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TIC-BELGIUM

Transnational Belgium. International social and legal reform organizations and congresses, 1815-1914.

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NETWORK PROJECT

TIC-BELGIUM

Transnational Belgium. International social and legal reform organizations and congresses, 1815-1914.

Contract - BR/121/A3

FINAL REPORT

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ABSTRACT

Context

Building on the latest innovations in digital humanities, network analysis, and elaborating a newly developed Virtual Research Environment for the study of international organizations, this project has opened new perspectives on the history of social reform in the period 1815-1914, with a special emphasis on the Low Countries. The project has shown the ways in which local and national welfare policies and legal regimes emerged in this period and has demonstrated that such innovations were deeply embedded in transnational networks. Within this broader context, it has focused in particular on the involvement of reformers from the Low Countries, and highlighted their activities at home and abroad. The overall aim of the project was to demonstrate the interconnectedness of local activism, national reform agendas and the transnational circulation of ideas and practices related to welfare, and to make an empirical contribution to the understanding of the transnational field of social reform as both a social and discursive field. Despite the increasing salience of national and transnational exchanges of ideas about social reform, the main orientation of the transnational actors continued to be the local (urban) level. We have demonstrated this, firstly, by looking at the range and relative strength of domestic, national and transnational ties of carefully selected focus groups and secondly, by examining the 'mental maps' of the reformers in question, as these can be gleaned from reform discourses in the development of welfare provisions and social change from the 19th century to the First World War.

It is only through collaborative research that we were able to assess the special position of Belgium and the Netherlands as a hub of contacts and transfers across borders. The Virtual Research Environment (VRE) designed for the study of 19th and early 20th century international organizations and congresses provides a shared database and online access to dispersed sources from archives and libraries across Europe and the rest of the world. Digitization provides opportunities to overcome some of the heuristic problems of transnational research. Beyond the history of social and legal reform and the attempt to bring particular collections and databases together, this project contributes to the use and assessment of methodologies from the digital humanities (such as Natural Language Processing (NLP) techniques) and the development of Virtual Research Environments. For this purpose we maintained close relations with DARIAH (Digital Research Infrastructure for the Arts and Humanities), which aims to enhance and support digitally-enabled research across the humanities), EHRI (European Holocaust Research Infrastructure, which puts digital collaboration and presentation of information in practice) and CENDARI (Collaborative European Digital Archive Infrastructure, which aims to integrate digital archives). From the onset the multidisciplinary collaboration between legal and social historians, sociologists, digital research infrastructure specialists and archivists was user driven. Researchers were invited to get involved in selecting the sources, in choosing the appropriate data and data structures, and in amending metadata with research oriented information. TIC-Collaborative was adjusted in a tailor-made way taking into account the particular needs of all the partners of the project, so that it encouraged and facilitated collaborative research.

The project served as a pilot project within the newly established international infrastructure TIC-Collaborative, which is a Virtual Research Environment (VRE) for the study of 19th and early 20th century international organisations and congresses, and integrated sources from archives and libraries in Belgium, across Europe and the rest of the world into the platform. Besides TIC Belgium, the VRE also hosts and facilitates another project: TIC International. The focus of TIC-Belgium is on the Low Countries and this is particularly relevant for both the **methodological and thematic objectives**:

Objectives

- **Thematic objective 1.** Make an empirical contribution to the understanding of the transnational field of social and legal reform, and of long term dynamics of contention, by highlighting the special role of Belgium and the Netherlands and social and legal reformers originating from these countries in the transfers and exchanges of 'policy-relevant' knowledge.
- **Thematic objective 2**. The re-evaluation of successes and failures of the international intellectual dynamics in socio-legal reforms.
- **Methodological objective 1**. Develop recommendations for the construction of virtual research environments in a Belgian research environment and state of the art scanning and OCR processing of documents.
- **Methodological objective 2**. Adopting graphical, linguistic and sociological tools for historical analysis of both structured (databases) and non-structured data (documents).

Conclusions

TIC Belgium has made many methodological and empirical contributions to the understanding of the transnational field of social and legal reform which resulted in over 30 research articles, chapters and book projects; more than 30 conference and workshop contributions; the publication of extensive datasets and a unique collection of primary historical sources; 7 international workshops, training and conferences and 3 PhD's.

The project has significantly stimulated the development of TIC-Collaborative, which is a Virtual Research Environment (VRE) for the study of 19th and early 20th century international organisations and congresses. TIC-Collaborative was adjusted in a tailor-made way taking into account the particular needs of all the partners of the project, so that it encouraged and facilitated collaborative research. The experiences gained by the project led to the following **key recommendations** for future humanities project collaborating via VRE.

1) The development of a VRE is an ongoing process in need of thoughtful reflection and ongoing dialogue with all project partners.

2) VREs must serve the needs of its users and should thus learn from the practices and progressive insights that result from its users.

3) VREs need to be flexible and customizable. We advise a modular and distributed approach.

4) The development of VRE must be considered as opportunities for community building. Collaboration is not only efficient, but also fosters the 'co-ownership' of the tools and stimulates the motivation for their take-up and use.

5) Data needs to be published in a step by step approach, ideally as part of a data management plan based on the FAIR (Findable, Accessible, Interoperable and Re-useable) principles of research data management.

Keywords

Digital Humanities, Transnational History, Network Analysis, Sociology of Knowledge, Social and Legal History

1. INTRODUCTION

Building on the latest innovations in digital humanities, network analysis, and elaborating a newly developed Virtual Research Environment for the study of international organizations, this project has opened new perspectives on the history of social reform in the period 1815-1914, with a special emphasis on the Low Countries. The project has shown the ways in which local and national welfare policies and legal regimes emerged in this period and has demonstrated that such innovations were deeply embedded in transnational networks. Within this broader context, it has focused in particular on the involvement of reformers from the Low Countries, and highlighted their activities at home and abroad. The overall aim of the project was to demonstrate the interconnectedness of local activism, national reform agendas and the transnational circulation of ideas and practices related to welfare, and to make an empirical contribution to the understanding of the transnational field of social reform as both a social and discursive field. Despite the increasing salience of national and transnational exchanges of ideas about social reform, the main orientation of the transnational actors continued to be the local (urban) level. We have demonstrated this, firstly, by looking at the range and relative strength of domestic, national and transnational ties of carefully selected focus groups and secondly, by examining the 'mental maps' of the reformers in question, as these can be gleaned from reform discourses in the development of welfare provisions and social change from the 19th century to the First World War.

By taking its cue from Belgian and Dutch cases, the general aim of this collaborative project was to make an empirical and methodological contribution to the understanding of the transnational 'monde des causes' (Saunier 2012). It is only through collaborative research that we were able to include various spatial scales and different countries. This kind of collaboration has been announced before, but without the proper digital environment or tools it is difficult to establish sustainability (Patel 2011). TIC-collaborative used **Nodegoat** as a data management system to collaborate and enrich datasets. Nodegoat (developed by Lab 1100) is a 'web-based database management, analysis and visualization platform. Nodegoat offers researchers a digital password protected working environment to store, add, edit, query and visualize their data. Nodegoat enables thus scholars to exchange, co-create and enrich datasets which stimulates the identification and disambiguation of so-called transnational lives. By December 2018, there were a total of 34 registered users of the TIC-Collaborative Nodegoat instance. These registered users can be broken down into a number of categories: team members (8), technical support (6), students (16) and external researchers (4). Although most of the data was collected via the traditional full-text search and manual metadata creation, the project has successfully experimented with harvesting meaningful information (semi-)structured documents. For example, more than 22,000 publications of 1105 Dutch congress attendees were identified and the metadata was imported in our database. The disambiguation of concepts through the use of URIs allows us to dynamically make use of external data and metadata related to persons, locations and events who played a role in social and legal reform. Initiatives such as http://openglam.org and http://lodlam.net illustrate how the use of Linked Data principles are percolating into the cultural heritage domain. Both the US and the EU flagship digital library projects, respectively the Digital Public Library of America and Europeana, are currently embracing Linked Data. However, one should be wary to blind-sightedly adopt new technologies, seeing as the open-world assumption underlying Linked Data represents important challenges to the quality of both data and metadata. If the Digital Humanities community wants to apply Linked Data principles on a large

scale, we need to perform fundamental research and critically assess the results of using Linked Data tools.

Through this research related to new and innovative ways to handle digitized historical primary source material, the project provided methodological and technological input for TIC-Collaborative, which is a Virtual Research Environment (VRE) for the study of 19th and early 20th century international organisations and congresses. The TIC-Collaborative includes (1) a relational database which links international congresses, international organizations, people and publications; (2) a corpus that integrates digitized primary sources concerning international congresses (e.g. conference proceedings, reports, lectures and attendees lists) and international organizations (e.g. yearbooks, periodicals, articles of association and pamphlets) (3) a bibliography of relevant publications regarding transnational social reform in the long 19th century; and (4) general communication and cooperation possibilities. TIC Belgium served as the first pilot project within this new international digital infrastructure and integrated sources from archives and libraries in Belgium, across Europe and the rest of the world into the platform.

The research results (both articles as well as data collections) can be found via the TIC-Collaborative public website and are available for everyone, seeing as we endorse as far as possible the Open Access and Open Science movements. TIC has also organized several workshops and international congresses. These workshops were a forum for international specialists, students and other interested scholars. The researchers involved in the project also took part in several relevant international congresses. The project is also relevant to the general public and offers (basic) information on relevant published articles, book projects, colloquia, research methods and tools, etc. Seeing as offering research tools (e.g. the corpus, the database) to a broad public entails the risk of insufficient use or even misuse, the necessary methodological and heuristic basic information are provided as well. A major output is the improved *TopicModelingTool*, a graphical user interface (GUI) to the well-known topic modeling tool MALLET. Simon Hengchen (TIC) and Marijn Koolen (Huygens Institute of Dutch History) added the possibility of specifying a custom regular expression (RegEx) to correctly tokenize languages with accents and diacritics. The software, written in Java, now allows researchers not familiar with command line tools such as the original MALLET to easily perform (Latent Dirichlet Allocation) topic modeling.

2. STATE OF THE ART AND OBJECTIVES

This project ties in with the turn towards a relational and transnational approach in the study of the ideas, actors and networks that shaped welfare state politics and policies in Europe and beyond (Rodgers 1998; Kettunen and Petersen 2011). The 'transnational turn' in modern and contemporary history has given rise to a growing body of work that challenges history writing that restricts itself to what happened within national borders (for Belgium, see: Verbruggen, Laqua and Deneckere 2013). This trend has also affected the history of social policy, which used to be a field dominated by national perspectives or comparative frameworks operating on national levels. Transnational history, however, not only takes place in transnational spaces, but also reverberates in other spatial contexts, ranging from the global to the local (see: Wolffram 2007; Struck, Ferris & Revel 2011). We are, therefore, particularly interested in the relations and interactions between the spaces where transnational actors are active. Thanks to preliminary work resulting in a large dataset of internationalists engaged in social reform (for first results, see: Leonards and Randeraad 2010), we are now able to single out a larger group of 'rooted cosmopolitans', described by Sidney Tarrow and Donatella della Porta as "people and groups who are rooted in specific national contexts, but who engage in regular activities that require their involvement in transnational networks of contacts and conflicts" (Tarrow 2005). Belgian and Dutch rooted cosmopolitans played an active role on many reform fronts in the century between 1815 and 1914. Although it has already been indicated that smaller countries like Belgium and the Netherlands were important 'agents' in social, legal and cultural internationalisms (Herren 2009, Van Daele 2005, Laqua 2013), the contributions of Belgian and Dutch reformers to social reform ideas, simultaneously in the transnational arena and at the local level, remain largely unexplored territories.

We have directed attention to the dynamic connections between and among reform ideas and practices in a period of 'amazing acceleration of interconnectivity' (Rosenberg, 2012). The call for social and legal reform arose from the social question characterized by a multiplicity of (perceived) problems and solutions related to industrialization and urbanization. Genuine concern for and fear of social upheaval among the better off gave rise to an amalgam of responses, which throughout the long nineteenth century continued to have changing transnational dimensions. The diversity of the social reform movements is reflected in the different forms the welfare state has eventually assumed in European countries, which in turn has led to a certain degree of fragmentation along national lines of the scholarship dealing with its origins (Castles et al. 2010). Our transnational perspective enabled us to retrace links, break out of alleged path dependencies, and identify the actors' strategic choices from the available solutions.

While Tarrow and della Porta primarily focus on present-day movements, the relationship between local, regional or national attachments, on the one hand, and far-reaching ambitions, on the other hand, can also be observed in earlier periods. This broader dimension is evident from the work of Margaret Keck and Kathryn Sikkink, who launched their discussion of contemporary 'transnational advocacy networks' by considering anti-slavery movements in the late eighteenth and early nineteenth centuries (Keck and Sikkink 1998). They studied actors with shared values or purposes that were conceived or portrayed as universal: human rights, environmental problems, educational and social reform. From a long-term perspective, these are recurring and sometimes interrelated objectives highlighted in the "history of transnational issue networks". Such networks were carriers for the import, transformation and export of ideas and practices to new contexts, including the Belgian and Dutch setting. Moreover, Belgium (and Brussels in particular) was not only one of many

sites in these transnational networks, but constituted a real hub (Laqua, 2013). The strong international position of Brussels today, which continues to create employment in the capital and its hinterland, is a direct consequence of 19th-century initiatives. From a long–term perspective the social reform issues have become recurring and sometimes interrelated objectives of contention. Movement dynamics and mobilization structures can be related to the so–called "framing" of meanings and issues in different settings (Benford and Snow 2000), for instance the framing of temperance or pacifism as related- or sub-causes within the movement for women's rights or the 19th century 'self-help' master narrative in social reform.

Objectives

Taking its cue from the Low Countries case, the general aim of this collaborative project was to make an empirical and methodological contribution to the understanding of the transnational 'monde des causes' (Saunier 2012) as a social and discursive field (Topalov 1999), and of long term dynamics of contention. Knowledge of the way in which these different spheres are interrelated and of the roles played by social reformers from Belgium and the Netherlands in the long 19th century, provides insight into the political exchanges between the general public, civil society, non-governmental organizations and policy-makers. As such this project contributed to a better understanding of the transnational origins of the welfare state and therefore furthers the general historical awareness of the way in which (European) national histories and identities are interconnected.

The international congresses of the 'long 19th century' can be seen as laboratories for the development and diffusion of reformist ideas (Vanthemsche 1990). Progressive liberal in origin, they were used as a part of a repertoire to contest existing power relations and the social and cultural status quo. The participants shared a belief in the individual and moral origins of social problems in combination with socio-structural variables. The project started out from a group of internationalists based in, or originating from, the Low Countries, who in the period 1815-1914, while moving 'physically and cognitively outside their origins', continued to interact with domestic social networks, resources, and opportunities (Tarrow 2005).

Researchers, driven by specific research questions and particular thematic interests, were stimulated to add their information to the already existing dataset of internationalists. In this interactive processes of co-creation, data was shared and enriched. This resulted in an extensive collection, containing over 23,000 people, 23,000 publications, 1,600 congresses and 5,500 local and (inter)national organizations. This dataset will definitely stimulate further research on transnational dynamics in the 19th century and has by now received great attention which has resulted in interesting collaborations.

Three different thematic fields of reform were researched in the sub-projects of the PhD-students: **(1)** The first sub-project articulates methodological and theoretical frameworks in order to challenge the official narrative of the Belgian prison reform. **(2)** The second sub-project studied the "culture of international congresses" via a relational and actor-centred approach by applying SNA techniques to a large sample of congress attendees (> 7200 people). An answer is given to question why Belgian reformers attended international congresses and to what extent this contributed to their pursuit to uplift society morally. **(3)** A third project on colonial hygiene was not completed by the PhD-candidate, however a significant amount of information has been added to the collective dataset.

This data was valorised in an article, co-authored by Jan Vandersmissen, which will be published in the Belgian Journal of History (BTNG).

In all of these projects, methods developed in social network analysis and prosopography were combined. Each sub-project mapped the actions, repertoires and connections of the reformers throughout the period under consideration. This made it possible to weigh local, national and transnational connections, to highlight centralization and professionalization processes, to empirically confirm the decline of the 'encyclopaedic movement' (Struck et al 2011 and Müller 2012) and to illustrate differences between localities in the Low Countries. The projects did not stop at the understanding of long-term dynamics of contention and the identification of circulatory regimes, but connected these to the concrete spheres of action of the people and concepts involved, along the lines of international relations investigating 'policy entrepreneurs' or 'brokers'.

In addition to this, based on corpus analysis, (co-)citation analysis and close reading, researchers zoomed in on the way in which social and legal issues were defined and problematized. By mapping the social and organizational relations of intermediary actors active in international congresses and focusing on the transnationalization of specific connected discourses, we were able to trace and refine a sequence of local and transnational 'circulatory regimes', from individual contacts across borders to the formation of international organizations and disciplines (Saunier 2008, 2009). By following the actors and tracing their entanglements we contributed to a better understanding of their intellectual and social impact.

Beyond the history of social and legal reform, this project has contributed to the use and assessment of methodologies from the digital humanities. **(4)** A fourth PhD project examined whether LDA ("topic modelling") tools can be harnessed to semi-automatically detect semantic change. Additionally, the experiences we acquired in this interdisciplinary, collaborative and digital research project resulted in several important advices for the development of Virtual Research Environments (*see: 4. scientific results and recommendations*).

3. METHODOLOGY

3.1. VRE, infrastructure and digitization

While researchers of social reform movements and collective action are increasingly adopting network concepts and perspectives in their work (Lemercier 2011 and Diani 2011), their use of formal network analysis tools for the exploration of how networks of people and discursive frameworks come into existence, is still very limited due to heuristic barriers: identifying valid sources of data to chart the evolution of interorganizational networks, and spatio-temporal problems in searching, processing and visualizing research data. It is only through collaborative research that we were able to include various spatial scales and different countries. This kind of collaboration has been announced before, but without the proper digital environment or tools it is difficult to establish sustainably.

A VRE needs to be conceptualized, first and foremost, as a scientific community-building project rather than as an infrastructure project. Researchers have to be encouraged to become involved according to the principles of information crowd-sourcing. Without community buy-in, the VRE cannot fulfil its function (Carusi & Reimer 2010). To foster the joint discovery of how a VRE can be integrated in the work methodology, all parties involved have to be able to reflect on the aptitude of their present working methods on the platform (van der Vaart 2010). Researchers were invited to participate in the selection and the description of the material by adding archival metadata (Anderson and Blanke 2012). All sub-projects have contributed to the VRE by exchanging their data and sources and thus co-creating a shared corpus. The researchers were also invited to suggest and reflect on infrastructural adaptations and innovations, which made the environment more user-friendly and efficient.

In addition to the sources that were already available via digital libraries and archives, the researchers have identified complementary sources in Belgian archives and libraries, notably conferences proceedings preserved in the Royal Library, UCL Library, Ghent University Library and the Mundaneum (Mons). Many of these sources were scanned by the project and its partners to produce high-quality OCR scans of the documents. Mass digitization as such was not the project's central aim, rather we wanted to create a virtual infrastructure which offers access to digitized and dispersed material in a central observatory. As part of the TIC-collaborative project, in 2014-2015, a detailed analysis was undertaken of the then available 'text platforms'. A range of existing platforms (including Islandora, Veridian, TextGrid, Text-image Linking Environment (TILE), Transcribe Bentham, Shared Canvas, Annotated Books Online and Trove) were evaluated against a range of criteria, including:

- **organisational aspects** of the platform (including hosting, open source software, lead institution, development roadmap, activity developer community, documentation etc.)
- **data aspects** (e.g. import, export formats and metadata capabilities)
- **user management capabilities**
- **annotation features** (including transcription, auto-generation of OCR, improvement of OCR, group comments, personal notes, multilingual transcription possibilities)
- **search functionalities** (e.g. full text, metadata, faceted search)
- **user-friendliness** and
- **extra tools** (e.g. modular architecture enabling plug-ins of external tools and services and Named Entity Recognition).

As a result of this evaluation, the open-source software framework Islandora (http://islandora.ca) for the collaborative management and discovery of digital assets was selected for the TIC Platform. Islandora is an open source digital repository system based on Fedora Commons, Drupal and a host of additional applications.

However, during the development and implementation process, a number of issues began to arise, which became more pronounced when using the platform: shortcoming and bugs (e.g. import), the performance and scalability of the ingestion process (e.g. the OCR-process and the uploading text often took many hours, even days) and the management and customisation of the platform. In a recent article in the Digital Library's journal, July / August 2016 issue of D-Lib, it became apparent that the challenges faced by the TIC project team were shared by other similar teams, see: Deploying Islandora as a Digital Repository Platform: a Multifaceted Experience at the University of Denver Libraries.

During 2016, the challenge therefore was to bring the development and maintenance of the Islandora platform in-house at Ghent University. We did this in collaboration with DARIAH. The first step in this process was to create a DARIAH installation of Islandora at Ghent University. Following discussions both with the TIC-collaborative team, colleagues from the University Library and the Faculty IT-Service, it was agreed to set up a development and production server for the DARIAH text platform. Unfortunately, due to lack of staffing capacity in the Faculty IT-Department, the requesting and analysis of these new development servers were significantly delayed. In addition, the Islandora installation was not as user-friendly as originally anticipated, not for the users, and not for the technicians tasked with debugging the source code, in particular where updates were concerned.

Three options were therefore considered: **a)** to continue as outlined in the 2016 Work Plan during 2017, to **b)** prepare a tender for the external development of the DARIAH Digital Text Analysis platform or **c)** to explore other options, such as the International Image Interoperability Framework (IIIF) implementation. From-scratch development of the envisioned platform would be too expensive, time consuming, and unnecessary, as there are many existing solutions that already partially fulfilled the requirements of the corpus management platform. We therefore looked for promising existing solutions and reached out to them with the TIC requirements as a guideline. In collaboration with the Ghent Centre for Digital Humanities and in the framework of DARIAH-BE, a survey was conducted at Ghent University to gain insights into the current data collection and digitisation processes of researchers throughout the Faculty of Arts and Philosophy involved in text analysis.[1] After additional discussions with the involved stakeholders (the Ghent Centre for Digital Humanities, the University Library, and the Faculty IT-Service), it was decided to continue with option c. The **International Image Interoperability Framework (IIIF)** is an open framework and standardised method to publish image-based resources, to be viewed, cited, and annotated by any compatible image-viewing application. Notwithstanding some limitations (for example its - by definition - focus

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[1] Joke Daems, Tecle Zere, Christophe Verbruggen, and Sally Chambers. Understanding the infrastructural needs of researchers working on digital text analysis. *Equip & Engage - Research and Dissemination Infrastructures for the Humanities*, 4-6 April 2018, Leuven, Belgium.
 https://www.arts.kuleuven.be/echic-2018/abstracts-bios#project presentations

on images), it is the most advanced and widely supported framework that allows researchers to build corpora across institutional borders and collections.

Over 1200 publications, mostly congresses proceedings, were gathered collectively within Nodegoat. Detailed metadata was added as well as carefully chosen thematic tags. This valuable corpus is made IIIF-accessible and is now preserved by the Ghent University library. It is downloadable as pdf's and will become full text searchable in a text platform provided and developed by the Ghent University Library. In addition to this, the TIC-collection will be used to test the IIIF corpus Management Platform (CMP) that has been developed by DARIAH-VL as part of the Flemish contribution to DARIAH Belgium. The CMP is powered by Omeka-S and is part of the Virtual Research Environment Service Infrastructure.

3.2. Network approaches and prosopography

An accepted way of mapping the evolution of networks over time is through the multiple memberships of activist cohorts (generations). Drawing upon anthropology as well as formal cluster methods, Ann Miche (2007) combined information of events, organizations and individuals in a rare longitudinal and historical SNA (Social Network Analysis). Multiple memberships have been used several times as an indicator for organizational exchanges. Looking at both local (organizations, administrations) and transnational organizational milieus (congresses and organizations), we address issues of core-periphery relations and cohesive subgroups. In doing so we follow the line of enquiry of Rosenthal et al. (1985), who managed to create a genealogy of causes in 19th century New York State, focusing on the multiple memberships of women active in social reform movements. We followed this line of enquiry and focused on the co-presence or co-membership (as participants were often referred to as members) of congresses, which revealed meaningful trends and indicated latent patterns. Our main research interest lied in the internationalisation of the social question and the emergence and development of the institutional ties that were generated by multiple memberships. Above all, we have looked for different and changing patterns of attending international congresses. A change in the web of relationships indicates changes in status, personal interests and opportunity structures (Giuffre, 1999). It reveals the relevant social circles and (congress) fora in which the creation and circulation of ideas took place. Depending on the researcher, the subsets that were used varied from a few hundred to several thousands of actors.

A second way to connect the local and the transnational is by looking into the personal networks of our reformers and thoughtfully selected focus groups. Combining biographical enquiries and prosopographical approaches enabled us to include social attributes such as age, gender, education, profession, ideology and religion into the analysis. Significant attention was paid to the correspondence networks of individuals, which can via (co-)citation analysis techniques be considered as a global corpus of data and a representation of the evolving conversation going on in scientific or intellectual fields (Gingras, 2010), and the published contributions of intermediary actors (brokers) between transnational networks and national policy makers. The career paths illuminate the role of international knowledge networks in supporting local and/or national power positions and/or individual careers. The question whether movement actors who failed to influence their national or local government sought international support in order to put pressure on the local government was of major concern in each of the sub-projects. When or how did they obtain a dominant in the local or national political fields? How was knowledge spread via individuals and groups who engaged in transnational networks? This micro-analytical scale showed how reformist discourses were (not) put into practice and also highlighted the intellectual, organizational and social

'antecedents' of the first reformers, which allowed us to integrate the period prior to the congresses of social reform (1815-1840).

3.3. LDA and detecting semantic change

Contrary to what has been done to date in the hybrid field of natural language processing (NLP), the doctoral thesis of Simon Hengchen holds that the new approach developed below makes it possible to semi-automatically detect semantic changes in digitised, OCRed, historical corpora. We define the term *semi-automatic* as "making use of an advanced tool whilst remaining in control of key decisions regarding the processing of the corpus". If the tool utilised – "topic modelling", and more precisely the "Latent Dirichlet Allocation" (LDA) – is not unknown in NLP or computational historical semantics, where it is already mobilised to follow a priori selected words and try to detect when these words change meaning, it has never been used, to the best of our knowledge, to detect which words change in a humanistically-relevant way. In other terms, our method does not study a word in context to gather information on this specific word, but the whole context – which we consider a witness to a potential evolution of reality – to gather more contextual information on one or several particular semantic shift candidates. In order to detect these semantic changes, we use the algorithm to create lexical fields: groups of words that together define a subject to which they all relate. By comparing lexical fields over different time periods of the same corpus (that is, by mobilising a diachronic approach), we attempt to determine whether words appear over time. We support that if a word starts to be used in a certain context at a certain time, it is a likely candidate for semantic change. Of course, the method developed here and illustrated by a case study applied to a certain context: that of digitised, OCRed, historical archives in Dutch.

Nevertheless, Hengchens' work also describes the advantages and disadvantages of the algorithm and postulates, on the basis of this evaluation, that the method is applicable to other fields, under other conditions. By carrying out a critical evaluation of the tools available and used, this doctoral thesis invites the community to evaluate the reproducibility of the method, whilst pointing out obvious limitations of the approach and propositions on how to solve them.

4. SCIENTIFIC RESULTS AND RECOMMENDATIONS

The table below provides an overview of TIC-Belgium's output. One can find more detailed information about each of these outputs in sub-sections 4.1. to 4.5 and chapters 5 and 6 of this report.

Output	WP*	Description
4.1. Infrastructure		
Website TIC Belgium	WP5	● TIC-Collaborative public website is used to communicate research results (both articles as well as data collections). ● https://www.ugent.be/
Tailor-made tools and adjustments TIC Collaborative	WP5	● Development of API and ingestion linked data module, adjustments to the SPARQL ingestion module. ● https://nodegoat.ugent.be/
Central observatory dispersed sources	WP5	● All data and sources are curated by the Ghent University Library and Amsab-institute of Social History.
4.2. Data, collection and tools		
Relational dataset	WP2	● ~ 1600 international congresses, ~ 5500 (inter)national organisations, ~ 23,000 publications and ~ 23, 000 persons ● To be consulted via https://nodegoat.ugent.be/ and https://anansi.clariah.nl/
Integration and linking to external data collections in TIC-Collaborative	AD	● UIA Open Calendar, UIA Open Yearbook, Justhis.be, Koninklijke Bibliotheek Nederland, Het biografisch portaal van Nederland, VIAF, dbpedia Wikipedia, ODIS, Worldcat, Internet archive, Europeana, Gallica, Etc.
Digitization of a collection of historical sources	WP3	● Sources selected by researchers. ● In collaboration with partner institutions Ghent University, Maastricht University, Université Catholique Louvain, Université libre de Bruxelles, State Archives and Mundaneum.
To add metadata to the collection of historical	WP3	● The metadata was collected in https://nodegoat.ugent.be/

sources		● The metadata can be consulted via Ghent University Library or https://lib.ugent.be/
Inventory of the collection 'World fairs and international congresses'	WP3	● The inventory can be consulted via https://search.arch.be/
Research tools and methodology	AD**	● The tools and methodology can be found via http://www.tic.ugent.be/
4.3. PhD-projects		
PhD Simon Hengchen	WP4	● Defended (16/12/2017).
PhD Thomas D'haeninck	WP1	● Defended (16/10/2018).
PhD Amandine Thiry	WP2	● To be defended (Summer 2019)
PhD Lisa van Diem	WP1	● Not completed, but the significant data collected was published and resulted in a research article
4.4. Conferences, workshops and training		
7 international workshops, training conferences	WP1 WP2 WP3 WP4 WP5	● Conferences and workshops were held on transnational history, the history of social reform, mobility, social network analysis, digital approaches towards serial publications, topic modelling, etc.
4.5. Recommendations		
Recommendations for VRE	AD	● Can be consulted in this report and via http://www.tic.ugent.be/.
Survey on text management platforms	AD	● Can be consulted here.
Recommendations for long-term data curation and management of TIC relational data	AD	● Can be consulted in this report.

5. Dissemination and valorisation		
Data publication strategy and LOD	AD	• TIC's publication strategy is supported by DARIAH-BE and will be included in the Virtual Research Environment Service Infrastructure.
2TBI	AD	• 2TBI provides data about transnationally mobile Dutch social reformers, male and female, including politicians, officials, lawyers, clergymen, medical doctors, businessmen, academics, teachers, etc. (1840-1914). • Can be consulted here.
Social Internationalism	AD	• A dataset on international congresses and organizations related to the social question • Can be consulted here.
Dataset: French, British, Swiss and American visitors to international social reform congresses, 1880-1920	AD	• More information on this dataset can be found here.
6. Publications		
> 30 conference and workshop contributions	WP1 WP2	• The references can be found in this report and via http://www.tic.ugent.be/.
> 30 research articles, chapters and book projects	WP1 WP2 WP4 AD	• More information can be found on http://www.tic.ugent.be/.

* WP: work package

**AD: Additional Deliverable

4.1. Infrastructure

TIC-collaborative uses **Nodegoat** as a data management system to collaborate and enrich datasets. Nodegoat (developed by Lab 1100) is a 'web-based database management, analysis and visualization platform. Nodegoat offers researchers a digital password protected working environment to store, add, edit, query and visualize their data. Using Nodegoat, scholars define, create, query, update, and manage any number of data sets by use of a graphical user interface. The platform is object-orientated, which means that in the data model people, events and other 'objects' are treated as equals. Nodegoat is primarily concerned with the creation and contextualization of single objects

that move through time and space, but queries and selections can also be made, for analysis outside Nodegoat. It is possible to export selections in order to process data in external software, for instance popular open-source network analysis and visualization software like Gephi or software for multivariate analysis in the context of prosopography.

TIC's Nodegoat application is hosted on the servers of Ghent University library in order to enhance the performativity, the usability and the stability of the website and to set up a better back-up workflow. In the course of the project, we have intensely contributed to the improvement of Nodegoat. TIC has ordered several new features (cross-referenced data entry, multiple sub-object entry), SPARQL linked data functionality, document ingestion and document handling modules, basic text mining options, more advanced filtering possibilities. We did so in order to improve the filter, import and export functionalities and to enable the integration existing data collections into Nodegoat. Nodegoat has been adjusted in a tailor-made way taking into account the particular needs of all the partners of the project. This resulted in an overall significant improvement of Nodegoat as a data management system. At the request of TIC, lab 1100 has developed an **API** (Application programming interface) for Nodegoat which enables 'communication' with other databases and link data (2016). The development of an API was of crucial importance to publish our data as LOD (Linked Open Data) but it will also allow us to harvest external (semi-)structured information. In 2018 a module was developed to ingest (biographical) linked data and the existing SPARQL ingestion module will become semi-automated. Ghent University has also concluded an agreement with Nodegoat for a campus licence. Now, Nodegoat is used by several UGent researchers and to support the BA course "Historische datavisualisering". As a result of a CLARIAH-NL research pilot, the Nodegoat code will become open source by the end of 2018.

4.2. Data, collection and tools
The project has made an empirical contribution to the understanding of the transnational field of social and legal reform. We have collected information on ~ 1600 international congresses, ~ 5500 (inter)national organisations, ~ 23,000 publications and ~ 23,000 persons. We have carefully attributed topics to the congresses and organisations which enables researchers to search in our database for specific (sub)fields of social and legal reform. The added value in regard to the books of references on international congresses and organisations, is that we collected a large corpus of sources (more than 1200 documents, consisting of over 500,000 pages), which allowed us to correct and enrich the metadata. These sources are digitally scanned with OCR and that the metadata is also enriched with thematic categories. Therefore, researchers can both full text search the corpus, demarcate thematic sub-corpuora and do (basic) analysis. The relational database can be consulted via ANANSI as Open linked Data (5. dissemination and valorisation) and both the database and corpus can also be downloaded from the servers of Ghent University library. Due to several problems with Islandora, we did not succeed in integrating the database and the sources into one central observatory.

Our main asset is the relational links between congresses and organisations engendered by the co-memberships and the visitors they had in common. This allowed us to map the transnational networks between local, national and international organisations and congresses and to create a genealogy of social and legal causes. In order to do so, more than 23,000 persons were identified from the conference reports and other periodical publications of international organizations and additional biographical data was collected. For future research, this information is very useful to

identify and disambiguate so called "transnational lives", individuals who cross geographical, national, cultural and social boundaries and can therefore not be understood merely in the traditional framework of national history. Historians do usually not have much information on "transnational lives" because relevant sources are often geographically scattered and biographical dictionaries and portals generally have a bias towards national histories.

In addition to this, our project partner The State Archives have composed an inventory of the collection 'World fairs and international congresses', which contains 2500 pieces and 120 meter un-inventoried archival material. Depoortere and Vandeweyer (1994) made an inventory for the archives of the universal expositions organized in Belgium, 1880-1913 and Tallier (1999) composed a more general, but undetailed inventory for the collection. The State Archives have elaborated on this inventory, which can be consulted via https://search.arch.be/.

4.3. PhD Projects
PhD Simon Hengchen: ***When* Does it Mean? Detecting Semantic Change in Historical Texts**. (defended).

Simon's PhD focussed on two main points: can LDA ("topic modelling") tools be harnessed to semi-automatically detect semantic change, and can those tools be made easy enough for domain experts without a technical background to use.
To answer the first question – the main part of his PhD --, Simon tackled a historical dataset of Flemish newspapers from the region of Ghent, Vooruit, written in Dutch from Belgium. The method developed harnesses state-of-the-art algorithms in unsupervised Natural Language Processing (NLP), while giving a decisive, controlling role to the human (domain expert). By doing so, the method allows for the automatic tackling of huge datasets in a humanistically meaningful way, by introducing human knowledge in the process – something that was heavily lacking in the then state-of-the-art in computational lexical semantic change. With a tried-and-true result (the detection of a semantic change in Dutch from Belgium, a change that did not occur in Dutch from the Netherlands), Simon demonstrated that this new method seems to work, paving the way for additional research in this track.
The second question of his PhD, focussing on end-users and the applicability of the results of the first question, yielded less-enthusiastic results. This illustrates that further work is needed to make tools easier to use, something beyond the scope of Simon's PhD.

PhD Thomas D'haeninck: **Social reformers in search of a moral revival. A social historical and transnational study of the attendance of Belgians at international reform congresses, 1850-1914**. (defended).

Thomas' PhD is a social historical and transnational study of Belgian reformers in search of a moral revival. In the nineteenth century, reformers were searching for ways to deal with the social question. For many of them, this was more than a material improvement of the living conditions of the working class. They also had a moralising mission and wanted to uplift society. Already in the early part of the nineteenth century, the debate on the social question and moral reform went beyond local and national borders. International congresses played an important role in the establishment of transnational contacts between reformers and the cross-border circulation of ideas. Between 1840 and 1914, more than 1500 self-proclaimed 'international' or 'universal' meetings were

held on one or more aspects of the social issue. Historians consider these congresses as one of the most important manifestations of international cooperation in the nineteenth century. Until now, we only have fragmented knowledge of the Belgians who attended these reform congresses.

Thomas studied a large selection of almost 300 international conferences visited by over 7000 reformers originating from the Low Countries. By applying SNA techniques to this dataset, the complexity of thousands of congress visits could be reduced to significant trends. This relational and actor-centred approach allowed him to indicate changes in interest of Belgian reformers in social issues and the intertwinement of reform initiatives on an international level, to distinguish core from peripheral congresses and to demarcate generations of congress participants.

In this dissertation an answer is given to question why Belgian reformers attended international congresses and to what extent this contributed to their pursuit to uplift society morally. International congresses were – par excellence – the sites where reformers met and exchanged ideas on the social question, but also moments when social reformers gained credibility as social experts. Thomas demonstrated that the exchange of knowledge and reformers claiming expertise were two processes that went hand in hand and influenced each other.

In order to answer the research question in depth, Thomas studied what interest three Belgian reformers had in attending international reform congresses: Auguste Wagener, Emile de Laveleye and Amédée Visart de Bocarmé. He examined how they positioned themselves on both an international, national and local level. Did they contribute to the transnational circulation of ideas on the social question and moral reform? Did their attendance at international congresses acknowledge their expertise on the social question?

PhD Amandine Thiry: **Confinement as Social Utopia (1830-1914)**. "Belgian" reformers and transnational ideas on prison (to be defended).

The research of Amandine Thiry has articulated methodological and theoretical frameworks in order to challenge the official narrative of the Belgian prison reform. Seen as a major solution to the social question, the penitentiary system provoked vivid debates in the nineteenth century. Jurists, doctors, higher officials, architects, judges, statisticians, prison directors, civil servants and local notables together tried to formulate and implement the best possible prison system. Besides a handful of renowned "thinkers", an "army" of ordinary citizens engaged in major transformations of the Belgian prisons. More specifically, the prison staff was in a complex but favourable position, at the intersection of different fields.

In the first part of the PhD thesis, Amandine Thiry detected four cohorts (generations) of prison reformers between 1830 and 1914. Her definition of "prison reformer" considers three main groups in the sample: members of administrative committees, higher prison staff members and officials of the ministry of justice. Through a combined use of statistical methods (i.e. Social Network Analysis), she discussed a typology of trajectories. Reformer's mobility combined with the prestige they gained through publications, congress visits, and association memberships conferred a sort of "prison capital" upon them. The modulations and transformations of this "capital" from generation to generation is thoroughly examined.

In the second part of the thesis, chapters on recruitment and training of prison staff demonstrate how prison reform had to be constantly negotiated at several levels and by unexpected actors. The interactions between the numerous levels created a vacuum of power where the "subaltern" prison staff could take advantage. Methodologically, the traditional top-down perspective revealed indisputable limits for this study and was highly challenged by a view from inside the prison themselves (prison archives).

The last part of the thesis uses a case study. Serious scandals of corruption and the abolition of tobacco in 1842 and 1854 created power conflicts in the Belgian penitentiary landscape. These conflicts revealed even better the specific role of prison staff as an actor of change, both as an agent and as an object of reform.

PhD Lisa van Diem: **Discussing colonial hygiene: transnational networks on colonial hygiene between the 1880s and 1914 in a Dutch and Belgian context**

This project was not completed by the PhD-candidate. However, in additional to her contributions to the data and source collection, several research results were published as an article entitled ""'Les Indes africaines' versus 'Le Congo minotaure': debatten over klimaat, acclimatisatie, hygiëne en de idealisering van het imperiaal project van Leopold II in Congo, 1876-1908" (Co-authored by Jan Vandersmissen).[2] This article has come about as part of research that deals with the negotiation of colonial hygiene by "expert" actors in (transnational) networks with a focus on the Belgian context between the first Leopoldian expeditions in Central Africa in the late 1870s and the takeover of the Congo by the Belgian State in 1908. Colonial hygiene was a contested field of knowledge and practices wherein actors from different professional backgrounds aimed at improving public health in the colonies as a part of the exertion of colonial rule, including both medical and social measures. These actors discussed a wide range of issues in local, national, and transnational networks. This field, with its discussions, contributed to the enablement, legitimization, and reinforcement of colonial rule in various ways and domains.

Van Diem and Vandersmissen's research focuses on the involvement of actors in both the Belgian metropole and the Congo Free State in networks on colonial hygiene. They hypothesize that the Belgian actors were involved in (transnational) networks to get personal recognition as experts in the field, to broaden their own knowledge and to further the knowledge within the field, but also to promote Leopold's reputation as good colonial ruler. Colonial hygiene was an ambiguous component of that rule and of the "civilizing mission".

In their article, the researchers particularly focus on debates that connect climate, acclimatization, and hygiene with the contested idealization of the imperial project of Leopold II in Congo between 1876 and 1908. Climate, acclimatization and hygiene form the core of the debate on whether European expansion and colonization in the Congo Basin did have life chances. Proponents of Belgian interference in Congo spoke about the area in laudatory terms and referred to it with the expression "Les Indes africaines". Opponents mentioned "Le Congo minotaure", a monstrous country with a deadly climate. This view did not come out of the blue. During the earliest exploratory expeditions of the Association International Africaine (AIA) in Central Africa and also at the establishment of the

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[2] Jan Vandersmissen and Lisa Van Diem, "Les Indes africaines" versus "le Congo minotaure" : debatten over klimaat, acclimatisatie, hygiëne en de idealisering van het imperiaal project van Leopold II in Congo, 1876-1908 (finished, will be submitted to BTNG)

first stations in the area, many Europeans died. Many people in Belgium were convinced that the climate was harmful to their compatriots. The doom of Congo's murderous climate was persistent and influenced the Belgian public perception of Congo.

Hence, the researchers analyze the often conflicting views on and representations of the relationship between climate and health. Some of these views invite us to examine in detail the construction and handling of a set of Leopoldian ideals and ambitions. On the other hand, the strong images of a monstrous climate press us to look deeper into the expressions of criticism of Leopold's rule, and of Western distrust of the capacities of the hygienists in a colonial context.

4.4. Conferences, workshops and training

* **Digital approaches towards serial publications (18th–20th ct)** | Brussels (BE) | 11-12 September 2017

* **Tracing Mobilities Workshop** | Mons (BE) | 29 June - 1 July 2016

* **TIC International Workshop** | Lausanne (CH) | July 2015

* **Workshop Topic Modeling** | Ghent (BE) | 25 February 2015

* **Cosmobilities - Perspektiven, Herausforderungen, Synergien** | Mainz (DE) | 23-24 January 2015

* **Historical Network Research / HNR 2014 conference** | Ghent (BE) | 15-19 September 2014

* **The Transnational Challenge: Tracing Networks across borders (workshop)** | Maastricht (NL) | 27 June 2014

More information about the workshops and colloquia can be found in the annexes.

4.5. Recommendations
In the following section we provide an overview of the key recommendations from the TIC-project.

4.5.1. Recommendations VRE
Our recommendations:

1) The development of a VRE is an ongoing process in need of thoughtful reflection and broad dialogue with all project partners.
2) VREs must serve the needs of its users and should thus learn from the practices and progressive insights that result from its users.
3) VREs need to be flexible and customizable. We advise a modular and distributed approach.
4) The development of VREs must be considered as opportunities for community building. Collaboration is not only efficient, but also fosters the 'co-ownership' of the tools and stimulates the motivation for their take-up and use.
5) Data needs to be published in a step by step approach, ideally as part of a data management plan based on the FAIR (Findable, Accessible, Interoperable and Re-useable) principles of research data management.

VREs enhance collaboration between researchers, but we learned that they also highly depend on the **input of** its **users**. We experienced that the development of a VRE can be long-lasting and be accompanied by setbacks. It is however, first and foremost, an ongoing process in need of thoughtful reflection and continuous dialogue with all project partners. The project made a lot of progress once the **beta version** of the digital infrastructure was made available and a large dataset about internationalists engaged in social reform and an extensive body of sources were shared. By using the VRE, both infrastructural shortcomings were detected as well as the potential of the platform was experienced first hand by the researchers. These two processes influence each other and stimulate both the development and **improvement** of the VRE's **functionalities**, the **contributions** to the data and source collection, as well as **individual and collaborative research**.

VREs should be user-driven, tailor-made, adaptable and interoperable. VREs are "tailored to serve the needs of a community of practice" (Candela, Castelli, and Pagano 2013: GRDI75) and should thus **learn from the practices** and progressive insights that result from its users. As such, the **development** of a VRE needs to be seen as a process that **does not stop** until after the researchers have finished their research, and is ideally is part of a long-term and sustainable infrastructural initiative, such as DARIAH. We can confirm that a **one-size-fits-all approach does not work**; VREs need to be flexible and customizable, and to integrate a variety of tools and components (Voss and Procter 2009: 176; Carusi and Reimer 2010: 5; Buddenbohm et al. 2015). Therefore, a modular and distributed approach must be followed instead of offering all-encompassing virtual research environments that over-determine research processes and drive potential users away. TIC provided both **generic** functionalities as well as very specific services and solutions aimed at research projects. Needless to say that **collaboration**, **communication** and active **participation** of all project partners and researchers is vital and should strongly be stimulated at every step of the research workflow. Therefore, VREs should guarantee security, authentication, and ownership (Candela, Castelli, and Pagano 2013: GRDI76) and as we learned from our experience, and well as a **smooth** and **well functioning** digital working environment.

The **development** of **VRE's** in particular, and collaborative digital research projects in general, should be considered as **opportunities for community building,** connecting both researchers (with various disciplinary backgrounds) as well as developers and archivists. Collaboration beyond the national and disciplinary borders is seen as one of the main challenges addressed by VREs (ACLS 2006: 35; Voss and Procter 2009: 175; Yang and Allan 2010: 66; Carusi and Reimer 2010: 12; Anderson and Blanke 2012: 154; Candela, Castelli and Pagano 2013: GRDI78; Dovey 2015: 47). However, we argue that this challenge also offers **opportunities**. Gaining expertise and developing knowhow, calculating costs for infrastructural developments, organizing training and workshops and valorising the collected data and sources should not only be seen within the perspective of the project but also in **collaboration** with others and thus stimulating the digital research community. This is not only efficient, but also fosters the 'co-ownership' of the tools and stimulates the motivation for their take-up and use. That is why TIC-collaborative has maintained close relations with **DARIAH** (Digital Research Infrastructure for the Arts and Humanities), which aims to enhance and support digitally-enabled research across the humanities. As a result of this collaboration, TIC and DARIAH have organized a meeting between all major users of Nodegoat (see: workshop "Tracing mobilities") which can be seen as a major stimulus for the development of a "Nodegoat community". The current status of Nodegoat and upcoming new features were discussed and best practices and experiences were exchanged. All of the training and **workshops** organised by TIC-collaborative were open to all interested researchers

beyond the project. The **data** and **sources** collected are being published in the open linked data environment ANANSI and are made available for researchers via the Ghent University Library.

The **conservation** and **valorisation** of the data and sources collected within TIC has been considered as a major concern for the project. As outlined in the following section below, the data is mainly published via ANANSI as linked open data. We are doing this gradually in order to clearly describe our datasets and give the data a final quality check. We are convinced that this **step by step approach** is vital for a well thought-out valorisation of the data. It is important that each **subset** of the collection is accompanied by a detailed **colophon**, so that future researchers know how the information was obtained, which sources were consulted, which criteria were applied, etc. The **authorship** and related intellectual property of the published data belongs to both the project and the individual researchers who contributed to the collection of the information, who remain responsible for its quality and accuracy. More information about the published data can be found in *"5. dissemination and valorisation"*. The data collected by the PhD-students and affiliated researchers will be published once their projects are finished. Now that the TIC-collaborative project is finished, the long-term and sustained maintenance of the relational dataset has been taken over by the *Amsab*-Institute of Social History, as a core part of their collections.

4.5.2. Survey on text management platforms

The survey can be consulted here.

4.5.3. Recommendations for the ongoing management of TIC-dataset

Currently, there is a lack of infrastructure for managing humanities research data in Belgium (Mertens et al. 2018). The development of our data publication strategy and LOD must be considered as a good step forward and provides the key elements for future Data Management Plans (DMPs) for future projects that collect their data in Nodegoat. ANANSI guarantees sustainable storage of relational data and improves the accessibility. ANANSI is far-out the best performing infrastructure that can be adjusted in a tailor-made way taking into account the particularity of datasets that characterizes research in the humanities. Due however to technical constraints, linking across subsets is still largely a manual exercise. We have taken action to improve this. The workflow and the semi-automated mapping of the different "vocabularies" that are being used has been enhanced. However, much still needs to be improved. Currently, the schema.org vocabulary is used extensively as an ontology for the mapping of the TIC data that is managed in Nodegoat to linked datasets in ANANSI. This vocabulary is unfortunately not a perfect fit to the particularity of the design of Nodegoat data models. A better fitting vocabulary will need to be created to match all particularities of each of the subsets of the TIC data. This will not only enable us to publish all of TIC's data as LOD, but this will also facilitate the publication as Linked Open Data of other projects using Nodegoat (like WeChangEd, Pyramids and progress, ERNIE, NISE, etc.).

5. DISSEMINATION AND VALORISATION:

5.1. Data publication strategy

The data that was collected in the TIC-collaborative project is being disseminated via ANANSI, a open linked data environment, and made available for everyone, seeing as we endorse as far as possible the Open Access and Open Science movements. (see: 4. scientific results and recommendations). We have collected information on ~ 1600 international congresses, 5500 (inter)national organisations, 22,000 publications and 23,000 persons.

We are publishing this data gradually, as a result of a publication or a finished project. A published subset is accompanied by a detailed colophon, indicating how the information was obtained, which sources were consulted, which criteria were applied, how the data was enriched, etc., and one or more authors are credited for their efforts collecting the information. As all the data was collected in a collaborative VRE, subsets must be seen as a results of a process of co-creation and part of an overarching dataset. ANANSI enables scholars both to explore individual subsets as well as to connect between different subsets. Each published subset thus clearly reflects both its own particular research context as well as its links to other subsets and the overarching project.
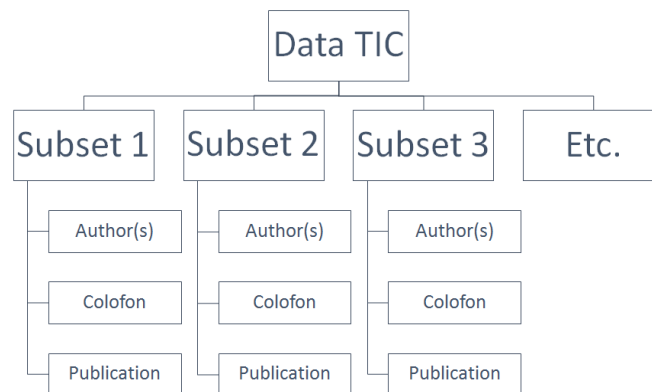

Figure 1: data publication strategy TIC

In addition to this extensive dataset, we have collected a large corpus of sources (more than 1200 documents, consisting of over 500,000 pages). These sources are digitally scanned with OCR and that the metadata is also enriched with thematic categories. Therefore, we can both search the full text of the corpus and do (basic) analysis. The corpus of sources, mostly congress proceedings, will be made available for researchers via the Ghent University Library.

5.2. Linked open Data

In the pilot project 2TBI (2018) we have used a small part of our dataset to test the potential of the Open linked Data environment ANANSI. ANANSI, a Timbuctoo implementation, is the central data connection between the three primary CLARIAH domains (Linguistics, Social & Economical History and Media Studies). The Timbuctoo system is developed by the Huygens Institute for the History of the Netherlands (Huygens ING). Timbuctoo is an innovative Linked Open Data infrastructure for analysing, sharing, connecting and enriching arts and humanities data. The repository system is specifically designed for academic research in the humanities, which often yields complex and heterogeneous data. It lives up to academic standards for working with such content: the infrastructure accommodates different views on a subject and leaves the interpretation of the data

to the researcher. Also, Timbuctoo keeps meticulous track of data provenance and does not impose a specific research methodology on its users. Data can be searched and analysed through the web interface. Partner institutions and scholars can upload their own datasets and enrich them by linking up with the data already available in the system. They can create custom-built front-ends to analyse or visualise their dataset. Huygens ING welcomes other implementations of Timbuctoo: the software is open source, licensed under the GNU General Public License (v3).

ANANSI facilitates the connectivity of structured (meta-)data served by the research infrastructures constructed in these domains. Furthermore, ANANSI integrates data with large scale existing data infrastructures outside CLARIAH - both within and outside the humanities. The results from the pilot were positive, which made us decide to publish all other TIC-data in ANANSI. In addition to the 2TBI pilot, we have also published all the data that we have collected on the international organisations, the international congresses and the metadata on the congress proceedings in ANANSI. TIC uses Nodegoat as its work environment and ANANSI to publish the data as LOD. Our project has both a work environment (Nodegoat) that can be fully designed to the needs of the researcher as well as a linked data environment which enables scholars to link and publish their datasets (ANANSI).

Researchers using linked open data almost always have to cope with ambiguities and misrepresentation. Additionally, identification of person names and references to individuals is often difficult because of name variations, titles, nicknames, pseudonyms, and differences in language. Resolving and disambiguating such person entities requires the creation of a broader and more general reference than the existing standards. To a certain extent, the data collected in the TIC-collaborative project does provide this for the study of social reformers active in transnational networks in general and Belgian and Dutchmen in particular. By linking our data to other, relevant datasets, we can increase this already valuable asset.

5.3. Collection of sources

The corpus of sources collected in the TIC-project, mostly congress proceedings, is available for researchers via the Ghent University Library. The corpus is downloadable as pdf's (with OCR) for Ghent University staff as well as full text searchable in a **text platform** provided and developed by the Ghent University Library. The text platform will make use of fully functioning applications that were used in the [Vooruit](#) project and [Recollecting landscapes](#). In this text platform, the sources can be explored as zoomable images (IIIF) as well as via basic full text search queries. Additionally, the metadata (including topics) will be used as a faceted classification system, allowing users to explore the collection by applying multiple filters. Via faceted searches, scholars will be able to demarcate sub-corpora within the TIC-corpus, which can be downloaded (both as images and as text files) and explored via the functions of the text platform. Researchers who are interested in certain lemmas in our dataset can, via the text platform, easily search in the original sources. We believe that this connection between the original sources and the relational database is a major asset of the project. For now, no direct link between the text platform and the relational database has been made as yet. However, we hope that this will developed in the future. This will bring more analytical possibilities to the text platform (e.g. facilitate Named Entity Recognition analysis).

6. PUBLICATIONS

2019 and under review

Daniel Laqua, Wouter Van Acker, and Christophe Verbruggen, eds. *International Organizations and Global Civil Society : Histories of the Union of International Associations* (London: Bloomsbury, 2019). In print, with contributions of TIC investigators Nico Randeraad, Christophe Verbruggen et al.

Digital Approaches Towards Serial Publications (18th - 20th centuries), Special issue *Journal of European periodical studies.*

Jan Vandersmissen and Lisa Van Diem, "Les Indes africaines" versus "le Congo minotaure": debatten over klimaat, acclimatisatie, hygiëne en de idealisering van het imperiaal project van Leopold II in Congo, 1876-1908 (under review).

Florian De Roo, "Reformers across Empire: The Webbs and the Arya Samajin" (under review).

Christophe Verbruggen and Florian De Roo, 'Towards an entangled intellectual 'reform' consciousness in India and Western-Europe, 1900-1930' (in preparation).

Thomas D'haeninck, Joke Daems, Tecle Zere, Simon Hengchen and Christophe Verbruggen, "Workers of the world", *Digital Approaches Towards Serial Publications (18th - 20th centuries), Special issue Journal of European periodical studies*, forthcoming.

2018

Amandine Thiry, Thomas D'haeninck and Christophe Verbruggen, "Educational internationalism in Belgium, 1850-1914," in *The Civilising Offensive. New perspectives on social and educational reform in 19th-century Belgium*, ed. Christophe De Spiegeleer (Berlin: De Gruyter-Oldenbourg, 2018), forthcoming.

Thomas D'haeninck, "The intellectual mobility of Auguste Wagener (1829-1896) in a transnational network of social reform. A cross-border history," in *The Civilising Offensive. New perspectives on social and educational reform in 19th-century Belgium*, ed. Christophe De Spiegeleer (Berlin: De Gruyter-Oldenbourg, 2018), forthcoming.

Thomas D'haeninck, Jan Vandersmissen, Gita Deneckere and Christophe Verbruggen, "Public health, hygiene and social activism in and beyond Belgium," in *Medical Histories of Belgium (19th and 20th century)*, ed. Joris Vandendriessche and Benoît Majerus (Manchester: Manchester University Press, 2018), forthcoming.

Thomas D'haeninck, "Writing Letters: Emile De Laveleye's correspondence network," in *Unhinging the National Framework: Perspectives on Transnational Life-Writing*, ed. Babs Boter, Marleen Rensen and Giles Scott-Smith (Leiden: Sidestone Press, 2018), forthcoming.

Christophe Verbruggen, Thomas D'haeninck and Hans Blomme, "Mobility and Movements in Intellectual History: a Social Network Approach," in *The Power of Networks. Prospects of Historical*

Network Research, ed. Florian Kerschbaumer, Linda Von Keyserlingk, Martin Stark and Marten Düring (Abingdon: Routledge Publishers, 2018), forthcoming.

2017

Simon Hengchen, "When Does it Mean? Detecting Semantic Change in Historical Texts" (PhD diss., Université libre de Bruxelles, 2017).

Chris Leonards and Nico Randeraad, "Going Places. French, Swiss, British and American Visitors to International Social Reform Congresses, 1876-1913," in *Philanthropes en 1900 (Londres, New York, Genève)*, ed. Stéphane Baciocchi, Thomas David and Christian Topalov (Ivry-sur-Seine: Creaphis éditions, 2017), forthcoming.

Max De Wilde and Simon Hengchen, "Semantic Enrichment of a Multilingual Archive with Linked Open Data," *Digital Humanities Quarterly* 11 no. 4 (2017).

Anne Chardonnens and Simon Hengchen, "Text Mining for User Query Analysis: A 5-Step Method for Cultural Heritage Institutions," in *Proceedings of the 15th International Symposium on Information Science (ISI 2017); Berlin, Germany, 13th—15th March 2017: Everything Changes, Everything Stays the Same? Understanding Information Spaces*, ed. Maria Gäde, Violeta Trkulja and Vivien Petras (2017), 177-189.

2016

Amandine Thiry, Amandine Dumont, Xavier Rousseaux and Jonas Campion, *Mons dans la tourmente. Justice et société à l'épreuve des Guerres mondiales (1914-1961)* (Louvain-la-Neuve: Presses Universitaires de Louvain/ Mons Memorial Museum, 2016).

Clément Bourguignon, Amandine Dumont and Amandine Thiry, "'Une infime poignée de traîtres'? La répression de la collaboration des mineurs d'âge dans l'arrondissement judiciaire de Mons (1944-1948)," in *Mons dans la tourmente. Justice et société à l'épreuve des Guerres mondiales (1914-1961)*, ed. Amandine Thiry, Amandine Dumont, Xavier Rousseaux and Jonas Campion (Louvain-la-Neuve: Presses Universitaires de Louvain/ Mons Memorial Museum, 2016), 159-183.

Jonas Campion, Xavier Rousseaux, Amandine Thiry and Amandine Dumont, Amandine, "Introduction," in *Mons dans la tourmente. Justice et société à l'épreuve des Guerres mondiales (1914-1961)*, ed. Amandine Thiry, Amandine Dumont, Xavier Rousseaux and Jonas Campion (Louvain-la-Neuve: Presses Universitaires de Louvain/ Mons Memorial Museum, 2016), 9-13.

Amandine Thiry, "Les homicides attribués à la "résistance" dans l'arrondissement de Mons (avril 1943-novembre 1944)," in *Mons dans la tourmente. Justice et société à l'épreuve des Guerres mondiales (1914-1961)*, ed. Amandine Thiry, Amandine Dumont, Xavier Rousseaux and Jonas Campion (Louvain-la-Neuve: Presses Universitaires de Louvain/ Mons Memorial Museum, 2016), 101-130.

Seth Van Hooland, Florence Gillet, Simon Hengchen and Max De Wilde, *Introduction aux humanités numériques: Méthodes et pratiques* (Antwerpen: De Boeck, 2016).

Margot Waty, Seth van Hooland, Simon Hengchen, Mathias Coeckelbergs, Max De Wilde and Jean-Michel Decroly, "How hot is .brussels?: Analysis of the uptake of the brussels top-level domain name extension," *Brussels studies* (2016).

Simon Hengchen, Mathias Coeckelbergs, Seth Van Hooland, Ruben Verborgh and Thomas Steiner, "Exploring archives with probabilistic models: Topic Modelling for the valorisation of digitised archives of the European Commission," in *IEEE Proceedings of the First Workshop on Computational Archival Science. IEEE*, ed. (2016).

Simon Hengchen, Alexander O'Connor, Gary Munnelly, Jennifer Edmond and Long Room Hub, "Comparing Topic Model Stability across Language and Size," In *Proceedings of the Japanese Association for Digital Humanities Conference 2016* (2016).

Thomas D'haeninck, Amandine Thiry, and Lisa van Diem. 2016. "Hervormers En De Sociale Kwestie Tijdens De Negentiende Eeuw." *Contemporanea* 1 no. 4 (2016).

2015

Chris Leonards, "Visitors to the International Penitentiary Congress. A Transnational Platform Dealing with Penitentiary Care," *Österreichische Zeitschrift für Geschichtswissenschaften* 26, no. 3 (2015): 80-102.

Nico Randeraad, "Triggers of Mobility: International Congresses (1840–1914) and their Visitors," in *Mobility and Biography, European History Yearbook*, ed. Margit Szöllösi-Janze, Sarah Panter and Johannes Paulmann (Berlin: De Gruyter, 2015), 63-82.

Chris Leonards and Nico Randeraad, "Building a transnational network of social reform in the 19th century," in *Shaping the Transnational Sphere. Experts, Networks and Issues from the 1840s to the 1930s,* ed. Davide Rodogno, Bernhard Struck and Jakob Vogel (Oxford; New York: Berghahn Books, 2015), 111–131.

Amandine Thiry, *"Le tribut des temps troubles". La justice face aux homicides attribués à la "résistance" dans l'arrondissement judiciaire de Mons (avril 1943-novembre 1944) (Histoire, justice, sociétés)* (Louvain-la-Neuve: Presses universitaires de Louvain, 2015).

Thomas D'haeninck, Nico Randeraad and Christophe Verbruggen, "Visualizing Longitudinal Data: Rooted Cosmopolitans in the Low Countries, 1850-1914," in *CEUR Workshop Proceedings*, ed. Serge ter Braake, Antske Fokkens, Ronald Sluijter and Thierry Declerck, no. 1399 (First Conference on Biographical Data in a Digital World 2015, CEUR WS, 2015), 116–21.

Simon Hengchen, Seth Van Hooland, Ruben Verborgh and Max De Wilde, "L'extraction d'entités nommées : une opportunité pour le secteur culturel ?", *I2D Information, données & documents* 52, no. 2 (2015): 70-79.

Thomas D'haeninck, "Engagement En Kunstenaarschap: Geschiedschrijving over Kunst En Literatuur in De Negentiende Eeuw", *Mededelingenblad van de Belgische vereniging voor nieuwste geschiedenis* 37, no. 1 (2015): 8-11.

7. ACKNOWLEDGEMENTS

Project partners

- **Ghent University** Research Unit Social History since 1750 | Ghent Centre for Digital Humanities (coordination prof. dr. Christophe Verbruggen)
- **Maastricht University** (prof. dr. Nico Randeraad)
- **Université Catholique Louvain** Centre d'histoire du droit et de la justice (prof. dr. Xavier Rousseaux)
- **Université libre de Bruxelles** ReSIC- Research Center in Information and Communication (prof. dr. Seth Van Hooland)
- **State Archives** (prof.dr. Karel Velle)

International partners

- **University of Lausanne** Switzerland (Thomas David)
- **Northumbria University** UK (Daniel Laqua, 'Histories of Activism' research group)
- **University of Mainz** Germany (J. Paulmann, Leibniz-Institute für Europäische Geschichte)
- **Ecole des Hautes Etudes en Sciences Sociales** Paris (Christian Topalov)
- **Université Catholique Louvain** Belgium (Centre d'histoire du droit et de la justice, prof. dr. Xavier Rousseaux)
- **Université Laval** Canada (Pierre-Yves Saunier)

Collaboration

- AMSAB Institute of Social History
- CLARIAH-NL
- DARIAH-BE
- Ghent University Library
- LAB 1100
- Mundaneum
- Royal Library of Belgium

8. ANNEXES

Annex 1

Digital approaches towards serial publications (18th–20th century)
Brussels, Royal Academy, 11-12 September 2017.

The past few years have seen an increasing interest in Natural Language Processing and other text-mining techniques in the humanities. This tendency has been sparked by the *distant reading* approaches for literary theory, which aim to draw general conclusions on larger amounts of text using computational techniques. This way of tackling data has gained momentum, and many (large scale) projects have been set up in order to meet the expectations of humanities scholars wanting to make sense of the vast amount of digitised data that has become available in public domain, primarily, 18th and 19th but also 20th century publications. For some time NLP has been mainly used for the confirmation of existing historical knowledge, but now many techniques and tools have become more mature, it is time to draw an intermediary balance of NLP and text mining in general and the mining of serial publications in particular. Moreover, it also time to question the phenomenon of 'scientific serendipity' and NLP as a set of technologies enabling such serendipity.

We intend to bring together humanists, social scientists and computational scientists who have been working with historical serial texts and/or periodicals: including newspapers, journals, book series, congress series, etc. We are mainly interested in reflections upon completed case-studies: the research results compared to the initial expectations, examples of the phenomenon of 'scientific serendipity', the theoretical and heuristical implications of the choices made during the research process, comparisons between NLP and other methods such as Semantic Network Analysis. Last but not least, we welcome reflections on graphical approaches to text corpora, such as visualisation methods that are en vogue for exploratory searching, analysis and communication of textual analysis. From n-grams through tree diagrams to word clouds: what are the epistemological implications of using graphic displays developed outside the humanities?

We welcome contributions dealing with current issues in fields ranging from socio-cultural history and history of ideas to literary studies. Librarians, archivists and policy makers will be invited for a roundtable to discuss their policy towards opening up digital collections.

The contributors to the workshop will be asked to submit a working paper one week before the date of the workshop, in order to foster a discussion between the participants and to prepare the work on an edited volume published with an international publisher.

We invite submissions of short abstracts, in English (maximum 200 words) for papers of 20 minutes by 14 March 2017 (to be sent to christophe.verbruggen@ugent.be and shengche@ulb.ac.be). Acceptances will be notified by the end of March.

Confirmed participants: Michael Piotrowski (Université de Lausanne), Eva Pettersson (Uppsala University) and Mikko Tolonen (University of Helsinki).

Scientific committee: Sally Chambers (Ghent University), Steven Claeyssens (Royal Library Netherlands), Simon Hengchen (Université libre de Bruxelles), Mike Kestemont (Antwerp University), Frédéric Lemmers (Royal Library of Belgium), Seth van Hooland (Université libre de Bruxelles),

Marianne Van Remoortel (Ghent University), Joris Van Eijnatten (Utrecht University), Charles Van den Heuvel (University of Amsterdam), Christophe Verbruggen (Ghent University).

Sponsored by: [TIC Collaborative](#) (Belspo-Brain), [Research Com-munity Digi-tal Humani-ties Flan-ders](#) (FWO), [DARIAH-VL](#) (FWO), [ReSIC ULB](#) and Ghent Centre for Digital Humanities.

Annex 2

Tracing Mobilities Workshop

In this workshop organized by TIC Belgium, we will explore to what extent the notion of 'mobility' in current cultural and social theory (eg. Stephen Greenblatt, John Urry) can be fruitfully applied in historical research. Mobilities can be seen as **cross-border movements of persons, objects, texts and ideas**. How can we grasp mobility of people and ideas in the spheres of politics, learning and the arts? Within this context, we focus on the involvement of social, legal and educational reformers and other kinds of socio-political activists in (temporary) transnational intellectual networks on the one hand and their activities at home on the other. The conceptualization of intermediary persons as 'rooted cosmopolitans' (Sidney Tarrow), 'mobilizers' (Greenblatt) and 'contact zones' seem promising notions to unravel mobilities. The focus of the workshop is on European reformers and activists, but this does not mean that it is restricted to the European continent, as a lot of European nation states had colonies and cross-border cooperation and mobilities focused on colonial knowledge and governance took place in Europe as well as in the colonies themselves.

In this workshop PhD students will explore the notions of mobility and activism by presenting clear cut case studies. Participants will also reflect on methodological issues, for instance the usage of text mining, social network analysis and data visualization techniques in the humanities and social sciences.

Keynotes

·   Prof. dr. Christian Topalov – *Ecole des hautes études en sciences sociales (EHESS)*

·   dr. Kenneth Bertrams – *Research Unit Modern and Contemporary Worlds (ULB)*

·   dr. Wolf Feuerhahn – *Centre Alexandre Koyré (EHESS)*

·   dr. Damiano Matasci – *Université de Genève*

·   dr. Sarah Panter – *Leibniz-Institut für Europäische Geschichte (IEG) Mainz*

Annex 3

The Transnational Dynamics of Social Reform Meeting: Follow the Actors.

Lausanne 2nd July 2015

(room 4799, Géopolis)

9:00-10:00 Report on activities, publications etc. on the past year.

10:00-11:00 Future activities (additional funding and conferences)

11:00-11:15 Coffee break

Presentations of current research and discussion (20 minutes presentation and 30 minutes discussion)

11h15-12:05 Sarah Panter, *Cosmotool - A digital pathfinder for analyzing transnational lives?*

12:05-12:55 Pierre-Yves Saunier, *The unpresentation: what could and should be done about Rockefeller individual awards for nurses (1915-1976)?*

13:00-14:00 Lunch

14:00- 14:50 Daniel Laqua, *An Education in Internationalism: Students and Intellectual Cooperation in the Interwar Years*

14:50-15:40 Nico Randeraad and Chris Leonards, *Social Reform in a Transnational Perspective: People, Congresses, Organizations, 1876-1914*

15:40-16:00 Coffee break

16:00-16:50 Thomas David and Alix Heiniger, *Maping Geneva Philanthropists around 1900*

16:50-17:40 Alix Heiniger and Christian Topalov, *Men and Women in Charities (New York, Paris and Geneva around 1900)*

Annex 4

Topic Modelling Workshop

Topic modelling is a way of exploring large textual corpora. A 'topic' is a cluster of words that frequently occur together. With the help of contextual clues, 'topic models' can be created, by connecting words with similar meanings. The aim of the workshop is to gain an insight into using topic modelling and related methods, to understand what kind of results can be expected and how they can be interpreted. The workshop will use practical examples to demonstrate how to put together a suitable digital corpus for processed using Mallet (http://mallet.cs.umass.edu/) and how the results can be analysed.

Programme

11:00 – 12:30

Welcome and introduction by Prof. Dr. **Christophe Verbruggen** (Ghent University)

Topic Modelling: a general introduction and positioning within humanities research

by Prof. Dr. **Charles van den Heuvel** (University of Amsterdam / Huygens Institute for the history of The Netherlands)

Sandwich lunch

13:30 – 16:30

Mallet: a hands-on introduction by Dr. **Marijn Koolen**. (University of Amsterdam)

Prior knowledge

No specific prior knowledge is required. Participants are asked to bring their own computer and to install Mallet before the workshop. More information about how to install Mallet (for Mac and Windows) is available at: http://programminghistorian.org/lessons/topic-modeling-and-mallet.

Language: The language of the workshop is Dutch.

Registration is via https://tokyoap2.ugent.be/eventManager/events/topicmodeling. Places are limited.

Organisation: Ghent Center for Digital Humanities in cooperation with the Research Unit Social History since 1750 and the Library Lab from the Faculty Library of Arts and Philosophy.

Further information: sally.chambers@ugent.be.

Topic modelling is a way of exploring large textual corpora. A 'topic' is a cluster of words that frequently occur together. With the help of contextual clues, 'topic models' can be created, by connecting words with similar meanings. The aim of the workshop is to gain an insight into using topic modelling and related methods, to understand what kind of results can be expected and how they can be interpreted. The workshop will use practical examples to demonstrate how to put together a suitable digital corpus for processed using Mallet (http://mallet.cs.umass.edu/) and how the results can be analysed. This workshop is organised by the Ghent Centre for Digital Humanities in

cooperation with the Research Unit Social History since 1750 and the Library Lab from the Faculty Library of Arts and Philosophy.

Annex 5

Programm, Stand: 15. Dezember 2014

»Cosmobilities« –

Perspektiven, Herausforderungen, Synergien

(Veranstaltungsort: IEG, Alte Universitätsstraße 19, Konferenzraum, 1. OG)

23.-24. Januar 2015

23. Januar 2015

ab 13.30 Uhr Mittagsimbiss

14.15-14.30 Uhr

- Begrüßung und Einführung (*Johannes Paulmann/Mainz; Margit Szöllösi-Janze/München*)

14.30-15.30 Uhr Geschichtswissenschaften und *Digital Humanities*

- »Cosmobilities« – Neue Impulse für die Erforschung grenzüberschreitender Lebensläufe im 19. Jahrhundert? (*Sarah Panter/Mainz*)

- »Cosmobilities« als DARIAH-DE-»Use Case« (*Michael Piotrowski/Mainz; Tobias Gradl/ Bamberg*)

15.30-16.00 Uhr Kaffeepause

16.00-17.00 Uhr Mehrsprachigkeit und nationale Zugehörigkeiten

- Das Historische Lexikon der Schweiz (*Marco Jorio/Bern*)
- Das Bibliographieportal zur Geschichte Ostmitteleuropas des Herder-Instituts (*Jürgen Warmbrunn/Marburg*)

19.00 Uhr Gemeinsames Abendessen (Heiliggeist, Mailandsgasse 11)

24. Januar 2015

9.30-10.30 Uhr Netzwerke und Gruppenbindungen

- Geneva's Philanthropists around 1900: A Field made of Distinctive but Interconnected Social Groups (*Alix Heiniger* und *Thomas David /Lausanne*)
- The Transnational Dynamics of Social Reform (*Nico Randeraad/Maastricht*)

10.30-11.00 Uhr Kaffeepause

11.00-12.30 Uhr Netzwerke und Transnationalisierung

- Das europäische Agentennetzwerk der Rothschilds: ein Einblick in die Praxis (*Rainer Liedtke/Regensburg*)
- Immigrant Entrepreneurship: German-American Business Biographies (*Uwe Spiekermann/ Washington, D.C.*)
- Netzwerkanalyse und familienbiographischer Ansatz – das Fallbeispiel Thyssen (*Simone Derix/Mainz*)

12.30-13.30 Uhr Abschlussdiskussion: Herausforderungen und Perspektiven

13.30 Uhr Mittagsimbiss

Referentinnen/Referenten:

Prof. Dr. Margit Szöllösi-Janze, LMU München

Prof. Dr. Johannes Paulmann, IEG

PD Dr. Simone Derix, IEG

Dr.-Ing. Michael Piotrowski, IEG

Dr. Sarah Panter, IEG

Prof. Dr. Rainer Liedtke, Regensburg

Prof. Dr. Thomas David, Lausanne

PD Dr. Uwe Spiekermann, DHI Washington

Dr. Jürgen Warmbrunn, Marburg

Dr. Marco Jorio, Bern

Dr. Nico Randeraad, Maastricht

Dr. Alix Heiniger, Lausanne

Tobias Gradl, M.Sc., Bamberg

<u>Zusätzlich eingeladene Teilnehmerinnen/Teilnehmer:</u>

PD Dr. Christopher Voigt-Goy, IEG

Dr. Bernhard Gißibl, IEG

Dr. Joachim Berger (Forschungskoordinator), IEG

Anna Aurast, M.A., IEG

Prof. Dr. Thomas Saalfeld, Bamberg

Jun.-Prof. Dr. Gesa zur Nieden, JGU Mainz

Dr. Thomas Suermann, Fritz Thyssen Stiftung

Annex 6

www.ugent.be/hnr2014
hnr2014@ugent.be

HNR 2014
Historical Network Research Conference

Ghent (Belgium) | 15 - 19 September 2014

The Historical Network Research Conference (HNR) 2014 brings together scholars from all historical disciplines, social scientists, geographers and computer scientists to discuss the emerging field of historical Social Network Analysis. The conference (September 17-19) includes sessions on various topics with papers from ancient to contemporary history, as well as poster presentations and demonstrations. A series of pre-conference workshops (September 15-17) will provide practical skills and knowledge.

Monday 15 September

14:00-17:00:
A general introduction in SNA: the main concepts and the basic techniques of social network analysis.
Martin Stark (University of Hamburg)
UniversiteitsForum - Jan Dhondtzaal (2nd floor)

Tuesday 16 September

10:00-13:00:
Preparing your dataset for network analysis: a general introduction.
Mark Depauw, Yanne Broux and Silke Van Beselaere (KUL)
Rozier-Plateau - PC room E

From text interpretation to data to networks: a two part workshop on data extraction and visualization of historical sources.
Marten Düring (Centre Virtuel de la Connaissance de l'Europe)
Rozier-Plateau - PC room F

14:00-17:00:
Extract, disambiguate, link: enriching your unstructured (meta-) data with Open Refine.
Seth Van Hooland, Max De Wilde and Simon Hengchen (ULB)
Rozier-Plateau - PC room D

Gephi data modeling and network visualisation, 1.
Clement Levallois (EMLYON Business School)
Rozier-Plateau - PC room E

An introduction to social network analysis with UCINET, 1.
Bruce Cronin (University of Greenwich)
Rozier-Plateau - PC room F

Wednesday 17 September

10:00-13:00 | 14-00-17:00:
Gephi data modeling and network visualisation, 2 and 3.
Clement Levallois (EMLYON Business School)
Rozier-Plateau - PC room E

An introduction to social network analysis with UCINET, 2 and 3
Bruce Cronin (University of Greenwich)
Rozier-Plateau - PC room F

19:00-21:30:
Public **opening lecture:** Taking time seriously. How do we deal with change in historical networks?
Claire Lemercier (Sciences Po, Paris)
+ Reception
STAM (Ghent City Museum)

Thursday 18 September:

09:30-10:20:
Keynote: The Social Networks of Socrates: Innovation and Social Learning.
Diane Cline (George Washington University)

10:45-12:45:
Session a: Historical Demography
Dynamics of Marriage Networks and processes of Social Closure in a rural community in the 19th Century.
Martin Stark (University of Hamburg) and *Matthias Bixler* (University of Bremen)

Settler strategies. Social networks in New Amsterdam and Cape Town in the second half of the seventeenth century.
Maarten Van Dijck (Erasmus University Rotterdam)

Integrating Historical Census Data in the Semantic Web.
Albert Meroño-Peñuela (VU University Amsterdam) and *Ashkan Ashkpour* (Erasmus University Rotterdam)

Networks and patronage: Greek and Turkish migrants in Belgium.
Katerina Seraïdari (Centre d'Anthropologie Sociale, Toulouse)

Session b: History of Science
Mapping a Profession: German Historians in the Mirror of their Conferences.
Daniel Burckhardt (Humboldt University of Berlin)

Mathematics at Stake: the Socio-Cultural Dynamics of the Statistical Field in Germany, c.1890-1935.
Jochen Mayer (University of Edinbugh)

Mapping Geopolitics of Knowledge: The Diffusion of American Studies in Europe 1945-65.
Ida Jahr (University of Oslo, Norway)

The burgeoning field of international history of science journals, 1913-1930. A network-analytical exploration.
Christophe Verbruggen, Raf Vanderstraeten (Ghent University) and *Lewis Pyenson* (Western Michigan University, Kalamazoo)

12:45-14:00:
Poster presentations and demonstrations

14:00-15:40:
Session a: Elite Networks and Social Structure
A Manichaean Network.
Håkon Teigen (University of Bergen, Norway)

Elite networks in 17th century Groningen.
Marike Peterzon (Hanze University of Applied Sciences, Groningen)

Networks at Court - The Chamber staff of the Imperial Viennese Court in the 18th century.
Irene Kubiska-Scharl (University of Vienna)

Session b: Transfer and Cooperation in Science and Culture

The Adoption of the European Architectural Heritage Year in China.
Yanan Sun (Cornell University, Ithaca)

A Social Network Approach to Self-PublishinPractices in Contemporary Art.
Agnes Blaha (University of Applied Arts, Vienna)

The Centennial Exhibition, Transnational Expert Networks and the Institutionalization of Primary Education during the 1870s: Japan – United States – France.
Klaus Dittrich (University of Luxembourg)

Was there ever such a thing as 'closed innovation'? Evidence from Eastman Kodak, c.1930-80.
Joris Merceils (Ghent University)

16:00-17:40:

Session a: Economical / Political Relations and Elite Strategies

City of Corsairs: Elite Cohesion and Privateering in Old Regime Saint-Malo.
Henning Hillmann (University of Mannheim)

Family Networks and the Emergence of a Financial Capital in Antioquia (Colombia).
Javier Mejía-Cubillos, Andrés Álvarez (University of Los Andes, Bogotá) and *César Mantilla* (University of Toulouse)

Relations of tenancy and military service in the Kingdom of Sicily. The Catalogus Baronum as a multi-layer network.
Hervin Fernández-Aceves (University of Leeds)

The Pompeian connection. A social network approach to elites and sub-elites in the Bay of Naples.
Wim Broekaert (Ghent University)

Session b: Circulation of Ideas

Competing networks as instigators of institutional change: toward a new understanding of monastic reforms (Lotharingia, eleventh century).
Koen Vanheule (Ghent University)

Layered Networks: Mapping the Dynamic Circulation of Books and Ideas in Ninth-Century Europe.
Clare Woods (Duke University, Durham)

Structural aspects of the Copernican theory's spreading (1543-1650).
Francesco Beretta (Laboratoire de recherche historique Rhône-Alpes, Lyon)

Between Saint-Petersburg and Berlin. Knowledge circulation between two Academies of Sciences: the correspondence of Jean-Albert Euler and Jean-Henri Samuel Formey (1766-1790).
Emmanuelle Chaze (University of Bayreuth)

All session- and posterpresentations take place in STAM (Ghent City Museum)

Friday 19 September:

09:30-10:20:

Keynote: Networks and Early Modern Institutional Change.
Emily Erikson (Yale University)

10:45-12:45:

Session a: Economy and Trade

Bang's Roman Bazaar and/or Temin's Market Economy? An agent-based network model of tableware distribution in the Roman East.
Tom Brughmans (University of Konstanz) and *Jeroen Poblome* (KUL)

The Cobden-Chevalier effect: Evaluating the causal effect of the Most Favoured Nation clause in presence of Network Interferences.
Luca De Benedictis (University of Macerata)

Networks among civil court users? Ways to handle late medieval civil court records.
Benjamin Hitz (Basel University)

Session b: Intellectual Cooperation

Kinship networks and cultural entrepreneurship in the Dutch Golden Age.
Harm Nijboer (VU University Amsterdam)

A description of Geneva philanthropy at the beginning of the 20th century through network analysis.
Alix Heiniger and *Stéphanie Ginalski* (University of Lausanne)

A "Cartel" for Peace: Expert Networks and the Transnationalization of Foreign Policy, 1919-1939.
Jens Wegener (European University Institute, Florence)

Intellectual Cooperation after the First World War: multi-level network analysis of an international organization.
Martin Grandjean (University of Lausanne)

12:45-14:00:

Poster presentations and demonstrations

14:00-15:40:

Session a: Spatial Dimensions of (Trade-) Networks

Modelling movement of goods to market: the evidence from texts, archaeology, and GIS.
Maeve McHugh (University College Dublin)

Networks and Urbanization in central Italy (1175/1150-500 BC ca).
Francesca Fulminante (Universita' Roma Tre, University of Cambridge)

The Way and its Structurality as revealing the growth history of roads network.
Claire Lagesse (Paris Diderot University)

Nodegoat: an Object-Oriented Methodology for Historical Network Research.
Pim van Bree and *Geert Kessels* (Lab1100, The Hague)

Session b: Networks and Discourse

What if? Ambiguity and contingency in social network analysis.
Ray Rivers and *Tim Evans* (Imperial College London)

A text-mining approach to social network analysis of policy makers in Belgium and The Netherlands.
Guy De Pauw, Marcel Hanegraaff, Tom De Smedt, Bert Fraussen and *Walter Daelemans* (University of Antwerp)

16:00-17:40:

Session a: Politics and networks

Informal coalitions in transitional regimes. The case of Portugal (1974-76) and Spain (1976-78).
Ivo Veiga (Instituto de História Contemporânea, Lisbon)

Genesis and Collapse of a Network: The Rise and Fall of Lucius Aelius Seianus.
Elena Köstner (University of Regensburg)

A Network to prepare an assassination attempt on Hitler and a coup in Nazi-Germany.
Linda von Keyserlingk (Potsdam University)

Ministers and Witches in Early Modern Scotland, 1563-1736. A Counterintuitive Relationship.
Anna Karoline Kaiser (University of Mannheim)

Session b: Personal networks

Anselm of Canterbury and the English Investiture Conflicts: A Historical Network Analysis (1070-1109).
Jana Pacyna (Tübingen University)

From individual identity to state-level politics: the effects of brokering and spatial fragmentation on a Hungarian aristocrat's daily life.
Tünde Cserpes (University of Illinois at Chicago)

Writing from Dauphiné to the Court : analysis of an administrative network (France, first half of the XVII century).
Natalia Iovchenko

Greek networks under the Roman Empire : The Letters of Libanius.
Lieve Van Hoof (Ghent University)

All session- and posterpresentations take place in STAM (Ghent City Museum)

Further information (maps, accomodation, scientific and organizing committee) can be found at www.ugent.be/hnr2014. Please note that registration is required - also for the free public opening lecture and reception wednesday 17 september 2014, 19h. (Contact and registration via the email address: hnr2014@ugent.be.)

HNR 2014
Historical Network Research Conference

Annex 7

Workshop 'The Transnational Challenge: Tracing Networks across Borders'

Maastricht University, June 27, 2014

Venue: Spiegelzaal, Soiron Building Grote Gracht 90- 92, Maastricht

In this one- day workshop we will explore the possibilities and difficulties of transnational network research, both in history and the social sciences. We have asked five experts (who deal with different themes and methodologies) to shed light on their concrete research strategies. More than in research results as such, we are interested in the processes that generate these results. The presentations will be followed by a panel discussion about different methodologies in transnational studies. In addition to the presentations of experienced scholars, the morning session will be fully dedicated to the work of early career researchers / PhDs in projects coordinated by the convenors of the workshop. Our idea is that the more experienced scholars try to comment on research problems posed by the PhDs.

Transnational networks (whether political, social or scientific) changed drastically in both scale and kind in the modern and late modern world. We are interested in how these networks took shape through the traveling of people, ideas and objects, and how they were maintained through instruments such as conferences, protest meetings, correspondence, journals and international organizations.

Transnationalism has grown into an academic buzzword over the past decades, and research into the phenomenon has methodologically taken different paths. These range from approaches that are highly digital and quantitative, to those that are more qualitative and text- oriented, from research that focuses on empirical data- gathering to studies that concentrate on modeling theories. With our workshop we hope to contribute to the exchange of ideas between these different research practices.

The workshop ties in with two research projects that are currently carried out at Maastricht University. 'Nature's Diplomats' (Raf De Bont) explores the networks of ecological experts in international conservation organizations in the twentieth century. 'The Transnational Dynamics of Social Reform' (Nico Randeraad) studies the transnational dimensions of socio- legal reforms in the Low Countries, between 1840 and 1940.

Program:

9- 11h (chair: Nico Randeraad)
Workshop PhD researchers: Concrete problems in transnational network studies
11:15- 12:30h and 13:30- 15:15h (chair: Raf De Bont)
Methodologies for transnational network research:
Presentations by Charles van den Heuvel (Huygens ING) , Pim Huijnen (Utrecht University), Jan-
Henrik Meyer (Aarhus University), Julia Moses (University of Sheffield), Clare Saunders (University of Exeter).
15:30- 17h (chair: C. Verbruggen)
Panel Discussion:
Kiran Patel (Maastricht University), Pierre- Yves Saunier (Université Laval),Christian Topalov (EHESS, Paris)

BIBLIOGRAPHY

- ANDERSON, S. and BLANKE, T., Anderson n Tiobias Blanke, 'Taking the long view: from e-Science humanities to humanities Digital ecosystems', in: Historical Social Research, 37 (2012) 147-164.

- BENFORD, R.D. and SNOW, D.A., 'Framing Processes and Social Movements: an Overview and Assessment', in: Annual Review of Sociology, 26 (2000) 611-639.

- CALHOUN, C., Nations Matter: Culture, History, and the Cosmopolitan Dream (New York, 2007).

- Reimer, T. F., and A. Carusi. "Virtual research environment collaborative landscape study." (2010).

- CASTLES, F.G. et al., The Oxford Handbook of the Welfare State (Oxford 2010).

- Mario Diani, "Social movements and collective action." *The Sage Handbook of Social Network Analysis, Sage Publications, London* (2011): 223-235.

- HERREN, M. Internationale Organisationen seit 1865. Eine Globalgeschichte der internationalen Ordnung (Darmstadt 2009).

- KECK, M.E. and SIKKINK, K., Activists Beyond Borders: Advocacy Networks in International Politics (New-York 1998).

- Pauli Kettunen and Klaus Petersen, eds. *Beyond welfare state models: Transnational historical perspectives on social policy*. Edward Elgar Publishing, 2011.

- LAQUA, D., The Age of Internationalism and the Belgian Hub: Peace, Progress and Prestige (Manchester, 2013).

- LEMERCIER, C. and BERTRAND, M., 'Introduction: où en est l'analyse de réseaux en histoire?', in : Redes: revista hispana para el análisis de redes sociales, 21, 1 (2011) 12-23.

- LEONARDS, C. and RANDERAAD, N., 'Transnational experts in social reform, 1840-1880', in: International Review for Social History, 55 (2010) 215-239.

- MERTENS, M., VANHAVERBEKE, H., CLAEYS, J., HANUS, J., DE VOECHT M. ELSEN, H. VAN CAUWENBERGH, S., AMEZ L. and VAN GAEVEREN, K., "Research Data Management En De Vlaamse Universiteiten: White Paper". VLIR Werkgroep RDM & Open Science (2018).

- MÜLLER, C., 'Designing the model European—Liberal and republican concepts of citizenship in Europe in the 1860s: The Association Internationale pour le Progrès des Sciences Sociales', in: History of European Ideas, 37,2 (2011) 223-231.

- PATEL, K.K., 'Zeitgeschichte im digitalen Zeitalter. Neue und alte Herausforderungen', in: Vierteljahrshefte für Zeitgeschichte, 59, 3 (2011) 331–351.

- RODGERS, D., Atlantic Crossings. Social Politics in a Progressive Age (Boston/MA 1998).

- ROSENBERG, E. ,Transnational Currents in a Shrinking World, 1870-1945', in: ROSENBERG, E. A World Connecting, 1870-1945 (Cambridge MA 2012) 815-996.

- SAUNIER, P.Y., 'La secrétaire générale, l'ambassadeur et le docteur. Un conte en trois épisodes pour les historiens du «monde des causes» à l'époque contemporaine, 1800-2000', in : Monde(s), 1 (2012) 29-46.

- SAUNIER, P.Y., 'Trajectoires, projets et ingénierie de la convergence et de la différence : les régimes circulatoires du domaine social 1800-1940', in: Genèses, 71 (2008) 4-25.

- STRUCK, B., FERRIS K. and REVEL, J., 'Introduction: Space and Scale in Transnational History', in: International History Review, 33, 4 (2011) 573-584.

- TARROW, S., The new transnational activism. Cambridge studies in contentious politics (Cambridge 2005).

- VAN DAELE, J., 'Engineering social peace: networks, ideas, and the founding of the International Labour Organisation ', in: International review of social history, 50 (2005) 435-466.
- VAN DER VAART, L., Collaboratories: Connecting Researchers – How to facilitate choice, design and uptake of online research collaboratories (s.l. 2010).
- VERBRUGGEN, C., 'Combining social network analysis and prosopography', in: K. Keats-Rohan (ed.), Prosopography approaches and applications. A handbook (Oxford 2007) 579-601.
- VERBRUGGEN, C., LAQUA, D. and DENECKERE, G. 'Belgium on the move. Transnational History and the Belle Epoque', in: Belgisch Tijdschrift voor Filologie en Geschiedenis/ Revue belge de philologie et d'histoire, 90 (2012)
- WOLFFRAM, D.J., 'Social politics and the Welfare State: an International and a Local Perspective', in: Historisk Tidskrift, 127 (2007), 679-695.