is that it recognizes the interrelationships between skills rather than analyzing them in isolation and draws attention to the dynamism of the learning process within a constantly evolving technological environment.

Conclusion

The shift in access, from platforms to services, conceptualized through the theoretical lens of polymedia highlights the changing dimensions of the concept of access. However, the concept of polymedia, in accounting for the fact that people now use and combine a



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5 multiplicity of devices to achieve their needs, does not pay enough attention to those who,
6 from the start, find themselves excluded from the digital either because of low skills or
7 because of precarious economic conditions. The agency of users, or the ability to choose
8 between different media within a polymedia environment is at the disposal of every
9 individual but not everyone has the same opportunities when it comes to making these
10 kinds of choices. As access shifts from platforms to services within a society increasingly
11 digital by default, our findings suggest a deepening precarity for individuals unable or
12 unwilling to keep up with the digital. This risk of exclusion is not merely limited to
13 exclusion from specific benefits provided by digital media, such as access to e-commerce
14 or e-government, but it ultimately means being left out from social and societal systems
15 that are increasingly reliant on technologies.
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32 In rethinking access, we wish not only to point out to a renewed understanding of what it
33 means to have access, but equally to expand the scope of digital inequalities scholarship
34 and advocate for a reassessment of digital inclusion initiatives in light of the present
35 technological environment. As access shifts from platforms to services in a polymedia
36 environment, new digitized information becomes accessible to all on an equal basis
37 (online tax forms, administrative documents...) but more than the availability of
38 resources, the ability to translate that access into beneficial outcomes is directly
39 proportional to the already existing resources of those able to take advantage of the
40 integrated structure of affordances provided by recent technological development. As
41 such, the three implications elicited by this shift – (1) motivational access is not only about
42 attitudes; (2) the needs of individuals should be at the forefront of digital agendas; (3)
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4 digital fluidity as metaskill for autonomous use - contribute to enlarge the reflection
5 around issues of digital exclusion.
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REIMAGINING SUSTAINABILITY: COMMUNICATION AND MEDIA
RESEARCH IN A CHANGING WORLD

Digital (dis)empowerment in the digital world: an empirical perspective from a life course perspective

Axelle Asmar
Ilse Marën
Imec-Smit-Vub

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CONCLUSION

INTRODUCTION

The increasing digitization of public as well as private services is progressively posing a threat for individuals and communities that do not possess the necessary tools to handle the new digital ecosystem. As shown by recent studies (Van Dijk 2005; Helsper 2008; Mariën et al., 2013), the traditional discourse that very often correlated digital exclusion with social exclusion and deprivation is no longer valid. Indeed, there is no longer a clear-cut view on the groups at risk of being or becoming digitally excluded.

As such, distancing from the traditional dichotomy – included versus excluded populations groups, this paper argues that recognizing how social and digital inequalities operate require to take into account that digital inequalities are more than a mere issues of access: digital and social exclusion are multidimensional social processes reflecting broader types of inequalities.

Thus this leads us to two broad questions: first, with the increasing digitization of services, both public and private, what new skills and literacies will be needed in order to sustain an autonomous and empowered use of these services? Second, what range of motion will be left for those already excluded at the social and economic level?

To answer these questions, this paper builds on empirical materials to consider experiences with digital tools and series from a life course perspective. Based upon 90 in-depth interviews with respondents equally distributed across three specific life stage - 18-30; 31-50; 51-70 – this article aims at identifying the crucial aspects that define an autonomous use of digital media. The strength of this approach is that it allows to move beyond the emphasis on quantitative data to show from a qualitative analysis that (1) digital inequalities are highly related to life stages, and (2) various aspects define the daily needs and wants within a specific life stage.

1. THE DIGITAL DIVIDE DEBATE

1.1. SETTING THE SCENE OF THE DIGITAL DIVIDE

Since it became clear that information and communication technologies (ICT), and particularly the Internet, will play an increasingly significant role in all aspects of life, general concerns about inequalities related to ICT diffusion and adoption have grown in theoretical and political circles. Indeed, with the increasing democratization of internet, policies and academic debates have been built around the idea that development of digital technologies would lead to an information revolution that would change the way people live and interact with each other. The digital divide, defined as '*the gap that separates segments of society as well as whole nations into those who are able to take advantage of new ICT opportunities and those who are not*' (OECD 2000:3), is based on the deterministic assumption that mere access will automatically lead to a full of ICT, regardless of the various social and cultural contexts in which are embedded. Put differently, the notion tends to imply a singular demarcation between the digitally engaged and the digitally disengaged. With this definition in mind, numerous policies and

academic researches have focused on disparities in physical and material access with the idea that socio-economic status was the sole predictor of internet use.

As more people gained access to digital technologies, observers started noticing that certain kinds of people (whites, males, wealthy....) were more likely to use the internet than others. The strong differences *among* people with formal access to the internet encouraged researchers and policy makers to shift the debate towards understanding the patterns of inequalities brought to light and exacerbated by digital technologies. Indeed, the significant in the forms of information and the ways it was accessed by people showed the oversimplifying nature of the concept that too easily forecloses discussion about what is at stake for the unwired side of the divide (Ginsburg 2005).

1.2. THE CURRENT RESEARCH

This article thus inscribes itself in the continuity of researches on digital inequalities. Indeed, recent studies show that socio-economic background is no longer the sole predictor of digital exclusion (Mariën et al., 2013; Van Deursen& Van Dijk 2013...); as a result, groups at risk of being digitally excluded become even more difficult to identify. However, despite several exercises aimed at developing more comprehensive typologies (Rogers 2003; Rogers 2003; Livingstone & Helsper 2007), limitations in digital inequalities research - such as the lack of theoretical framework, the overemphasis of problems that are social by nature (Mariën& Prodnik 2014) – have soften the input if these valuable contributions. In this regard, individual characteristics have often bee taken as the start and end point of the analysis in trying to understand the processes that drive the adoption of digital media in the everyday life. Yet, this approach is often set out whitout clear theorization of how individuals influence each other or how social group practices affect the digital engagement of individuals.

As such, this article furthers the debate by exploring the ambiguities and contradictions as well as the relationships wrought, shaped, altered and challenged by and through digital media. Most if the digital divide research has been focused on the *who* – who has access and who doesn't – when we should be paying attention to the *how* – how are individuals making sense of digital technologies in their daily lives?

2. METHODOLOGY

Since it is essential to study digital inequalities and digital inclusion from a broader contextual perspective, a life course approach allows to look at people's life progress and the consequences of digital differentiation according to the evolution of *both* circumstantial and structural aspects that define people's various needs, wants and constraints.

The life course perspective refers to a sequence of activities or events embedded in individual lives and aims at mapping, explaining and describing change in social positions over time (Elder 1994; Meyer 2009;). Hence, the aim of such an approach is to uncover specific moments or turning points in life that triggered or halted the use of digital media

to see if live events have had or still are still an influence on the current use of digital media. In this way, tackling the issue of digital exclusion and inclusion from a life course perspective is an innovative theoretical and empirical research insofar as it enables an in-depth and dynamic understanding of the meaning of individual's uses and their societal outcomes according to their particular life events and social roles across life.

In this framework, this article is built upon interviews amongst 90 respondents equally distributed across the three following life stages:

- The first life stage (18-30) which is the period in which young people are building autonomy in all domains of the social life (employment, relationships...) and steadily increasing their social, economic and political participation in society.
- The second life stage (31-50) is a period in which individuals are assumed to have developed autonomy and participate fully in society; however, the challenge at this stage is to maintain this autonomy and full participation while at the same time managing work, family and life hazards.
- The third life stage (51-70) can be characterized by the desire to remain active participants of society and to remain independent while ageing is considered an increasingly important policy challenge

Hence, the life course perspective is valuable insofar as it (1)- recognizes that different period of life influence status social identity, roles and rights in society; (2)- emphasizes the fact the developmental changes are continuous processes experienced through life and not just through particular episodes of narrow life phases.

3. RESULTS

Throughout this study we have aimed at looking at the manners in which digital media shape social practices as well as paying attention to the ways in which interpersonal medium of communication have come to increasingly play a role in facilitating the logistics of the everyday life (Haddon 2000).

It thus emerges from our research that there is no longer a single aspect of the everyday life in which digital media are not involved. Indeed, from managing a business to planning family holidays, it appears that digital media have become an integral part of the conduct of the everyday life. Following this observation, our research uncovered three main categories that illustrate where, how and why digital media have become so integrated into the fabric of daily life.

3.1. GEOMETRIES OF THE INTIMATE

Looking closely at the family levels and at the interactions and digital uses of the familial environment, our findings suggest that digital technologies play a major role in the household, on the one hand by creating new forms of intimacies within the household.

Indeed, as digital media steadily fill in every domains of life, it appears that digital applications (emails, instant messaging apps...) and especially social networking platforms (Facebook, WhatsApp....) are gradually becoming the mainstays of most social interactions within the family (Lomanowska 2016). In fact, regardless of age, and/ or educational and social background, almost all the respondents across the three life stages possess or are involved in group chats (on WhatsApp and Messenger generally) dedicated to intense communication with the family. These groups chat thus reconfigure the way people relate to each other by expending the opportunity for daily meaningful contacts, especially between family members locked in different space-time routines, whether because of work, school or business trips. It is what Jamieson (2013) concurs when looking at intimacy and personal relationships in the digital age: *"for both those living together but spending more time apart (living together apart) and families and relationships that think of themselves as a unit despite separation over distance (living apart together), such technologies assist intimacy by providing new ways of doing 'older things'* (2013:9).

One of the ways in which these new forms of intimacies are wrought within the household is through the organization of daily, seemingly mundane life activities:

I communicate a lot with my sister via Facebook Messenger or via SMS or WhatsApp and we have something like that because we also go babysitting once at my mother's niece and that just such an easy way to communication, if something is happening with the kids, or if something needs to be done once we arrive there... So yes, WhatsApp is important. (Female, 1st life category)

In this sense, digital media do not replace existing means of communication, nor do they render social contact obsolete; rather, they add a new layer of intimacy to existing relations and networks. This point is thus important to understand the notion of (dis)empowerment in the context of increasing digitization. Being able to keep in touch with one's network means being able to reach out for help when needed; it helps people cultivate and garner resources through their social networks.

On the other hand, these new cartographies of the intimate were experienced by some participants as alienating, especially when related to social media. In fact, some of our respondents, the increasing reliance on social media within the confine of the household was felt as particularly disheartening:

The peaceful idea of the family does not exist anymore.... How would I say that?... It's just that, if... when I am at home for example my wife is on Twitter or Facebook and my children there are connected continually with god knows who and if you are the only one that consciously tries to keep away from all that, then sometimes you may feel like quite a lonely soul. (Male, 2nd life category)

In this light, new forms of intimacy mediated by digital technologies might actually challenge social interactions and communication within the household and change the quality of family relations.

3.2. REACHING OUT FOR HELP: THE IMPORTANCE OF SOCIAL SUPPORT

Our focus in the household and the changing practices within the family unity led us to look beyond the micro-level to direct our attention on how larger networks of contacts – whether remote or face to face – influence digital engagement and the formation of digital

autonomy. Indeed, with the increasing digitization of service, having access to a social support is more and more important (DiMaggio&Hargittai 2010).

It appears from our research that most of the time, family and friend's networks greatly influenced how our participants adopted digital media, whether by increasing our participants' motivations to use digital technologies or by helping them develop their digital skills. For one of our participants, downloading applications was a complete mystery before she learned, by watching a close friend play a game on her smartphone, that not only these apps were free but that she could download them as much as she wanted. For another of our participants, the support of her daughters has been crucial in the development of her digital skills and the formation of her digitally autonomy, especially regarding services such as Instagram or Facebook.

Henceforth, the amount of social support to which a user has access is thus proving to be instrumental in the uptake and further usage of digital tools. Indeed, in many cases, the social environment provides a form of vicarious experience (Bandura 1977) whereby participants, seeing their close relatives engaging in digital activities, can be motivated into investing efforts in learning and using digital technologies:

At some point, my interest in trying and experimenting Photoshop came from a friend. I never followed any particular class, just trials and errors. (Male, 1st life category)

However, our findings also suggest the presence of strong social support can, in some cases, hinder digital engagement. It is often the case in couples where one spouse is more digitally skilled than his/her partner and takes up all the tasks necessitating the use of digital media, from online banking to printing a travel itinerary.

(talking about digital media) It is a bit regrettable that my wife is much better at that than myself. She also came into contact with it very quickly so she has been ahead of me for quite some years now, and she is just better at it anyway(..) It has advantages but it has its drawbacks (laughter). If, so to speak she decides that she will take care of something tomorrow, then I am almost... I am helpless in many cases. (Male, 2nd life category)

In this way, our findings confirm the research conducted by Eynon and Geniets (2015) who found that "*in some cases (...) peers seem to actually stymie the skill development of our participants by doing tasks on their behalf*"

3.3. SOMETIMES LIFE GETS IN THE WAY...: TURNING POINTS IN DIGITAL ENGAGEMENT

This last part puts an emphasis on the contexts in which digital media are used and their implementation according to circumstances and life events. Indeed our research shows that events such as the birth of a child, retirement, starting higher education or a new job, can enhance or constrain digital engagement in very different ways for very different people. It thus emerges from our findings that nearly all the transformations in digital practices and engagement were triggered by life events.

I am in my forties and I have had two small children quite late so my world now is getting up in the morning, school, football, music school, going to work, coming back home, sprinting, driving around...Then there is not much time left at 11 o'clock to think about anything else expect putting yourself in a comfortable sofa.so that is just a very busy phase

in a mother's life where there is actually little room to actively engage or follow-up all with digital technologies. (Female, 3rd life category)

Now that I am retired I have ore time than before which means more time to go and look for things online. I know more about the world than five years ago, because I am going to look a lot more things up online. In the time, when I was working, I had much less time for such things and less energy, when you come back in the evening usually you have no more energy for anything else. (Male, 3rd life category)

Henceforth, what is important to note is that our findings show that digital engagement cannot be simplistically defined in terms of use and non-use. It is rather more accurate to say that people engage and adopt digital media in a series of 'stop-pause-repeat process', often dictated by life events such as the birth of a child or the death of a spouse. As such, the meaning that people attribute to digital medias as well as their use thereof shift over time.

4. DISCUSSION: RETHINKING ACCESS FROM PLATFORMS TO SERVICES

The basic assumption of most research on the digital divide is that once people get access to the internet, they will instantly begin to use and consequently catch up with the rest of connected side of the population. As such, it reflects one of the shortcomings of the digital divide research which is failing to see access through a spectrum approach ranging from the ability to benefit from this access to the inability to seize the opportunities provided online.

Hence, the increasing digitization of services forces to rethink access in social as well as technological terms: the question is no longer who has a network connection at home, but rather what benefits are people able draw offline from their digital engagements? It is thus our perception that rethinking access opens up a broader understanding of the term 'access' no longer in reference primarily to infrastructures and systems, but to services. Indeed, our findings suggest that for most of our participants, access to digital technologies ceases to be solely about the platform and but concerns the services they wish to have access to achieve specific purposes. Put differently, rethinking access from platforms to digital services does not mean that traditional equipment such as the computer or the smartphone are now on the verge of becoming obsolete; rather, we argue that they are secondary to our participants' priorities. Therefore, this article contributes to the research on digital inequalities by highlighting the fact that having access to digital technologies is no longer matter of being connected; instead it implies the ability for each individual to achieve their specific communicative purposes.

As access shifts from platforms to services, our study comes with a cautionary tale as our findings suggest the deepening digital precarity of individuals unable or unwilling to keep up with the digital. Such citizens are becoming steadily penalized by not being able to share and receive information necessary for their inclusion and participation in society. As predicted by Van Dijk (1999:236), "*advancements in technology create situations in which those who are limited to a very basic set of skills now will be outpaced by those who are ahead in their ability to select and process information*".

This risk of exclusion is not merely limited to exclusion from specific benefits provided by digital media – such as access to e-commerce or e-governments- but this growing risk

of exclusion is disquieting because it also insinuates being left out from societal and social systems that are increasingly reliant on digital technologies (Mason&Hacker 2003).

CONCLUSION

It is by now undeniable the production and use of digital media have become integrated into every spheres of the everyday life. Far from being a revolution, they constitute an evolution of older modes of communication and interaction, facilitating social reproduction, cultivation social interactions and establishing collective interests. However, despite such achievements the digital age still betrays a structural myopia built on the deepening of exclusion for certain groups in society; the concern here is that "*terms like the digital divide too easily foreclose discussion about what is at stake for those who are out of power* (Ginsburg 2008:9)

This empirical contribution has made clear that crucial issues of digital inclusion are not just technological – that is to say that they should not be viewed solely from the lens of physical access to digital media – but have to apprehended at the social and cultural level. Indeed, the issue of inclusion and exclusion is social insofar as it entails the diversity of formal and informal support networks that have a great influenced on the adoption or rejection of digital media; studying issues of digital in/exclusion also means looking at cultural components such as the values and expectations that enhance or constraint access and use of digital technologies.

It is our belief that digital divide research as well as digital inclusion policies do not pay enough attention to soft skills and de social environment of users as having a tremendous impact on the development of digital autonomy and empowerment. As perfectly captured by one of our participants: "*I often wonder, with all this digital, how are things going to evolve? It is becoming an essential thing in society, a right almost as important as electricity or heating. It is no longer enough to have a connection but you need to have minimal skills to be able to take part in all of it*"; yet, what happens then to our society when access and minimal skills are no longer enough?

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De invloed van sociale ondersteuning op digitale zelfredzaamheid

Wie help wie, op welke manier en wanneer bij het gebruik van digitale toepassingen?

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1. Inleiding

Het publieke en private leven wordt steeds sterker beïnvloed door de digitalisering. Publieke diensten in verschillende levensdomeinen zoals werk, gezondheid en onderwijs worden steeds verder gedigitaliseerd. Private sociale banden worden onderhouden en/of ondersteund door digitale communicatie onder andere in de vorm van sociale media. Dit was reeds het geval voor Covid-19, maar tijdens de crisis, de lockdown én in tijden van social distancing zijn deze processen nog versterkt. Het risico op digitale ongelijkheid en digitale uitsluiting zijn een onvermijdelijk gevolg.

Digitale ongelijkheid verwijst naar de ongelijke verdeling van de voor- en nadelen van digitale toepassingen en digitale communicatie. Deze ongelijkheid wordt veroorzaakt door een ongelijke verdeling van de middelen die nodig zijn om zich het digitale volledig toe te eisen. Deze middelen omvatten: 1) toegang tot de technologie (digitale toestellen, internet- of data-abonnement), 2) de vaardigheden om gebruik te maken van digitale technologie en hier een voordeel uit te halen, en 3) de sociale ondersteuning die emotionele, informationele en instrumentele hulp bieden bij het verwerven van kennis over en het oplossen van problemen met digitale technologie. De term **digitale uitsluiting** verwijst naar sociale uitsluiting, veroorzaakt door de digitalisering van de samenleving. De drempels waarmee mensen geconfronteerd worden zijn zeer divers en situeren zich op de verschillende niveaus van middelen. **Digitaal zelfredzaam** zijn die personen die over voldoende middelen beschikken om zich zelfstandig te bewegen in de digitale wereld. Digitale zelfredzaamheid is natuurlijk nooit absoluut. **Digitale toepassingen** verwezen in de jaren 90 naar een PC met internetconnectie en het gebruik van het internet. Door de toenemende digitalisering van dienstverlening, de opkomst van mobiele digitale communicatie en de doorbraak van sociale media verwijzen digitale toepassingen anno 2020 naar een breed scala van digitale activiteiten, diensten en communicatie.

In dit hoofdstuk gaan we sterker in op de problematiek van **sociale ondersteuning voor digitale inclusie**. Wie vraagt en krijgt hulp van derden, zowel van individuen als van organisaties? Wat omvat die ondersteuning en welke effecten heeft dit op digitale uitsluiting? Sociale ondersteuning is onderbelicht in de wetenschappelijke literatuur rond digitale gebruik. Bovendien wordt sociale ondersteuning vaak enkel onderzocht voor groepen die uitgesloten dreigen te worden. In ons onderzoek brengen we alle vormen van sociale ondersteuning in kaart, voor alle types van digitale gebruikers. Dit geeft een ruimer en complexer beeld van hoe sociale ondersteuning werkt. Het stelt ons ook in staat anders na te denken over een digitaal inclusiebeleid. Het concept van **digitale inclusie of digitale insluiting** is actie- en beleidsgericht. Het verwijst naar de acties en oplossingen die nodig zijn zodat iedereen ten volle kan participeren in de digitale samenleving.

In wat volgt definiëren we het concept van sociale ondersteuning voor digitale inclusie en beschrijven we de huidige stand van zaken in de literatuur. We stellen een nieuwe typologie voor die alle vormen van steun omvat. Na een discussie over de belangrijkste inzichten sluiten we af met een reflectie over Covid-19 en de gevolgen ervan voor digitale inclusie.

Het hoofdstuk is gebaseerd op onderzoek en data afkomstig van het IDEALiC onderzoeksproject. Dit project liep van 2015 tot 2019 in het kader van Brain.be van het Federaal Wetenschapsbeleid (Belspo). Het doel van het onderzoek was om alternatieve kaders te ontwikkelen voor onderzoek naar digitale uitsluiting. Klassiek onderzoek naar digitale uitsluiting gaat uit van socio-economische factoren voor het verklaring van digitale uitsluiting—en in aansluiting hierop voor een digitaal inclusiebeleid. Het IDEALiC onderzoek breekt met die traditie. Het start van de idee dat levensfasen en bepalende levensmomenten—het krijgen van kinderen, een eerste job, etc.—een impact hebben op de ontwikkeling van mensen. Wat zijn de leefpatronen van mensen, hun noden en behoefte, en daaraan gekoppeld hun digitaal gedrag? Het IDEALiC onderzoek kijkt vanuit dit breder en vernieuwend kader naar risicofactoren en -groepen met betrekking tot digitale technologie.

2. Sociale ondersteuning en digitale inclusie

De centrale vraag van het wetenschappelijke onderzoek naar sociale ondersteuning is ‘*Who gives what to whom regarding which problems?*’ en volgens Jacobson (1986) moet daaraan toegevoegd worden ‘*and when?*’ Sociale ondersteuning kan—in lijn met Caplan (1974) gedefinieerd worden als ‘formele en informele relaties en groepen waarvan een individu emotionele, cognitieve en materiële steun krijgt om een stressvolle situatie te beheersen’ (onze vertaling) (in Jacobson, 1986). Volgens *Taking Charge of your Health and Wellbeing* van de University of Minnesota ‘sociale ondersteuning betekent dat mensen een beroep kunnen doen op vrienden, familie, of andere mensen in tijden van nood of crisis. Het draagt bij tot een bredere focus en een positief zelfbeeld. Sociale ondersteuning verhoogt de levenskwaliteit en voorziet een buffer tegen mogelijk negatieve gebeurtenissen in het leven’ (onze vertaling) (*Taking Charge*, 2020, zie ook Cobb, 1976).

Zoals reeds aangegeven is sociale ondersteuning onderbelicht in de wetenschappelijke literatuur rond digitale gebruik (DiMaggio, Hargittai, Neuman & Robinson, 2001; Helsper, 2008; van Deursen, 2018; van Deursen, Helsper, Eyon & van Dijk, 2017; van Deursen & van Dijk, 2019). Nochtans blijkt uit recente studies dat sociale ondersteuning een belangrijk effect heeft op mechanismen van digitale in- en uitsluiting (Mariën & Baelden, 2016; Mariën & Prodnik, 2014; Mariën & Van Audenhove, 2010). Niet iedereen heeft toegang tot hetzelfde niveau van sociale ondersteuning. Een tekort aan sociale ondersteuning op digitaal vlak verscherpt dus mogelijke andere vormen van digitale uitsluiting. In wat volgt overlopen we kort de drie belangrijkste studies met betrekking tot sociale ondersteuning voor digitale inclusies en hun belangrijkste bevindingen.

Van Deursen et al. (2004) onderzoeken hoe mensen omgaan met beperkte digitale vaardigheden, welke vormen van ondersteuning er voor hen voorhanden zijn en hoe ze die identificeren. Ze analyseren of internetvaardigheden een effect hebben op het verwezenlijken

van positieve resultaten voor het individu én of vormen van ondersteuning hierop een bijkomend effect hebben. Op basis van een uitgebreide representatieve survey, ontwikkelen de onderzoekers een typologie van drie vormen van sociale ondersteuning: 1) *de onafhankelijken (independents)*: gebruikers die geen behoefte hebben aan ondersteuning, 2) *de sociaal ondersteunden (socially supported)*: gebruikers die een beroep doen op familie en vrienden, 3) *de formele hulp zoekers (formal help seekers)*: gebruikers die uitgebreid beroep doen op een helpdesk, computer experten en formele opleidingen. Het onderzoek toont aan dat de *onafhankelijken* eerder mannelijk zijn met een hoog opleidingsniveau, terwijl de *sociaal ondersteunden* eerder vrouwelijk zijn met een laag opleidingsniveau of/een vaker werkloos zijn. De *formele hulpzoekers* hadden eerder een laag tot gemiddeld opleidingsniveau met een hoger niveau van tewerkstelling dan de *sociaal ondersteunden*. In deze studie toonden van Deursen et al. (2004) aan dat patronen van ondersteuning vragen en gebruiken, een belangrijke impact hebben op de ontwikkeling van digitale vaardigheden, op de voordelen die iemand haalt uit het gebruik van het internet, en op de kwaliteit van de ontvangen ondersteuning.

Courtois en Verdegem (2016) argumenteren dat sociale ondersteuning een onontbeerlijke bron is van sociaal leren. Waar van Deursen et al. (2014) focussen op de link tussen digitale vaardigheden en sociale ondersteuning, richten deze auteurs zich op de samenstelling en de socio-economische achtergrond van sociale ondersteuningsnetwerken en hun verklarende rol in digitale ongelijkheid. Gebaseerd op een kwantitatieve analyse komen zij tot drie alternatieve profielen: 1) *de thuis genetwerkten (domestically networked)*: gebruikers die een beroep doen op familie en vrienden voor hulp bij digitale problemen, 2) *de extern genetwerkten (non-domestically networked)*: gebruikers die vooral een beroep doen op collega's en vrienden, 3) *de zelfredzamen (self-reliant)*: gebruikers die zelden hulp vragen en in staat zijn problemen zelf op te lossen. Volgens deze studie zijn de *thuis genetwerkten* vaak oudere vrouwen in grotere families en zijn ze bovengemiddeld werkloos, de *extern genetwerkten* eerder jongere werkende mannen met een gemiddeld inkomen en deel van kleinere families, de *zelfredzamen* zijn eerder jonge gebruikers die vaak meerdere talen machtig zijn. De studie levert twee belangrijke inzichten op. Ten eerste, mensen die hulp zoeken in een eerder familiale kring zijn doorgaans afkomstig uit achtergestelde sociale en economische groepen, hebben een lage motivatie om digitale technologie te leren gebruiken en hebben beperkte vaardigheden. Ten tweede, sociale integratie—de mate waarin iemand deel is van sociale netwerken—is een belangrijke factor om ondersteuning te kunnen vragen en krijgen. Sociale en digitale factoren gaan dus vaak hand in hand.

Helsper en van Deursen (2016) combineren een kwantitatieve en kwalitatieve analyse van sociale ondersteuning en de invloed ervan op digitaal gebruik. Ze gebruiken verschillende indicatoren om zowel het potentiële als het effectief gebruik van ondersteuning te meten, alsook om het aanbod en gebruik van ondersteuningsbronnen in kaart te brengen. Ze onderscheiden dus tussen potentiële ondersteuning—hulp waar gebruikers denken toegang toe te hebben—en effectief gebruik—hulp waarvan gebruikers effectief gebruik maken. Volgens hen wordt informele ondersteuning—ook gedefinieerd als *sociaal ondersteunden* (van Deursen et al., 2014) of *thuis genetwerkten* (Courtois & Verdegem, 2016)—meer gebruikt door gebruikers met een laag niveau van digitale vaardigheden, terwijl gebruikers met een hoog niveau van socio-economische middelen eerder een beroep doen op formele bronnen van ondersteuning zoals collega's op het werk, experten in hun netwerk, etc. Deze auteurs bevestigen dat ongelijkheden op het niveau van sociale ondersteuning digitale ongelijkheid

kunnen versterken. Diegenen die sterke problemen ondervinden in het online gebruik, zijn vaak diengenen die beperkt toegang hebben tot kwalitatieve sociale ondersteuning met betrekking tot digitaal gebruik.

Onze belangrijkste kritiek op deze studies is dat: 1) deze studies vrij lineair socio-economische groepen linken aan types van sociale ondersteuning, 2) er voor gebruikers naast een gebrek aan digitale vaardigheden andere motieven zijn om sociale ondersteuning voor digitale inclusie te zoeken, 3) vooral de groep die van familie en vrienden sociale ondersteuning krijgt meer divers is dan laag opgeleiden, 4) de focus van deze studies te sterk gericht is op die groepen (sociaal zwakkeren, ouderen, werklozen) waarvan men traditioneel aanneemt dat ze makkelijker digitaal uitgesloten worden. Bovendien missen deze studies een correcte definitie van het concept sociale ondersteuning binnen een digitale context én zijn ze doorgaans sterk gebaseerd op kwantitatief survey-gebaseerd onderzoek (Courtois & Verdegem, 2016; Helsper & van Deursen, 2016; van Deursen, Courtois & van Dijk, 2014).

Ons onderzoek tracht sociale ondersteuning voor digitale inclusie te begrijpen als een sociaal fenomeen dat mogelijk iedereen treft en dus ruimer moet onderzocht worden. Om sociale ondersteuning in onderzoek naar digitale ongelijkheid te duiden, en om het concept duidelijk af te bakenen, introduceren we het concept van ***sociale ondersteuning voor digitale inclusie***.

We definiëren dit als “de hulp—emotioneel, instrumenteel en informationeel—die een individu verwerft en krijgt in zijn/haar netwerk in het gebruik van haar/zijn digitale technologie.”

Uit de definitie blijkt dat we niet volledig de klassieke literatuur rond sociale ondersteuning volgen die ondersteuning opdeelt in emotionele, cognitieve en materiële ondersteuning. Materiële steun maakt deel uit van de klassieke discussie van digitale kloof en toegang tot ICT. Hierin spelen persoonlijke relaties niet zo'n grote rol. Bovendien is er een uitgebreid wetenschappelijk corpus over materiële toegang. Daarom focussen wij op emotionele, instrumentele en informationele steun. We definiëren **emotionele steun** als ondersteuning in de vorm van aanmoediging en begeleiding in tijden van verhoogde stress, veroorzaakt door het omgaan met digitale technologie, bijvoorbeeld bij knoppenangst. **Instrumentele steun** is een taakgeoriënteerde vorm van ondersteuning, bijvoorbeeld wanneer een individu leert omgaan met technische aspecten van een computer. **Informationele steun** verwijst naar de begeleiding, het advies en de feedback die een individu ontvangt tijdens het leerproces. Sociale steun voor digitale inclusie verwijst dus naar de uiteenlopende vormen van sociale ondersteuning en naar de verschillende vormen van het verwerven van sociale ondersteuning. Van individuen die helemaal geen toegang hebben tot ondersteuning tot die individuen die steun krijgen omdat andere mensen hun digitale taken overnemen. Onze definitie van **digitale sociale ondersteuning**—kort voor sociale ondersteuning voor digitale inclusie—ligt in lijn met de meer algemene wetenschappelijke definities, maar verwijst specifiek naar de problematiek van digitale inclusie. Belangrijk om op te merken is dat de ondersteuning niet noodzakelijk digitaal moet zijn. In tegendeel, veel ondersteuning zal eerder de vorm aannemen van een face-to-face gesprek, een fysieke opleiding, een telefoongesprek of een handleiding. We maken een onderscheid tussen online ondersteuning (Youtube tutorials, online forums, etc.), ondersteuning in hechte sociale netwerken (familie, vrienden, collega's), ondersteuning in computer en technische centra, en geen ondersteuning. We onderscheiden verder tussen

diegenen die ondersteuning bieden aan familie, vrienden en collega's; diegenen die ondersteuning bieden online (bijvoorbeeld via fora) en diegenen die geen ondersteuning bieden.

3. Methodologie

De meeste studies over sociale ondersteuning voor digitale inclusie zijn gebaseerd op kwantitatieve analyses. Deze bijdrage is één van de weinige kwalitatieve analyses op dit vlak. Ze is gebaseerd op 85 diepte-interviews afgenoem van respondenten in drie levensfasen (zie Tabel 1.):

- 1) 18 tot 30 jaar: de periode waarin individuen meer onafhankelijk worden en hun sociale, economische en politieke participatie verhogen;
- 2) 31 tot 50 jaar: de periode waarin individuen verondersteld worden autonoom te zijn en ten volle deel te nemen aan het maatschappelijk leven;
- 3) 51 tot 70 jaar: de periode waarin individuen actief en onafhankelijk willen blijven participeren in de maatschappij en dit in het kader van een vergrijzingstendens die een aantal belangrijke beleidsuitdagingen met zich meebrengt.

Afgezien van de levensfase werden verschillende andere criteria gehanteerd in de selectie van de respondenten (zie Tabel 1.):

- Het niveau van opleiding: laag opleidingsniveau (geen middelbaar diploma), gemiddeld opleidingsniveau (middelbaar diploma) en hoog opleidingsniveau (minimum bachelor diploma);
- De familiale situatie: in een relatie, alleenstaand, inwonend bij ouders;
- De aanwezigheid van kinderen: geen kinderen, kinderen in huis, kinderen niet in huis;
- Sociale status: werkend, werkloos, gepensioneerd, student.

Het doel van deze selectiecriteria was om een gevarieerd aantal profielen te hebben over de verschillende levensfasen. De sampling had niet tot doel om statistische representativiteit na te streven, maar eerder om een evenredige representatie te krijgen over de verschillende criteria (zie Tabel 1). Het perspectief van de levensfasen laat ons toe om nieuwe inzichten te genereren met betrekking tot sociale ondersteuning voor digitale inclusie. Welke patronen worden zichtbaar over de verschillende levensfasen? Waar komen ze overeen? Waar divergeren ze?

Tabel 1. Overzicht van de respondenten en criteria

	18–30 jaar		31–50 jaar		51–70 jaar		TOTaal
Opleidingsniveau	V	M	V	M	V	M	
Laag	3	6	2	5	6	5	27
Gemiddeld	5	4	5	3	7	4	25
Hoog	5	4	5	6	4	8	32
Onbepaald	0	0	1	0	1	0	2
Totaal V/M	11	13	12	13	18	15	85
Totaal		25		25		33	

<i>Familiale situatie</i>	V	M	V	M	V	M	TOTAAL
In een relatie	5	5	5	8	13	10	46
Alleenstaand	5	4	4	5	8	5	31
Inwonend bij ouders	3	3	0	0	0	0	6
Weduw(e)(naar)	0	0	0	0	1	1	2
Totaal V/M	13	12	9	13	21	17	85
Totaal		25		22		38	
<i>Kinderen</i>	V	M	V	M	V	M	TOTAAL
Geen kinderen	10	12	5	4	3	3	37
Kinderen in huis	2	0	5	9	1	2	19
Geen kinderen in huis	0	0	0	1	16	12	29
Totaal V/M	12	12	10	14	20	17	85
Totaal		24		24		37	
<i>Sociale status</i>	V	M	V	M	V	M	TOTAAL
Student	5	3	0	0	0	0	8
Werkend	6	9	7	7	6	1	36
Werkloos	1	1	5	6	5	2	20
Pensioen	0	0	0	0	7	14	21
Totaal V/M	12	13	12	13	18	17	85
Totaal		25		25		35	

De interviews werden afgenumen tussen april en juni 2017-18. Voor een diepgaande beschrijving van 1) de selectie van de respondenten; 2) het opstellen van het code-boek, 3) de analyse van de interviews aan de hand van ons code-boek, verwijzen we naar Asmar, Van Audenhove en Mariën (2020).

4. Hulp zoeken. Naar een typologie van digitale sociale ondersteuning

We onderscheiden 6 types van ondersteuning en de daarmee verbonden karakteristieken (zie Figuur 1). Het doel van deze typologie is drieledig: 1) we willen het debat over sociale ondersteuning in het academische veld rond digitale ongelijkheid aanwakkeren, 2) we wensen de vaak onkritische studies rond dit thema kritisch in vraag te stellen, 3) we hopen dat het digitale inclusie beleid op basis van ons onderzoek digitale sociale ondersteuning beter kan afstemmen op de noden van burgers. We merken op dat types van ondersteuning elkaar niet uitsluiten. Gebruikers zullen verschillende types van ondersteuning combineren om aan hun noden te beantwoorden of kunnen over langere tijd verschuiven naar andere types van ondersteuning. Een zicht krijgen op deze verschuivingen noodzaakt lange termijn observatie—een opdracht voor verder onderzoek.

Figuur 1. Typologie van digitale sociale ondersteuning

Type Ondersteuning	Karakteristieken	Type Ondersteuning	Karakteristieken
Geen Ondersteuning	<ul style="list-style-type: none"> Laag niveau van digitale vaardigheden, vaak in combinatie met sociaal precaire situatie en/of sociale exclusie Erkennen dat hulp bij digitale technologie nodig is, maar weinig capaciteit om hulp te vinden door sociale isolatie In alle drie levensfasen te vinden (18-30, 31-50, 51-70 jaar) 	Ondersteuning uit het Netwerk	<ul style="list-style-type: none"> Zoeken ondersteuning in eigen sociale netwerken (familie/kinderen/echtgenoten/vrienden/goede collega's) Legt belang van sociale inbedding bloot: om steun te kunnen vragen is er nood aan integratie in sociale netwerken Meeste respondenten in de 2^{de} en 3^{de} levensfase (41-50, 51-70 jaar)
Ondersteuning uit de Gemeenschap	<ul style="list-style-type: none"> Steun komt voornamelijk van openbare computerlokalen en opleidingen Computerlokalen en opleidingen gezien als: <ul style="list-style-type: none"> Een weg uit potentieele uitsluiting, zowel sociaal als digitaal Een weg om sterker onafhankelijk te worden (voorbeld van eigen kinderen) Meeste respondenten in 3^{de} levensfase (51-70 jaar) 	Navolgende Leerder	<ul style="list-style-type: none"> Vragen niet explicet om steun maar leren door anderen na te volgen Vertrouwen op het leren van vrienden en familie, door hun gedrag gade te slaan en zelf te exploreren—learning by doing Meeste respondenten in de 1^{ste} levensfase (18-30 jaar)
Ondersteuning door Substitutie	<ul style="list-style-type: none"> Gebruiken zelf nauwelijks digitale media, maar vragen anderen in sociaal netwerk om specifieke taken voor hen uit te voeren (online banking, etc.) Binnen oudere koppels waar één persoon meer vaardigheden heeft of wanneer één persoon digitale media niet wenst te gebruiken Vandaar opdeling tussen a) steun door lage digitale vaardigheden, b) steun door lage motivatie Meeste respondenten in de 2^{de} en 3^{de} levensfase (41-50, 51-70 jaar) 	Zelfredzame Leerder	<ul style="list-style-type: none"> Zijn zelf zelden vragende partij voor hulp, maar zijn dat wel vaak voor anderen (in familiale context) Hebben een hoog niveau van digitale vaardigheden en digitale fluiditeit. Gaan makkelijk buiten hun comfortzone om nieuwe dingen te探索eren. Indien ze daarbij hulp nodig hebben, gaan ze online op zoek naar hulppronnen en leren ze door te doen. Meeste respondenten uit late 1^{ste} en begin 2^{de} levensfase (25-45 jaar). Meestal mannelijk en hoof opleidingsniveau.

4.1 Geen Ondersteuning

Gebruikers in de categorie *geen ondersteuning* hebben nauwelijks toegang tot digitale sociale ondersteuning. Ze hebben over het algemeen een laag opleidingsniveau en komen uit verschillende levensfasen. Op sociaal gebied is hun situatie vaak preair (werkloos, gepensioneerd, chronisch ziek). Ze beschikken over een beperkt sociaal netwerk. Op digitaal vlak verhinderen hun beperkte financiële middelen hen toegang tot hoogstaande kwalitatieve digitale tools. Gebruikers in deze groep beschikken vaak over zeer beperkte digitale vaardigheden. Deze reeds precaire situatie wordt erger door het feit dat deze gebruikers geen toegang hebben tot ondersteuning. De meeste gebruikers in deze groep erkennen explicet dat ze hulp nodig hebben—zelfs voor basisvaardigheden als het versturen van email—maar geven ook aan geen hulp te kunnen vragen indien ze deze nodig hebben. Deze categorie van gebruikers wordt niet geïdentificeerd in het huidige onderzoek. In de categorie *geen ondersteuning* ontbreekt het gebruikers aan emotionele, informationele en instrumentele ondersteuning.

Interviewer: Bel je iemand anders als je problemen hebt met je smartphone?

Respondent: Soms geef ik het op. Als ik in de problemen zit en ik weet niet hoe we het gebruiken, heb ik niemand om me te laten zien hoe we dit of dat doen.

Interviewer: Dus weet je soms niet hoe je het moet doen en geef je daarom op?

Respondent: Ja, het gebeurt. En aangezien ik geen computer heb, is het niet gemakkelijk (Vrouw, 28, inwonen bij ouders, geen kinderen, student).

Respondent: Ik zou dat wel willen, ja want anders maak je geen deel meer uit van de samenleving... het evolueert zo snel en ge kunt niet meer mee, hé, allee ja het is moeilijk te volgen. Ge zijt bijna verplicht om het echt te hebben die technologie. Het gevoel dat er echt, allee ja. Dat dat nodig is, en als ge het niet hebt dan valt ge daarbuiten, ja (Vrouw, 53, alleenstaand, geen kinderen, werkloos).

Voor deze groep respondenten is het gevoel van uitsluiting, alsook het besef dat ze naar de zijkant van de maatschappij geschoven worden zeer groot. De sociale en innerlijke druk om aan de slag te gaan met digitale technologie is permanent aanwezig. Enerzijds gaan digitale evoluties zo snel dat deze groep moeilijkheden ondervindt om bij te benen. Anderzijds dwingt de toenemende digitalisering van de maatschappij hen net om meer en meer digitale diensten te gebruiken, ongeacht of ze daartoe in staat zijn of niet.

Dit bevestigt de bevindingen van Courtois en Verdegem (2016) en Mariën (2016) over de impact van sociale inbedding op digitale betrokkenheid. Verschillende uitspraken van respondenten in de groep *geen ondersteuning* tonen hoe sociale en digitale factoren een rol spelen in mechanismen van in- en uitsluiting. Respondenten in deze categorie getuigen vaak van een zekere mate van machteloosheid. De uitdagingen waarmee ze op het digitale niveau geconfronteerd worden, verhindert hun mogelijkheden tot sociale participatie. Hiermee worden de bevindingen van Helsper en van Deursen (2016) bevestigd. Diegenen met een hoge nood aan ondersteuning, hebben vaak minder toegang tot kwalitatief hoogstaande ondersteuning. In deze zin vormt digitale sociale ondersteuning een bijkomend niveau van uitsluiting. Sociale en digitale uitsluiting kunnen elkaar versterken. We leggen de nadruk op *kunnen*, omdat we verder zullen zien dat dit niet noodzakelijk altijd het geval is.

4.2 Ondersteuning uit de Gemeenschap

De categorie van de *ondersteuning uit de gemeenschap* verwijst naar die gebruikers wiens bron van ondersteuning voornamelijk bestaat uit computerklassen, computertrainingen georganiseerd door publieke organisaties of middenveldorganisaties. In dit opzicht sluit ze goed aan bij de categorie *formele hulpzoekers* in het werk van van Deursen et al. (2014). In onze studie tonen we echter aan dat voor deze categorie leeftijd een bepalende factor is, meer dan opleidingsniveau. Het gaat vooral om respondenten in de levensfase 51-70 jaar, rekening houdend met zowel gender als opleidingsniveau. Voor deze groep is instrumentele en taakgeoriënteerde ondersteuning belangrijk. Deze categorie vertoont doorgaans een laag niveau van digitale vaardigheden, wat verklaard kan worden door het feit dat voor deze generatie digitale technologie nog steeds *nieuw* is:

Respondent: Zo dus, het is niet altijd gemakkelijk, ik ben 66, ik zeg het, ik vind het voor oude mensen echt een prestatie dat die dat hier komen volgen, dat die nog met de computer willen werken, ik vind dat echt uniek eigenlijk. Want dat moet ge niet onderschatten, op onze leeftijd leer ik hier iets nieuw (Vrouw, 66, in relatie, geen kinderen in huis, gepensioneerd).

Ondanks vaak lage niveaus van digitale vaardigheden kent de groep *ondersteuning uit de gemeenschap* een hoge motivatie om te leren. Deze motivatie is ingegeven door: 1) de angst om op termijn digitaal uitgesloten te worden, of/en 2) een drang om zelfredzamer te worden in het gebruik van digitale technologie. We gaan op beide even dieper in.

De negatieve motivatie van angst wordt duidelijk uit verschillende voorbeelden. Een respondent (60, alleenstaand, geen kinderen, werkloos) zegt gemotiveerd te zijn om computerklassen te volgen wegens zijn precaire socio-economische situatie als oudere werkloze. Deze respondent gaf zijn werk op in de bouwsector wegens fysieke rugklachten. Om zijn kansen op de arbeidsmarkt te vergroten beseft hij dat digitale vaardigheden belangrijk zijn. Een andere respondent geeft aan:

Respondent: Ge komt op een punt dat ge zegt, ge kunt echt niet zonder digitale media, wat, vooral, wat dat er in een, ga naar de GB, daar liggen papieren, of ge hebt uw kaart niet bij, dan moet ge toch via de computer, nu is dat wel aangepast, nu doen ze het, een paar dagen zelf, maar dat hebt ge in de tijd zelf moeten inloggen en doen. Dan denk ik wel, maar dan moet ik er toch wel meer van weten want ge zit daar echt gelijk als, een leek voor, en ge weet niet wel knopje dat ge durft, of kunt duwen. En dat heeft mij wel geholpen ook die lessen hier op de gemeente (Vrouw, 66, in een relatie, geen kinderen in huis, gepensioneerd).

De positieve motivatie om autonoom te worden in het hanteren van digitale technologie zet mensen aan om computerklas te volgen. Vaak deed deze groep voordien een beroep op zijn kinderen als sociale ondersteuning. Ze zijn gemotiveerd om nieuwe vaardigheden te leren om onafhankelijker te worden:

Respondent: Nu ben ik daarvan af, maar in het begin, zo, als ik zo ne veertiger was en zij, ja, vijftien ofzo, ja, toegeven dat ge dat niet kunt, allé, da's wel hard. Ik kannekik hier alles! (...) Bwa, zo erg is 't ook weer niet. Maar, da's toch wel zo, da's echt: "Potverdikke. Ik ben degene die hier alles kon. Tegenwoordig moet ik het aan mijn kind vragen." En dus ben ik dat niet gewoon (Man, 63, in een relatie, kinderen in huis, gepensioneerd).

Zoals werd aangetoond door Kiesler, Zdaniuk, Lundmark, en Kraut (2000) kan de dynamiek van ondersteuning binnen het gezin tot problemen leiden. Zeker wanneer de expertise van de kinderen tot een intellectuele verschuiving binnen de familie leidt. Voor deze categorie van respondenten is het terugwinnen van hun autonomie—binnen het eigen gezin of sociale netwerk—dus een belangrijke motivatie.

Deze groep wijkt af van categorieën zoals gedefinieerd door de klassieke academische literatuur (Courtois & Verdegem, 2016; van Deursen et al., 2014). Het zoeken van hulp is niet enkel ingegeven door een confrontatie met *problemen*. Sociale ondersteuning wordt ook gebruikt om te anticiperen op mogelijke problemen in de toekomst of om een andere lange

termijn doelstelling—autonomie—te verwezenlijken. Nogmaals, de sociale context waarin het individu zich bevindt, is cruciaal in het begrijpen van de onderliggende motivaties om sociale ondersteuning te zoeken.

4.3 Ondersteuning door substitutie

Selwyn, et.al. (2016) bespreken de rol van *proxy users* en hun gebruik van technologie voor derden. We stellen het gebruik van de categorie *ondersteuning door substitutie* voor met een net iets andere invulling. Deze categorie verwijst naar *gebruik door anderen* en bestaat uit een groep van non-gebruikers die weigeren of zelf niet in staat zijn digitale technologie te gebruiken. Terwijl *proxy users* taken uitvoeren voor anderen, gebruiken individuen in de categorie *ondersteuning door substitutie* technologie *door* derden. De agency ligt dus eerder bij de laatste. Individuen in de categorie *ondersteuning door substitutie* hebben toegang tot technologie én gebruiken technologie door *proxy users* te vragen bepaalde handelingen te stellen: een document afdrukken, een email sturen, de belastingen online invullen, etc. Door ons specifiek op deze groep te richten, zijn we in staat de motivaties na te gaan van diegenen die gebruik maken van *proxy users*. De *proxy users* zijn een emotionele steun in tijden van verhoogde stress (bijvoorbeeld bij de gedachte om een digitaal toestel te moeten benutten) en van instrumentele steun of taak-georiënteerde steun. Deze categorie wordt in de literatuur zelden geïdentificeerd of besproken, maar maakt wel een specifieke categorie uit van gebruikers die sociale ondersteuning ontvangen. Dit is verre van een homogene groep. Op basis van het opleidingsniveau onderscheiden we twee groepen: 1) een groep gekenmerkt door lage digitale vaardigheden en een zekere knoppenangst, 2) een groep die nauwelijks gemotiveerd is om digitale technologie te gebruiken.

4.3.1 Ondersteuning door substitutie: Laag niveau van digitale vaardigheden

Deze categorie bestaat uit individuen met een laag tot gemiddeld opleidingsniveau en situeert zich qua leeftijd in de late tweede (40-51) en derde levensfase (51-70). Ze vertrouwen sterk op hun sociale netwerk om digitale technologie te gebruiken:

Respondent: Ik ken mijn (email) adres niet uit mijn hoofd. Nu heb ik het op papier, ik heb het hier met mij. Maar nu weet ik wat de gevolgen zullen zijn als ik het weer verlies. Ik vraag een vriend om vaak met mij mijn mailbox te checken, of vraag hem dit voor mij te doen, een beetje als een opdracht (lacht) en dan checken of er iets is en te sms'en als ik iets heb. Het is beschamend. Ik schaam me om in zo'n situatie te zitten. Het voelt alsof ik analfabeet ben (Man, 49, alleenstaand, geen kinderen, werkloos).

Het gebruik van *proxy users* in deze categorie is vooral ingegeven door angst voor digitale technologie. Deze angst wordt gevoed door een laag zelfvertrouwen, zowel wat hun sociale positie betreft als hun digitale vaardigheden. Vaak hebben respondenten voordien negatieve ervaringen opgelopen met het gebruik van digitale media. Respondenten geven aan dat ze het gevoel hebben *gestraft* te worden omdat ze geen digitale technologie gebruiken.

Net zoals in de categorie van *geen ondersteuning* toont deze categorie het belang van sociale inbedding aan. Meer nog, ondanks sociale ondersteuning toont het aan dat de samenleving

een belangrijke impact heeft op het gebruik en de adoptie van technologie. Het toont aan dat sociale afwijzing van gedrag—sociaal gestraft worden voor niet gebruik—de negatieve percepties van gebruikers van digitale media verder kunnen versterken en hun autonoom gebruik in de weg kunnen staan. De samenleving legt gebruikers sterke verwachtingen op, zonder hen de nodige middelen aan te reiken om aan de verwachtingen te voldoen.

4.3.2 Ondersteuning door substitutie: Lage motivatie

Een tweede vorm van *ondersteuning door substitutie* vindt men vaak in hechte familiale kring, nl. substitutie omwille van lage motivatie. Dit doet zich opvallend voor bij koppels van middelbare tot oudere leeftijd (51-70). Binnen deze gezinnen heeft één partner—in onze studie waren het doorgaans vrouwen—betere vaardigheden dan de andere partner die weigert gebruik te maken van digitale technologie. Respondenten in deze groep komen overeen met wat Ilse Mariën de *digital self-excluded* noemt: individuen met een hoog tot middelhoog opleidingsniveau, een rijk sociaal netwerk, toegang tot technologie, maar die bewust de keuze maakt om zich niet in te laten met digitale media. Vaak wordt een gebrek aan tijd en pensioen als reden opgegeven:

Respondent: (Spreekt over zijn vrouw) Ik heb niets tegen de automatisering, of het feit dat alles nu digitaal gebeurt. Ik weet hoe en wat ik moet doen. Maar zoals ik al zei
Ik ben nu gepensioneerd, eerst op ziekteverlof geweest en dan gepensioneerd.
Ik kan nog steeds een of twee brieven typen met de computer maar ondertussen heb ik een uitstekende secretaresse, (lacht) ik laat het aan haar over. Zij doet voor mij, voorlopig nog, alles wat ik haar vraag" (lacht). (Man, 68, in relatie, geen kinderen in huis, gepensioneerd).

Deze cluster is interessant omdat hij aantoont dat motivatie en sociale perceptie, meer dan socio-economische indicatoren alleen, de patronen van hulp zoeken beïnvloeden. Het toont verder aan dat een gebrek aan motivatie niet uitsluitend verbonden is aan negatieve attitudes (Reisdorf, 2011), maar dat sommige gebruikers het nut van digitale technologie niet inzien (Helsper, 2016). Dit doet de vraag rijzen of we deze gebruikers moeten helpen hun vaardigheden te ontwikkelen of hen moeten motiveren om met technologie om te gaan.

4.4 Ondersteuning uit het netwerk

Ondersteuning uit het netwerk is de meest voorkomende vorm van sociale ondersteuning onder onze 85 respondenten. Respondenten in deze groep hebben doorgaans een gemiddeld tot hoog opleidingsniveau, en komen uit de 2^{de} (31-50 jaar) en 3^{de} (51-70 jaar) levensfase. Ze doen doorgaans een beroep op hulp in hun directe sociale netwerk: thuis bij de partner of/een kinderen, op het werk bij collega's. Een belangrijk concept om dit soort van ondersteuning te begrijpen is het concept van *homofilie* (McPherson, Smith-Lovin & Cook, 2001). Dit concept verwijst naar de idee dat 'contact between similar people occurs at a higher rate than contact between dissimilar people' (McPherson et al., 2001). Mensen gaan dus voornamelijk connecties aan met mensen die gelijkaardige karakteristieken hebben. Of, zoals McPherson et al. (2001) het verwoorden: 'Similarity breeds connection'.

Deze groep heeft veel gemeen met de *socially-supported* van Deursen et al. (2014) en de *domestically-networked* van Courtois en Verdegem (2016) gezien deze groep intensief gebruik maakt van familie en vrienden voor sociale ondersteuning. Wij voegen echter ook sociale ondersteuning door collega's toe aan deze categorie. De gemeenschappelijke noemer is de sociale band tussen beide individuen. Ons onderzoek geeft aan dat gebruikers enkel een beroep doen op collega's als ze deze vertrouwen en als ze deel uitmaken van hun sociale netwerk. Indien de hulp van collega's niet mogelijk is, vertrouwt deze groep op vrienden en familie. In vergelijking met andere categorieën kan deze groep een beroep doen op een aanzienlijk netwerk van familie, vrienden en collega's én is de groep in staat om verschillende vormen van hulp te vragen—informationeel, instrumenteel en emotioneel:

Respondent: Ja, het zoeken voor hulp ... als ik hulp nodig heb met software of iets dergelijks, zal ik het gemakkelijker vragen aan een collega die ik goed ken, zoals 'he! Weet je hoe dit en dat werkt? Maar ja, voor de rest vraag ik het soms aan mijn vriendin, maar ik denk dat dat het is (Man, 48, in een relatie, kinderen in huis, werkend).

Respondent: Oh, meestal vraag ik Natasha of Kristof (collega's) Kristof meestal omdat hij goed is met dit soort dingen en hij weet wat hij moet doen. Dus ik kom bij hen met mijn probleem en ik vraag gewoon 'hé, kun je me helpen een oplossing te vinden hier?' En als laatste poging ga ik naar de IT-helpdesk van de bank, maar ze zijn bijna allemaal extern van de bank, dus ik doe het niet vaak (Vrouw, 57, in een relatie, geen kinderen in huis, werkend).

In lijn met de bevindingen van Courtois en Verdegem (2016) kent de groep van *ondersteuning uit het netwerk* doorgaans een stabiele financiële en professionele positie. Net zoals van Deursen et al. (2014) en Steward (2007) bevestigt ons onderzoek het belang van de werkplek als locus voor sociale ondersteuning. In deze categorie wordt duidelijk dat offline sociaal kapitaal vertaald kan worden naar sociale ondersteuning in het digitale veld. De welgestelden—in termen van sociale, culturele en economische middelen—kunnen een deel van deze middelen omzetten in digitale middelen. Een van bovenstaande respondenten gaf dat duidelijk aan en erkent dat, als gevolg van de kwalitatief hoogstaande ondersteuning door collega's, ze zelf beter en intuïtiever leerde omgaan met digitale technologie. Hoewel deze respondent nog steeds problemen ondervindt met digitale technologie kan ze nu sneller problemen zelf oplossen. Sociale ondersteuning wordt dus zelf een mechanisme van in en uitsluiting (Helsper & van Deursen, 2016). In tegenstelling tot de groep *geen ondersteuning* die geen toegang heeft tot sociale ondersteuning, of de *ondersteuning door substitutie*, die volledig vertrouwt op anderen omwille van een gebrek aan motivatie, is de groep van *ondersteuning uit het netwerk* in staat om zeer specifieke digitale uitdagingen aan te gaan omwille van hun sterke sociale inclusie.

Thuis doet de groep *ondersteuning uit het netwerk* vooral een beroep op kinderen en de partner. In tegenstelling tot de studies van Courtois en Verdegem (2016) of Helsper en van Deursen (2016) toont ons onderzoek aan dat de groep die een beroep doet op kinderen en de partner niet noodzakelijk in een achtergestelde sociale positie zitten. Nog dat ze noodzakelijk over zeer lage niveaus van digitale vaardigheden beschikken. In ons onderzoek zien we dat respondenten in deze groep vaak een gemiddeld tot hoog opleidingsniveau hebben, dat ze in een financieel stabiele situatie zitten en dat ze vaak werk hebben. Ze maken gebruik van hun sociaal netwerk voor zeer specifieke problemen:

Respondent: Nee, ik ga eerst proberen om dat te ontdekken, al doende en een paar keren goed vloeken als het niet lukt, van tijd, en als het te lang duurt, dan, uh (stilte), ga 'k een keer bij mijn kadeeën binnenloeren. maar ja, der is maar ene niet meer thuis. Hij studeert aan de VUB. Het laatste jaar, ja. Bio-ingenieur, ja. En, allé, ja als hem thuis is, dan, dan heeft hem ervan. En is den andere toevallig thuis, dan heeft die er van (Man, 66, weduwnaar, kinderen in huis, gepensioneerd).

Respondent: Mijn man betaalde al onze rekeningen en toen hij stierf, bleef ik bijna een jaar lang naar de bank om mijn bankoverschrijvingen te doen. Iedereen vertelde me altijd hoe gemakkelijk het was om alles online te doen, maar niemand liet het me zien. En op een dag kwam mijn dochter thuis en ze zat een uur bij me en liet me zien hoe ik het moest doen. Nu voel ik me bijna stom als ik bedenk hoeveel moeite ik daarvoor had (Vrouw, 68, weduwe, geen kinderen in huis, gepensioneerd).

In ons onderzoek bevestigt de groep *ondersteuning uit het netwerk* verschillende studies (Bakardjieva, 2005; Chu, 2010; Correa, Straubhaar, Chen & Spence, 2013) die het belang van de familie als bron van sociale ondersteuning, alsook de rol van intergenerationale uitwisseling van kennis, benadrukken (Dolničar, Hrast, Vehovar & Petrovčič, 2013). Wel rijzen vragen over de duurzaamheid van dit soort van sociale ondersteuning. Sommige respondenten geven aan dat leren in een familiale context frustrerend kan zijn. Familieleden—vaak kinderen—zijn niet steeds gemotiveerd en hebben niet altijd de nodige tijd. Deze frustratie leidt vaak tot een behoefte bij de respondenten om zelfstandiger te worden in het gebruik van technologie én om minder afhankelijk te worden van de hulp van de kinderen. In dit opzicht zien we dat de groep *ondersteuning uit het netwerk* die vooral beroep doet op familie, vaak overgaat tot *ondersteuning uit de gemeenschap*:

Interviewer: Kunt u een specifiek voorbeeld geven waarin uw dochter niet wil helpen?

Respondent: Laten we zeggen dat er iets gebeurt. Er verschijnt iets op de onderkant van mijn computer of mijn mailboxen. Ik ben altijd bang om het te openen omdat ik niet weet wat er kan gebeuren als ik erop klik. Mijn dochter zegt me gewoon 'Als je het niet weet, raak het niet aan' maar ... ik wil niet meer afhankelijk zijn. Dat is de reden waarom ik met mijn computer naar het EPN [openbaar computercentrum] ga om vragen te stellen (Man, 46, in een relatie, kinderen in huis, werkend).

4.5 Navolgende Leerder

De *navolgende leerder* is voornamelijk te vinden in de 1^{ste} levensfase (18-30 jaar) en in het begin van de 2^{de} levensfase (31-50 jaar). Ze zijn voornamelijk gemiddeld tot hoogopgeleid. De *navolgende leerders* delen een aantal karakteristieken met de groep *ondersteuning uit het netwerk* omdat ze intensief gebruik maken van hun hecht sociaal netwerk in hun gebruik van digitale technologie. Ze onderscheiden zich echter van andere categorieën in die zin dat ze vertrouwen opbouwen door het gebruik van familie en vrienden te volgen alvorens zelf over te gaan tot het gebruik van een technologie. In tegenstelling tot de groep *ondersteuning door substitutie*, die anderen in hun plaats technologie laten gebruiken, leert deze groep door anderen te volgen. Sociale ondersteuning voor de *navolgende leerder* neemt dus doorgaans

de vorm van informationele ondersteuning aan. Hechte sociale netwerken vormen hier 'lokale instituties' of 'lokale experten' wiens opinie en informatie sterk gewaardeerd worden:

Respondent: Mijn mama werkt bij Belfius, en eerst dacht ik van, ja maar ja, allee zo een app op uw gsm met uw bankgegevens, ik weet dat toch niet, want voor hetzelfde geld als iemand dan uw gsm pikt of u hackt, ja, dan kan die daaraan, maar dan zei mijn mama ook: neen neen dat is heel veilig en ge moet dat en dat doen. Dus eigenlijk heb ik altijd schrik om iets voor te hebben met mijn gsm, en is er iemand dat mij kan overtuigen dat het niet waar is, en dan doe ik dat. En dan lukt dat wel (Vrouw, 25, in een relatie, geen kinderen, werkend).

Respondent: Dus ja, ik heb hier geen specifieke interesse voor. Ik bedoel, ik ga geen app downloaden van, gewoon om te zien hoe het werkt, nee, nee. Als ik bijvoorbeeld van vrienden hoor zeggen, oh ... dat, hé nu de Payconiq-app ook booms, is dat meestal hoe het gebeurt, dus als ik van vrienden hoor 'oh, J. is de app echt top!', ja, dan zou ik dat waarschijnlijk op lange termijn proberen, ja. Maar dingen op zich testen zit niet in mij (Man, 33, alleenstaand, kinderen in huis, werkloos).

Eens de *navolgende leerder* overtuigd is van het nut van een digitale applicatie, gaat hij zelf, via *trail and error* op ontdekkingstocht. Deze groep is een belangrijke basis voor sociale ondersteuning voor gebruikers met minder vaardigheden. De groep is vaak de bron van hulp aan de groep *ondersteuning uit het netwerk*. Een belangrijke vraag is of de aanpak van het *leren door te doen* wel altijd tot de beste resultaten leidt. Zoals reeds opgemerkt door van Deursen en van Dijk (2010) kan de *leren door te doen* strategie ook leiden tot het aanleren van een verkeerde aanpak die steeds weer herhaald wordt en mogelijk ook doorgegeven wordt in het sociale netwerk.

4.6 Zelfredzame Leerder

De *zelfredzame leerder* is het meest zeldzame type gebruiker. Deze groep kan vergeleken worden met wat van Deursen et al. (2014) de *independents* heeft genoemd en wat Courtois & Verdegem aanduiden als *self-reliant*. Deze groep vraagt geen hulp, hoewel ze vaak over de sociale netwerken beschikken. Deze groep leert op een intuïtieve manier, heeft een hoog niveau van digitale vaardigheden en is quasi digitaal zelfredzaam. Deze groep van gebruikers is doorgaans mannelijk, hoogopgeleid, tussen 25 en 45 jaar en werkt vaak met digitale technologie. Ze beschikken doorgaans over kwalitatief hoogstaande apparatuur en toegang. Deze groep is bereid om nieuwe zaken te leren en is zelfverzekerd over zijn eigen vaardigheden. Ook deze groep leert door het experimenteren met technologie en toepassingen, maar in tegenstelling tot de *navolgende leerder* wachten ze niet op het voorbeeld van anderen om met nieuwe technologie te experimenteren.

Respondent: Ik zal gemakkelijk iets uitproberen als het nieuw is of als ik iets van vrienden hoor, of ik zie iemand ermee en dat lijkt me gaaf. Soms test ik ook of dat bij mij past, en of het past bij mijn manier van werken (Man, 35, in een relatie, kinderen thuis, tewerkgesteld).

Respondent: Photoshop is bijvoorbeeld iets wat ik leuk vind, het is een hobby die ik jaren geleden zelf heb geleerd. En er zijn altijd nieuwe versies en als ik iets met Photoshop moet maken, is het soms waar, ik weet niet waar ik moet beginnen, dus ik ga gewoon

door *tutorials* op YouTube. Hetzelfde voor mijn muzieksoftware: ik kan naar de website van de software gaan of op forums kijken wat andere gebruikers zeggen, maar ... ja, ik zie niet de noodzaak om het aan anderen te vragen omdat ik weet hoe ik dingen zelf moet uitzoeken (Man, 44, in een relatie, kinderen thuis, tewerkgesteld).

De *zelfredzame leerder* vormt een belangrijke bron van sociale ondersteuning voor zijn eigen sociaal netwerk. Ze vormen de basis van ondersteuning voor zowel de groep *ondersteuning uit het netwerk* als de *navolgende leerder*. Zij zijn vaak de helpende collega, de digitale expert die ter plaatse ondersteuning aanbiedt, de kinderen die ouders ondersteunen, etc.:

Interviewer: Zijn er momenten waarop je anderen helpt?

Respondent: Maar ja, zeker mijn grootouders: ze helpen met hun computer, dingen printen op één pagina in plaats van twee, helpen met e-mails, dingen downloaden en ze helpen vinden wat ze hebben gedownload, dropbox installeren op hun computers en uitleggen hoe het werkt. Ja, eigenlijk veel helpen in de familie met echte concrete dingen (Man, 25, inwonend bij ouders, geen kinderen, werkend).

Het concept van *homofilie* speelt terug een belangrijke rol, waarbij kwalitatieve sociale ondersteuning gegeven wordt in zeer homogene sociale netwerken. Zoals aangetoond door Yuan en Gay (2006) speelt *homofilie* een belangrijke rol in het creëren van lerende gemeenschappen. De groep van *zelfredzame leerders* vormt een *gatekeeper* in de distributie van kennis, omdat deze groep vooral de familie en vrienden in hun eigen netwerken zullen bijstaan. Beleid moet dus oplossingen zoeken om diegenen die geen toegang hebben tot dit soort van sociale ondersteuning alternatieve vormen van ondersteuning aan te bieden. De idee van *buddy* netwerken sluit hierbij aan.

5 Discussie en beleidsimplicaties

Het is intussen duidelijk dat digitale inclusie niet beperkt is tot *toegang*—het beschikken over technologie—en zelfs niet tot verschillen in *vaardigheden*—de kennis en praktische vaardigheden om technologie te gebruiken. Ons onderzoek toont aan dat formele en informele vormen van *sociale ondersteuning* een belangrijke rol spelen in het verhogen of bemoeilijken van *toegang* en *gebruik* van digitale technologie. In sectie 5.1 trekken we een aantal conclusies met betrekking tot sociale ondersteuning, leren en het verwerven van digitale vaardigheden. In sectie 5.2 reflecteren we over de Covid-19 crisis en de impact op sociale ondersteuning. Tot slot bekijken we in sectie 5.3 enkele beleidsimplicaties. Daarin stellen we dat we moeten afstappen van de idee dat digitale geletterdheid een louter individuele verantwoordelijkheid is.

5.1 Sociale ondersteuning, leren en het verwerven van digitale vaardigheden

De snelle technologische veranderingen die permanent alle terreinen van de samenleving veranderen, dwingen gebruikers om permanent bij te leren en hun vaardigheden bij te werken tegen een almaar sneller tempo. De rol van sociale ondersteuning voor digitale inclusie wordt duidelijk op verschillende manieren:

- Ondersteuningsnetwerken worden niet enkel aangesproken in tijden van verhoogde stress of wanneer gebruikers met problemen kampen. Zoals duidelijk werd in de groep *ondersteund uit de gemeenschap* maken gebruikers soms proactief gebruik van sociale netwerken. Sommige gebruikers zijn er zich terdege van bewust dat bepaalde transities of verandering van levensfase hun digitale inclusie kan bedreigen op de lange termijn (vb. om een nieuwe job te vinden als men beperkte digitale vaardigheden heeft). Om mogelijke uitsluiting te vermijden, gaat een deel van de respondenten zeer vroeg op zoek naar opportuniteten in het sociale netwerk om vaardigheden te versterken.
- Het vragen van sociale ondersteuning is niet beperkt tot gebruikers met beperkte digitale vaardigheden. Zoals duidelijk aangetoond, doen individuen uit de groepen *ondersteuning uit het netwerk, navolgende leerder*, en soms zelfs de *zelfredzame leerder*, een beroep op ondersteuning voor specifieke problemen. Op basis van het probleem zoeken ze specifieke personen in hun sociale netwerk om een probleem op te lossen, om dan hun leerproces of activiteit zelfstandig verder te zetten.
- Formele en informele vormen van leren én formele en informele vormen van sociale ondersteuning worden vaak op een complexe manier door elkaar heen gebruikt. In ons onderzoek hebben we minder aandacht besteed aan de verschillende componenten van sociale ondersteuning, nl. emotionele, instrumentele en informationele vormen van ondersteuning. Uit de quotes van respondenten blijkt echter dat emotionele ondersteuning een belangrijk aspect vormt van steun, ook met betrekking tot digitale inclusie.

Uit onze analyse blijkt dat gebruikers over heel wat *agency* beschikking met betrekking tot sociale ondersteuning. Ten eerste, kiezen ze vaak zelf het meest geschikte moment waarop ze deze netwerken aanspreken. Ten tweede, zijn sommige respondenten zich zeer bewust van de mogelijke gevolgen van het gebruik van sociale ondersteuning—bijvoorbeeld betere vaardigheden verwerven om beter werk te vinden. De beoogde doelstellingen van gebruikers zouden nog beter in kaart moeten worden gebracht in onderzoek. Dit zou de onderzoeksagenda doen verschuiven van een focus op socio-demografische factoren naar een beter begrip van de voordelen die gebruikers halen door het gebruik van sociale ondersteuning.

5.2 Covid-19 en digitale sociale ondersteuning

De Covid-19 crisis heeft pijnlijk duidelijk gemaakt dat digitale inclusie een belangrijk probleem blijft in Vlaanderen. De lockdown en de snelle shift naar digitale vormen van onderwijs, naar een digitale werkomgeving en naar digitale vormen van sociale interactie, verplaatsten grote lagen van de bevolking om quasi volledig digitaal te gaan. Hoewel hierover voorlopig weinig onderzoek is uitgevoerd, kunnen we nu reeds een aantal vaststellingen doen:

- In het onderwijs bleek een deel van de gezinnen over geen of onvoldoende toestellen—of kwalitatief onvoldoende toestellen—to beschikken om online lessen en online opdrachten te volgen;
- Zelfs gezinnen met één of een beperkt aantal toestellen komen in de problemen wanneer meerdere personen gelijktijdig synchroon lessen, vergaderingen, sociale activiteiten moeten combineren;

- We moeten voorzichtig zijn met definities zoals ‘toestel met een internetverbinding’. Een smartphone of een tablet zijn leuk om te surfen, films te bekijken, spelletjes te spelen, kranten te lezen en te communiceren via sociale media. Ze lijken minder geschikt om opdrachten te schrijven, huiswerk te maken of in een professionele werkomgeving; dit wordt ook bevestigd door organisaties die werken rond inburgeraars (Gevaert, 2020);
- Heel wat zwakkere groepen zoals jongeren in residentiële jeugdhulp, patiënten in psychiatrische instellingen, bewoners van woonzorgcentra, asielzoekers in asielcentra, anderstaligen in taalonderwijs, nieuwkomers die een inburgeringstraject volgen, etc. bleken tijdens de lockdown in situaties te belanden waarbij de bestaande infrastructuur en toegang in grote mate ontoereikend bleek;
- Een deel van de opleidingen rond digitale vaardigheden zijn noodgedwongen overgestapt op online lessen. Vooral mensen met een laag niveau van digitale vaardigheden hebben moeilijkheden om van het online aanbod gebruik te maken.

Uit ons onderzoek werd duidelijk dat mensen met beperkte digitale vaardigheden afhankelijk zijn van digitale sociale ondersteuning. Ook hier heeft de lockdown een impact gehad. Hoewel onderzoek noodzakelijk is, wagen we ons op basis van onze ervaring in de Taskforce e-Inclusie¹ aan een aantal observaties en hypotheses voor verder onderzoek. Ten eerste, werden alle openbare computerlokalen in jeugd- en buurthuizen, bij armoedeverenigingen, in bibliotheken, etc. gesloten. Afgezien van de toegang op zich viel hiermee ook de ondersteuning weg die mensen daar doorgaans krijgen. Het wegvalLEN van deze vorm van ondersteuning treft vooral de gebruikers die hun *ondersteuning uit de gemeenschap* halen. Ten tweede, vielen in grote mate de informele ondersteuningsnetwerken weg van familie, vrienden en collega's. Vaak zowel in een thuis- als werkcontext. Dit trof waarschijnlijk vooral de groep *ondersteuning uit netwerken*. Zeker voor die vormen van ondersteuning waarbij fysiek contact nodig is. Kleine problemen kunnen soms via telefoon worden opgelost. Complexere problemen zijn moeilijker van op afstand te regelen. Ten derde, is waarschijnlijk ook een deel van de groep *ondersteuning door substitutie* in de problemen geraakt. Vaak gebeurt het afhandelen van digitale activiteiten voor iemand anders namelijk fysiek op het toestel van de hulpzoekende. De lockdown heeft aangetoond dat veel vormen van sociale ondersteuning fysieke nabijheid vereisen. Dat hoeft niet negatief te zijn. In tegendeel, uit de werking van openbare computerlokalen weten we dat het sociale contact een belangrijk deel van de hulpbehoefte is. Bovendien vormt fysiek contact een belangrijk element in het leerproces. In tijden van lockdown en social distancing wordt hulp ter plaatse echter een stuk moeilijker.

In de post-lockdown periode bouwen we vooreerst nieuwe vormen van met elkaar omgaan op. Hoe lang de periode van *het nieuwe normaal* gaat duren, weten we niet. Ook de

¹ Tijdens de Covid-19 crisis werd op initiatief van auteurs, Ilse Mariën en Leo Van Audenhove, de Taskforce e-Inclusie opgericht. De Taskforce is een samenwerkingsverband van lokale besturen, publieke instellingen en middenveldorganisaties die al jarenlang werken aan het digitaal insluiten van kwetsbare groepen. Covid-19 heeft de problematiek van digitale inclusie sterk op de maatschappelijke en politieke agenda geplaatst. Dat is goed en noodzakelijk. Het risico is echter dat initiatieven, inspanningen én beleid op een ongecoördineerde manier verlopen. De idee achter de Taskforce is om op basis van de bestaande capaciteit en kennis acties te stimuleren en initiatieven te coördineren. Daarnaast wenst de Taskforce een brugfunctie te spelen tussen politiek en het brede veld van e-inclusie actoren. Door initiatieven actief te monitoren en goede praktijken te delen, verzekert het een grotere impact www.e-inclusie.be

verschillende vormen van sociale ondersteuning komen weer op gang. De openbare computerlokalen nemen maatregelen om hun deuren veilig te openen met de gebruikelijke 1.5 meter afstandsregel, gels en doekjes bij de hand. Vrienden en familie komen weer vaker over de vloer. 1.5 meter afstand houden bij vastgelopen computers vormt hier al een groter probleem. Sociale ondersteuning op afstand—online, video, telefoon, het remote overnemen van computerscherm en -functies—moet verder onderzocht worden als alternatief en aanvulling op ondersteuning ter plaatse.

5.3 Beleid en individuele verantwoordelijkheid

Ons onderzoek bevestigt dat we in e-inclusiebeleid en -initiatieven moeten afstappen van de idee dat digitale inclusie een louter individuele verantwoordelijkheid is (Mariën, Heyman, Salemink, & Van Audenhove, in druk). Zoals aangehaald, beschikt de groep met sterke toegang tot sociale ondersteuning én die hier actief gebruik van maakt voor hun eigen individuele belangen, doorgaans over sterke sociale netwerken. In tegenstelling tot kwantitatief onderzoek (Courtois & Verdegem, 2016; van Deursen et al., 2014), toont ons onderzoek aan dat opleidingsniveau geen alles verklarende factor is. Enerzijds vertonen sommige respondenten met een laag opleidingsniveau een hoge mate van interesse en motivatie om te leren omgaan met digitale technologie. Dit wordt omgezet in het actief volgen van bij voorbeeld computerklassen, of het versterken van vaardigheden door *trial and error*. Anderzijds zijn er respondenten met een hoog opleidingsniveau die grotendeels aangewezen zijn op *ondersteuning door substitutie* in hun gebruik van digitale technologie. Belangrijk is dat toegang tot sociale netwerken niet *enkel* afhangt van socio-economische en socio-culturele factoren. De sterkte van relaties tussen individuen in sociale netwerken is een stuk complexer. Hier is zeker meer onderzoek nodig. Bovendien is het belangrijk dat e-inclusie strategieën rekening houden met sociale netwerken, sociale interactie en sociale ondersteuning. E-Inclusie strategieën moeten inspelen op en rekening houden met sociale interactie in computerklassen, op de werkvloer en in de lokale netwerken.

5.4 De Taskforce e-Inclusie

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A situated approach to digital exclusion based on life courses

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Abstract: This article proposes a situational reading of digital exclusion. This is developed using an analytical approach based on life courses. The perspective is to analyse digital exclusion risks around the transitions and ruptures that shape the life courses. The research examines multiple stages within educational, professional and private trajectories and explores the uses of technology in these situations. It analyses the diversity of use in relation to the situations in which they take place and according to their significance at different points in life. Recognising the heterogeneity of courses and of individual experience, this approach allows us to work out the characteristics of digital uses and the potential risks of exclusion to which the individual is exposed.

Keywords: Digital uses, Digital exclusion, Life course perspective, Digital autonomy, Situated approach

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INTRODUCTION

Having access to digital tools (smartphones, computers, tablets, internet, applications, platforms etc.) as well as the skills necessary to use them is now considered prerequisite for individuals to participate fully in society. The use of these technologies create opportunities to reinforce social, economic and cultural capital, as understood in the sense defined by Bourdieu (Ragnedda, 2018), and does so throughout our lives (Van Deursen & Van Dijk, 2014, p. 509). Much research has shown that individuals who have not had access to digital technologies, or who weren't able to use them and benefit from them in their life offline, often belong to disadvantaged social groups or older generations (DiMaggio & Hargittai, 2001; Fleming, Mason, & Paxton, 2018; Van Deursen & Helsper, 2015; Yates, Kirby, & Lockley, 2015a). However, while significant efforts have been made to improve access to digital tools and the development of the necessary skills, some individuals, or groups of individuals, are still at a disadvantage because of their non-use of these tools, which are interwoven in a growing range of situations across education, professional and personal life (Van Deursen & Helsper, 2015).

The consistency and the evolution of these trends in digital exclusion encourage us to go beyond dichotomous approaches to exclusion, between the 'haves' and the 'have nots' (Tsatsou, 2011), to better 'take into account the social economic and cultural contexts of digital engagements' (Robinson et al., 2015, p. 570). This turning point in the research sheds light on the multiple dimensions of digital exclusion and their dynamic nature (Helsper, 2012; Wei & Hindman, 2011) as well as the necessity of adopting a situated point of view to understand the interaction between individual and contextual factors which generate these situations of disadvantage, and indeed for some the phenomenon of marginalisation (Bezuidenhout, Leonelli, Kelly, & Rappert, 2017; DiMaggio & Hargittai, 2001; Ragnedda, 2018; Wei & Hindman, 2011). In line with this perspective, this article proposes a situational reading of digital exclusion. This is developed using an analytical approach based on life courses.

Life courses refer to individual experience, situated within a sequence of institutionalised events which take place in the lives of individuals and which play a part in the direction of individual trajectories (Elder, 1994; Giele & Elder, 1998; Hendricks, 2012; Mayer, 2009). Life courses are marked by situations where the option of choosing to employ technology or not is being reduced. Whether in studying, in administrative procedures, finding a job or even a place to live, the use of digital technology is becoming more and more dominant (Selwyn & Facer, 2007), and indeed is sometimes imposed 'by default' (Yates, Kirby, & Lockley, 2015b). This evolution of the norms of use has implications on life's unfolding. An individual's needs are linked to the situations with which they are confronted: it is thus necessary to give thought to the evolution of 'the infrastructural, social, institutional, cultural, material and educational elements necessary to ensure the realization' of these needs (Bezuidenhout, Leonelli, Kelly, & Rappert, 2017, p. 465). But this social context is also transformed by the spread of use (DiMaggio & Hargittai, 2001). Therefore, it is a question of documenting the way in which life courses are influenced by the normalisation of uses in a particular social context (Bezuidenhout, Leonelli, Kelly, & Rappert, 2017, p. 466).

The research presented here looks to understand to what extent situations where digital exclusion is a risk are structured around particular life transitions; such as the birth of a child, the death of a close relation, finding a partner, starting a job, and geographical mobility. In addition to these transitions are biographical ruptures: divorce, sickness, unemployment etc. Our research examines multiple stages within educational, professional and private trajectories

and explores the uses of technology in these situations, in particular when such challenges reduce the possibility of individual choice in the use of technology. The underlying hypothesis is that the use of digital tools is characterised by an accrued homogenisation of norms of interaction in certain situations. This homogenisation entails a reduction of the possibilities of individual choice and life chances (Ragnedda, 2017). The effects of this phenomenon on life courses will be more marked when these courses also intersect with the experience of social inequality (Robinson et al., 2015). Drawing on the thinking around the notion of digital choice and autonomy, our analysis offers a view of digital exclusion not simply as the result of a lack of individual skills, but also as the product of a lack of digital autonomy. This latter notion is understood as the choice or room for manoeuvre when faced with prescribed uses in a particular situation.

After returning to several key ideas which form the basis of the definition of digital exclusion, and an explanation of our empirical process, the presentation of our results will be structured in three parts. Firstly, an analysis of the uses of digital technology according to biographical courses will allow us to highlight the specificity of use in three life domains: education, employment and personal life. Next, identifying the situations with which individuals are likely to be confronted within these three domains, our analysis will offer an interpretation of the difficulties according to the demands of digital use in each situation. It will also look at how this situation intersects with an individual trajectory and room for manoeuvre in face of the norms of use in these situations. Finally, we will discuss the bearing of these results in relation to the outlook on digital exclusion.

CONTEXTUALISATION OF DIGITAL EXCLUSION AND AUTONOMY

There is much work describing digital exclusion risks for individuals who, according to their social-economic status, their age or their level of digital skills, would *a priori* be considered as not affected (Brotcorne, Damhuis, Laurent, Valenduc, & Vendramin, 2011; Deydier, 2018; Helsper, 2017; Schurmans & Mariën, 2013; Selwyn & Facer, 2007). This is the case, for example, with young adults who are seen as a very digital-literate group (Bennett, Maton, & Kervin, 2008; Yates, Kirby, & Lockley, 2015a) but whose patterns of use are nonetheless very different (Hargittai & Hinnant, 2008). This research calls into question the diversity of use in relation to the situations in which they take place and according to their significance at different points in life as [...] variations in use with age will reflect aspects of life style, life stage and inequalities that vary with age – not just experience with ICT' (Yates, Kirby, & Lockley, 2015, p. 2). It is in this sense that Helsper (2017) foregrounds the importance of taking into account the social relativity of digital inequality in her research on digital exclusion. This perspective involves an understanding of the individual characteristics that are often used to explain digital inequalities (including access, skills and motivations) within their social contexts and specific temporalities (Helsper, 2017, p. 223). This analytical framework does not only aim to describe the context of digital uses but also to take into consideration the effects of its omnipresence and its societal valorisation on the possibilities of the choice of use or of non-use by individuals (Helsper, 2017, pp. 237-238).

Consequently, digital exclusion cannot be reduced to the influence of individual and social factors in isolation of one another. These factors interact and form a set of constraints leading to 'the inability for an individual to make empowered and informed choice about their use or non-

use of ICT-based practices' (Selwyn & Facer, 2007, p. 19). The proliferation of use of digital tools in the day-to-day seems to model contexts in which it appears ever more complex to escape using these tools, to interact with peers or to benefit from public or private services. The definition of digital exclusion as employed here is tied up with choice, this latter being a part of life courses (Santelli, 2019). This perspective revokes the notion of autonomy, foregrounded as a necessary skill for digital inclusion (see the European Commission's DigComp 2.1). However, autonomy is also dependent on the social conditions within which it is perceived (Marquis, 2010, p. 75). Freedom of choice seems to be a condition that fulfils autonomy. Digital choice also refers to the choice of individuals who, for personal reasons – shaped by their social and cultural origins – distance themselves from digital uses (Dutton, Helsper & Gerber, 2009; Helsper, 2011; Mariën & Prodnik, 2014).

However, digital choice is not similar to autonomy. The notion of choice must exist within a larger context that doesn't always allow for choices to truly be made without constraints. Sometimes the individual doesn't have the option of disconnecting from technology: in the workplace, for example (Felio, 2015). On the contrary, the choice to disconnect voluntarily is envisaged as though it does not have any negative effects on daily life (Vodoz, 2010). For example, the decision not to use social media is evaluated in relation to the ability to contact friends or family by other means. In addition, using individual choice as an explanation for disconnecting from, or not using, technology could also be a strategy to conceal a lack of skills and/or access (Vodoz, 2010). To summarise, the idea of 'choice' is not simple, as it refers to a multiplicity of realities and takes place in a context that does not allow for pure free choice (Helsper, 2011). A second pitfall is confusing autonomy with independence, as defined as a form of freedom to act in an aware and informed manner, according to a rational choice orientated to individual benefits. This view is opposed to that of the autonomous individual and the social world in which this autonomy is exercised. 'As a result [...] autonomy must not be understood as an acquisition of independence (where the individual is presented against the social), but as a particular relation to the Other and to institutions' (Marquis, 2010, p. 78).

Applying the life course perspective to the question of digital exclusion allows us to contextualise choice and autonomy. Within this framework, we intend to look at digital exclusion as a position of limited autonomy in digital society. This experience of autonomy varies depending on life stages and results in interaction between existing inequalities and the constraints exercised by the prevailing digital norms. Work on social exclusion led by Serge Paugam (1996, 1997, 2011) provides an interesting perspective on the fundamentals of this approach. According to Paugam, in a given society, excluded individuals are those who do not manage to conform to the social norms and who need constant assistance from institutions and from others so as not to become marginalised. In this sense, Paugam doesn't define autonomy as an attribute or individual skill, but as a particular social relationship which allows every individual to access and take advantage of the resources made available by society (Lecompte, 2010; Mercklé, 2011). In research and policy around digital inclusion, autonomy is frequently defined as an individual's ability to learn and to reach objectives by themselves (Dickinson, 1995; Marquis, 2010; Carretero, Vuorikari, & Punie, 2017). In this article digital autonomy is envisaged as room for manoeuvre faced with digital uses. In concrete terms, a poor degree of digital autonomy refers to a position where there will be higher constraints of digital uses and where coping strategies will be difficult to put in action without the risk of becoming disadvantaged.

A METHODOLOGY INSPIRED BY LIFE COURSES

Our methodology is inspired by the approach of life courses in social sciences (Elder, 1994; Giele & Elder, 1998; Hendricks, 2012; Mayer, 2009; Van de Velde, 2015), which predicates that life's unfolding is a specific experience for each of us (Giele & Elder, 1998, p. 22), and which aims to understand the mechanisms that will influence this experience (Hendricks, 2012; Santelli, 2019). These events – or life stages – reflect similar life transitions, such as taking your first job, moving in with a partner, and retirement. This perspective also insists on the singularity of individual courses and is interested in life's discontinuities, such as divorce, dropping out of school and unemployment (Van de Velde, 2015). The life course perspective thus studies the scope of historical, social and personal factors which play a part in the change that takes place within a human's life (Hendricks, 2012, pp. 229-230). It will also take an interest in the link between age and the world views of an era, in the normative and temporal dimensions of the social structures which organise individual courses, and in the point in life at which the individual is situated.

Recognising the heterogeneity of courses and of individual experience, this approach allows us to work out the convergences and the divergences in digital uses and the potential risks of exclusion to which the individual is exposed (Elder, 1994; Mayer, 2009, Robinson et al., 2015) crossing the transitions linked to institutionalised stages of life courses. These latter are considered to be common to the majority of individuals from the same cohort or age group (Brotcorne, 2017, p. 14). The goal is to draw attention to the place of digital tools through an individual's lived experience and to '[...] consider what roles they play in explaining why we have diverse experiences as we grow up and grow old' (Hendricks, 2012, p. 226).

THE COLLECTION OF LIFE PRACTISE ACCOUNTS

Our empirical data is based on 85 semi-structured interviews conducted in Belgium as part of the research programme IDEALiC funded by the Belgian Federal Science Policy Office and co-led by a team of researchers from Université catholique de Louvain and Vrije Universiteit Brussel, between 2015 and 2019. The aim of these interviews was to collect life practice narratives (Bertaux, 2001) from users who had different degrees of familiarity with digital technology, across three age groups. The demarcation of these age groups reflects the standard frequently employed by European social policies (Mayer, 2009). The young adult category (18-30 years old) corresponds with a period during which individuals are expected to build their autonomy in all fields of their life, while the adult group (30-50 years old) indicates individuals who are in a period during which they are presumed to have developed their autonomy and be participating fully in society, while maintaining a balance between private and professional spheres. Senior citizens (50-70 years old) are characterised by their progressive departure from professional life and their growing concern with remaining independent and participating in society.

Although this classification has been relevant to draw attention to largely common circumstances and the extent to which they interweave with digital tools, they should be approached with some caution for at least two reasons. Firstly, the transitions between life stages do not necessarily align with age. For example, some people enter professional life earlier, others later, some take time off from their jobs to go back to studies. Age and life stages are two

fields that are interconnected but nonetheless distinct. Secondly, the idea of age is polysemic (Rennes, 2019) and refers to numerous realities. If individuals are differentiated according to a ‘chronological’ age, based on their date of birth, then this age also has social significance. Thus, each age is associated with a normativity which, beyond its chronological reference, is also the manifestation of unequal social relations whereby some ages are given more social value than others (Rennes, 2019), in addition to the ‘prescriptions and expectations for how we think and how we behave’ (Hendricks, 2012, p. 227). For these reasons, it seems appropriate to include this subjective component relative to age groups by looking into the role of age in the significance given to the use of digital tools. This both allows us to identify diverse approaches to choice in terms of digital use and to identify whether these approaches were principally experienced in particular situations – transitions and ruptures – that occur during a life course. The distribution across these three age groups allows us to address the relationship to technology at the certain specific life course stages that are generally associated with this group, with an understanding of the influences of age status as a ‘socially constructed concept grounded in particular circumstances that [connect] actors to the social capital at their disposal, roles and opportunities open to them, how they experience life, and how they are perceived by others’ (Hendricks, 2012, p. 227).

Our data collection did not look for statistical representativeness; the aim was rather to distribute participants equally according to age, gender and level of education, so as to highlight the diversity of trajectories and to better understand the similarities and differences in the uses of and relations to digital technology for individuals within one age group. Attitude towards digital technology (familiarity and regularity of use), as well as professional occupation were two further variables taken into account when selecting the sample of interviewees. The interviews were devised as life practice narratives (Bertaux, 2001). This did not mean a simple and linear reproduction of a whole life course. It was rather a case of taking a retrospective approach to understand the ‘life fragments’ which, in the eyes of the interviewee, had taken a particularly important significance in their individual trajectory (Pourtois, Desmet, & Lahaye, 2010), across various domains such as personal life, formal education, professional, social life, leisure and culture or civic life. Using these accounts, the place of digital technology was addressed within the sequence of these life stages. The accounts allow us to understand individuals’ views on their practices and experience, as well as on the underlying systems, norms and values of these practices (Bertaux, 2001).

Particular attention has been given to the importance of digital technology in past transitions and ruptures to understand how and to what extent they are embedded in these situations (Van Deursen & Helsper, 2015): have their consequences been seen as positive, negative or ambivalent? Are the results tangible (for example, the loss of social advantages) or are they also subjective (for example, a loss of self-confidence, or confidence in digital technology)? In such situations, what difficulties were actually faced? Are these the same from one individual to the next? Why and how have some people been able to overcome them while others have not? What makes these situations reoccur? The qualitative analysis was executed using NVivo software, based on a thematic table. This led to the development of a typology of situations with a risk of digital exclusion, based on room for manoeuvre in digital technology use, expectations concerning use, and coping strategies.

HETEROGENEOUS LIFE COURSES BUT COMMON RISKS OF DIGITAL EXCLUSION

To understand the implication of digital technology in life courses, and to characterise the potential risks of digital exclusion, the first step of our analysis consisted of showing the points where digital use takes place in the trajectories. To do this, the thematic table picked up the following life stages: birth, death, leaving the nest, love life, retirement and work, as well as the ruptures of divorce, dropping out from studies, sickness, immigration, geographical mobility, career changes and unemployment. An ‘other’ category was included for unexpected experiences. The analysis shows that the interviewee’s narratives relative to their digital practices are primarily constructed around the same key life events, whatever their age group. These key events encompassed the professional, educational and personal spheres. Interviewees also described their uses in other domains – their social life, cultural life and civic life – but these were less seen as having a significant influence on their trajectories. In the direction of life courses, the importance of digital technology use in socio-cultural spheres thus remains a blind spot in our research.

At the heart of the professional, educational and personal domains, a similar series of stages took place in different life unfoldings. The same event might in turn be seen as positive, negative, neutral or ambivalent, depending on the context within which it takes place; subsequently, the description of a typical life course trajectory is not self-evident. To illustrate the non-linear character of the trajectories without assuming their subjective perception, the different courses described by the interviewees have been organised according to a typology based on the degree of continuity in the trajectories (table 1).

Table 1: Overview of the life trajectories in the educational, professional and private spheres.

Spheres	Characteristics	Description
Educational	Completed	Uninterrupted school education. Sometimes these courses involve an academic reorientation, such as a change of subject studied.
	Fragmented	Studies interrupted for a long period, because of health problems, other employment opportunities, moving abroad or a lack of interest. However, after some time, these people decided to resume their studies, either out of their own initiative or through socio-professional integration schemes.
	Failed	School career terminated without qualifications, and without having had a chance to resume studies or subsequent training.

Spheres	Characteristics	Description
Professional	stable	Has been in the same profession or place of work for a long time, benefitting from internal promotion or additional work externally.
	flexible	Characterised by a multitude of different jobs through a career, whether in the same sector or in different sectors. Corresponds to the most common career model.
	Extra	In some cases, the people questioned had another job in addition to their principal professional commitment. Often the additional money was not the primary motivation, but a welcome supplement.
	Long term unemployment	The main reasons mentioned were health problems, being too old or having low educational qualifications.
Personal	Linear	Personal life courses follow a chronological order: first a relationship, then commitment, settling down and having children who live under the same roof until they become majors or finish their studies. Housing has been reappraised according to the contemporary family composition.
	flexible	Passes through all the phases in the personal sphere, but turns away from dominant models: single by choice, divorce and multiple marriages, early parenthood etc. In these cases geographical mobility is common.
	rupture	The trajectories are eclectic, either by choice (e.g., career moves or immigration) or due to compelling circumstances (e.g., migration or homelessness).

Becoming widespread in these three life domains – educational, professional and personal – digital uses arise under different circumstances. The more acute view of diversity across trajectories illustrated in the sample of interviews allows the analysis of links between digital uses and the points at which they become necessary. Thus in each of the domains, a series of successive stages are noted in which use of digital technology is seen as indispensable.

STAGES OF POOR DIGITAL AUTONOMY

Whether they were more invested in one of these three domains or, as in the majority of cases, in all three at once, the interviewees were confronted with numerous phases that entail the use of digital tools (table 2). The situations that need to be managed in these different life phases call for the use of different platforms, and can sometimes be managed offline, sometimes not. They also coexist with other uses. Taken on their own, these uses sometimes reveal similar practices, mastered by the interviewees. However, it is the convergence with other uses in these life stages and their unavoidable nature that makes these experiences high-risk in terms of digital exclusion. In these situations, there are personal characteristics that will make the experiences even riskier, such as a low level of education, poor socioeconomic conditions, age, having worked in a job that does not require the use of digital technologies, having no interest in digital technologies and living in a remote area.

Table 2: Overview of the uses of digital tools in educational, professional and personal domains.

Domains	Phases	Digital uses
Educational	Choosing an establishment or course	Search engines
	Investing in a school or in specific courses	E-mail, online educational platforms
	Getting involved in class interaction	E-mail, online educational platforms, social networks
	Completing work and homework	Search engines, e-mail, online educational platforms, social networks, word processor
Professional	Navigating the jobs market	Search engines, social networks and online databases
	Responding to a job advertisement	E-mail, word processor, file converter, online databases
	Integrating digital tools in the workplace	E-mail, word processor, file converter, VoIP
	Applying for unemployment benefits	Search engines, online databases, chat
Personal	Meeting up and dating people	Social networks, dating apps and sites, messenger
	Renting or buying a house	Search engines, estate agent sites, e-banking
	Engaging or separating	Search engines, e-administration, office, e-shop applications

The breakdown of digital autonomy materialises across two components: the ability to implement strategies for anticipated digital uses and the combination of the different uses required. Situating an approach within life transitions and ruptures positions these situations of poor digital autonomy within the unfolding of trajectories which differ according to age, sex and socio-economic status. On the basis of these interviews, the following sections expand on the risks of digital exclusion linked to these uses that are constrained by life transitions and ruptures. These latter may challenge individuals with uses that they have never been confronted with.

WITHIN EDUCATION

This life domain is organised around an academic cycle that spans from orientation to graduation. The interviewees' narratives identified four stages in particular, each accompanied by a particular set of digital uses, use of platforms and necessary skills. The first phase, 'choosing an establishment or course', mainly focuses on the needs linked to using a search engine to find educational establishments or programmes. The second phase implies the sending of emails and familiarisation with the establishment's online platform, as does the third phase, which is also largely reliant on the use of social networks for collaboration between students, such as sharing class notes or organising group work. Finally, the fourth phase of 'completing work and homework' encompasses all of the digital uses mentioned above, as well as word processor. At

all stages, social and cultural origins shape capacities and opportunities with digital engagements. For example, applying to university could be even more difficult for first generation students and people from lower economic condition.

Involvement in class interaction and completing homework can be seen as experiences that carry a high risk of exclusion, as constraints of use are higher in both situations, there is a limited choice of coping strategies and these risk negative consequences. The consequences in question here are objective, for example using an e-campus.

[...] when I started at university I couldn't understand their site at all. Things were always changing and I found the university system really complicated and had some difficulties. When you leave school you haven't been prepared for all that, and then their online research system [...] that really isn't easy at all. It was really only in the final year of my masters that I finally got it [...] the platform is there but the teachers don't explain how to use it and before you can even sign up to a course you have to find the course codes, it's mega-complicated. It would be simpler if we had syllabuses [...] we don't need to go on the internet for even more stuff. Well, I find it hard anyway [...] (F, 24 years old, university student after a reorientation)

In addition to the objective constraints there are also the subjective aspects, which take into account the pressure from norms of digital use. People who experience difficulties with digital use during these phases also face embarrassment, or even shame when telling others that they do not use social networks, or do not have an email address, smartphone or computer.

The people who were in my class [...] almost all of them were working and would say to me "you can send me an email" [to do a piece of group work] and then I had to keep a low profile because I couldn't get someone to send my emails for me (M, 49, unemployed because of health reasons)

When selecting an educational establishment or study programme, or signing up to an educational establishment or specific course, the use of digital tools can in some instances be worked around by going to the establishment in person or by asking the establishment for help. This avoidance strategy can also rely on friends or relations carrying out the necessary online administrative tasks. In the case of the latter, the informal network becomes essential and forms of dependence set in. However, the density and usefulness of informal networks vary hugely among social groups.

WITHIN PROFESSIONAL LIFE

The interviewees' narratives concerning the professional life domain highlighted that the internet was the leading resource when looking for employment. Given the huge diversity of online resources, interviewees' experiences show that it isn't simply a question of knowing how to do an internet search, but also how to find the method with the greatest impact to really get the most out of it.

On the contrary, we don't know how to use social networks, which are clearly more interesting. And, um, LinkedIn, [...] we don't use that and we've never been shown

how to use Monster [an online employment agency], [or] how to look for a job through social networks. That's what's really new [...] I use Word and then – what am I supposed to do next? (M, 24 years old, civil servant)

It is worth noting that it is necessary to have a combination of digital skills from the very first stage of a career path, including using search engines and email, searching in databases, getting to grips with layout tools and creating a professional profile, writing a cover letter, etc. Social media is also becoming more important in the professional sphere. However, the written and visual culture necessary for self-presentation on social media is less accessible for individuals with a low level of education. As a result, many job seekers are faced with the crucial need to master this combination of digital skills, which renders it a domain with a high risk of digital exclusion. Also, the acquisition of digital skills is strongly embedded in past experiences and shaped by cultural background and access to an appropriated technical and social support.

Job seeking can arise at different points along a trajectory: early in professional life, in the middle of a career or after a fairly long employment history. The risk of digital exclusion is interwoven into these prior trajectories.

Well let's say that the fact that we were at work, already there, we don't use the internet, labourers don't use the internet [...] because the work that the client wants done comes from the manual, so that's all it is (F, 63 years old, labourer)

Before, when I was working, I didn't really need word processor and all that. Then after, when I became unemployed, I had a lot of trouble with my CV, when I came to writing it, as it had been over 10 years since I had been in education (M, 32 years old, educator)

These extracts show that people of varied ages and life courses find themselves in difficulty when faced with obligatory digital use, independent of their previous uses. It is worth noting here that each of these people had significant professional experience. Also, a particularity observed in this life domain is that in addition to the constraints associated with job hunting, individuals find they need to be trained in using digital tools so as to keep their skills up to date, even though digital literacy is seen as a given in many cases. This maintenance of digital skills subsequently falls under the remit of personal initiative. However, not all trajectories allow to acquire or maintain an expected level of digital literacy. Individuals take paths constrained by socio-economic conditions as well as by gender roles, as illustrated in the interview below.

In 1991 [...] it was for women like me [...] who hadn't had the chance to work because they had dropped out of their studies to bring up their children, so it was young women who didn't have any experience or anything. And that helped us a lot [...] now technology is everywhere [...] and that was already starting in 1991 [...] so I did this to get training [...] I didn't have the time [to finish the training] because I stopped it to work [...] as a sales assistant, I had found casual work. So I left the course a month early [...] I needed the money. We were paid [for the training course] a little, but I was more interested in going to work. [...] After that, I didn't use the computer any

more, not for anything [...] So when I had to go back to it, the programs had changed, and I had actually never used these programs [...] nothing but a word processor, I had seen that in 1991, I had worked on that again in the 2000s but it had obviously changed again. But well, some good it was (F, 51 years old, unemployed)

Numerous testimonies show that, in the context of losing a job, the essential use of digital tools arises as an obstacle in the pursuit of a professional career, during a life period that is already marked with a difficult challenge. If alternatives to online job seeking are available, notably word of mouth and using an employment agency, the efficiency of these resources tends to be diminishing in many sectors of business. Moreover, in the majority of cases, it is obligatory to sign-up online to get access to rights linked to unemployment, whether to receive benefits or to access databases for job advertisements. To summarise, even if offline alternatives for job seeking and applying for unemployment benefits exist, these solutions are often less favourable – slower or less diverse – and thus can have negative consequences for those who have to resort to them.

Aside from the digital skills associated with looking for employment, online self-promotion using social networks is a key skill for finding a job. This is not just a case of making a profile on LinkedIn, but also involves maintaining a curated image using other social networks or writing emails and a CV in appropriate language. As a result, responding to a job offer and integrating digital tools into the workplace are situations where adaptation or coping strategies are limited according to the existing norms of use.

WITHIN PERSONAL LIFE

While the domain of personal life was frequently mentioned by interviewees, the accounts were less developed than for the preceding domains, which might be explained by an interest in maintaining privacy, but also by a reduced awareness of the role of digital technology in personal trajectories. Nonetheless, it emerged that transitions and ruptures in people's personal life, such as the birth of a child, marriage, divorce or the death of a partner lead to an evolution in digital practices. For example, the arrival of children is often a point at which parents have to use digital tools, for household organisation and time management but also to respond to the children's school needs. The death of a partner is also a rupture where we see a heightened risk of exclusion, when the partner had been responsible for digital administrative household tasks or when they had taken on the role of the household's digital specialist.

Personal life being a vast domain, we have here taken the trajectory of engagements as it appears as important as education and professional life in the development of a life course. Moreover, digital uses are widespread in this domain. The accounts confirm that the use of online platforms, apps and social networks to meet and to see people has been integrated into interviewees' private lives. If the level of use of these digital practices varies hugely from one interviewee to the next, the importance of acting and interacting on the platforms is common, particularly amongst people with a higher socio-economic status. One interviewee explained his experience with dating apps at a point in his life course when he had just moved to spend several months abroad.

Actually, just to meet people, I actually downloaded a digital app called Meetup [...] People in the same geographical location organise meetings with a theme, like a cooking workshop... In Ireland there were organised language exchanges for example [...] another example... is a dating app, for meeting men, because to meet men it's

much easier on an app, if like me you live [in a town where there aren't any] gay bars [...] so it's unavoidable [...] this kind of app is really very difficult, I was like that before too – you want to meet up with someone but you also don't want to meet up. It's really very complicated (M, 24 years old, civil servant)

Beyond the trivial appearance at first glance, the interviewees confirmed the growing importance of these apps in social relations, and the place that these can take in certain courses, such as the one recounted in the above extract. More generally, the interviewees used a series of social networks, apps, websites or platforms for communication and family life, particularly in the case of transnational families.

The room for manoeuvre when faced with digital uses in personal life is decreasing. This materialises in the fact that, for each stage, even if offline solutions do exist (for example using a telephone, going to a real estate agent or going to the supermarket), the interviewees mentioned a growing pressure to use digital technology. The advantages cited were the quantity and diversity of information accessible, and the possibility of online transactions, but also saving time when organising one's personal life. However, not all the social groups will benefit in the same way of these positive outcomes. For example, use of online banking remains a key concern for elderly.

CONCLUSION

The perspective developed in this contribution was to analyse the structure of digital exclusion risks around the transitions and ruptures that shape the pattern of life courses. Although digital uses can be considered as individual experiences, the focus here was to chart the fact that they are not wholly dependent on individual attributes, like age or skills, but also on the social context in which they take place.

Two things emerged from our research. Firstly, the trajectories which these uses are woven into are not linear. Also it seems that the more the courses are upset by ruptures or bifurcations, the more that risks of digital exclusion will be present and coexist with a form of social vulnerability. This said, a trajectory's continuity does not protect people *a priori* from a risk of digital exclusion. For one thing, the continuity of a trajectory doesn't tell us anything about the social situation of the individual in question. In addition, this continuity can mask the latent, and all the more serious, risk that rupture in the trajectory will be significant for the individual. This is the experience, for example, of people who are faced with losing their job for the first time, after a relatively stable career path. Confronted with the process of job seeking sends them back to digital use or non-use which up to that point they had never tried under constraint or been challenged with. The life course perspective focuses on change: becoming a student, starting a job, becoming unemployed, marrying, divorcing, becoming a widow, retiring etc. Human lives are permeated by change. Our research shows an intersection between digital uses, ever more standardised and unavoidable within the life stages, and the 'becoming' of individuals who enter into a non-standard trajectory and who take different significances according to these individual trajectories. Highlighting these different forms of 'becoming' allows us to understand how past courses and the significance of transitions and ruptures shape the constraints of digital use within life stages. So, losing a long term job will be experienced differently to switching between short term jobs. But in terms of digital use, this distinction is not visible.

Secondly, the situations where digital use is required are characterised by a variable degree of room for manoeuvre. This is comprised of the scope of choice and the possibilities of adaptation, or even coping, in relation to the necessary uses at particular life stages. The normative quality of digital use introduces new constraints within courses. Subsequently, points of transition or rupture are also the points at which digital and social inequalities risk being exacerbated. Having to permanently adapt to the dominant norms to access the same rights and services as others does not guarantee equality (Marquis, 2010). The situations described in the three life domains studied – educational, professional and personal life – illustrates that, faced with similar situations which demand digital use, individuals are not confronted with the same needs to adapt their use to achieve their aims (Van Deursen & Helsper, 2015). Subsequently, it is not just a question of reinforcing individual skills but also of questioning the way in which information and services are digitalised and made available for everyone (Bonnetier, Brotcorne, & Vendramin, 2019; Yates, Kirby, & Lockley, 2015). For example, how do institutions envisage the maintenance of offline alternatives? Are they designed as last resorts for users in difficulty, or as quality services, equivalent to those online?

The absence of the possibility of choice makes up part of the definition of digital exclusion. The situational approach proposed in this article has tried to give an account of the form that this constraint takes in individual trajectories. The non-linearity of these trajectories illustrates the difficult relation between digitalisation and social exclusion (Helsper, 2012). Emphasising the transitions and ruptures within these trajectories allows us to foreground the stages that are likely to bring individuals face to face with the difficulties generated by using digital technology, regardless of these individuals' social status. Finally, the analysis has allowed us to more precisely describe the personal and contextual circumstances in which the norms of digital use occur. Within this framework, gaining skills and empowerment can be understood in view of the space which digital constraints leave for the will to act across someone's lifespan (Santelli, 2019). This reflection thus paves the way for deeper inquiries to identify the consequences of the digital-by-default services on the decrease in the facilitative potential of digital tools at crucial points of life.

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