



# “Society and Future” Programme

## Final report – “Summary of the research” part<sup>1</sup>

PROJECT ACRONYMN TIRO

TITLE: Teens and ICT: Risks and Opportunities

RESEARCH CONTRACT: TA/00/08

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*This summary is intended to reproduce the research results on the Internet. It is presented by the network coordinator to the programme administrator for approval and in three languages (Dutch, French and English).*

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<sup>1</sup> See art. 5.5.2. of the basic contract

**Links to the websites where the works of the research team are mentioned in the context of this project:**

- <http://smit.vub.ac.be>
- <http://www.ua.ac.be/tiro>

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### **OBJECTIVES AND STRUCTURE**

The *Teens and ICT: Risks and Opportunities* (TIRO) research project has examined the ambiguity of daily Internet and mobile phone practices (how they are used, perceived and the significance given to them) among Belgian teenagers (age 12-18). The primary objectives of the project were:

- to obtain an empirical insight into the chances and opportunities as well as the risks and challenges of Internet and mobile phone practices of teenagers in their particular environment;
- to consult all parties involved (teenagers, parents, teachers, youth workers and youth organizations) and use their experience as a starting point for
- presenting policy recommendations (legal and political) together with self-regulation rules which can contribute to better quality Internet and mobile phone use, both for the young people themselves and for their educators.

The research findings and recommendations are based on a quality panel survey of 17 Dutch-speaking and 17 French-speaking teenagers (age 12-18), 21 focus group discussions with teenagers, parents and teachers, a traditional-type nationwide survey of 1318 Belgian teenagers (age 12 to 18), a written survey in which 571 parents took part, and participatory brainstorming sessions in 6 Flemish and 6 Walloon classes. Two participatory workshops and interviews were also used to question stakeholders closely involved with the teenager world. Finally the study mapped out the national and European legislation that is relevant for teenagers' Internet and mobile phone use.

The key findings and recommendations are summarized below.

### **CYBERTEENS**

- **INTERNET AND MOBILE PHONE USE IN GENERAL**

**Internet use at home is almost universal:** 96.3% of teenagers use the Internet and almost all of those (92.8%) use the Internet in the home environment.

Teenagers are online on average 2 hours per school day, but longer on Wednesdays (2.5 hours and on free days and weekend days (3 hours). The more free time young people have, the more time they spend on the Internet.

This means that teenagers spend 35.7% of their leisure time on ICT. In most cases, young people spend their time at home alternating between physical contact with family members and virtual contact with friends with the help of ICT. Therefore, Internet use at home takes place in between meals. Internet use is also structured by homework, watching television and sleep.

The majority of young people (65.8%) are satisfied with the amount of time they spend on the Internet. A little more than one in five teenagers (22.0%) would like to spend more to much more time online. Even so, more than one in ten teenagers (12.2%) would like to spend less to much less time on the Internet.

**Motives:** Half of all teenagers use the Internet primarily for social contacts (49.8%). For almost one in three (31.0%) the Internet is primarily a leisure medium. Young people appear to use Internet least for finding information (19.2%). In particular for young teenagers who do not yet (are not yet allowed) to go out, the Internet is frequently a virtual scene, where one can be in contact with friends, have fun, relax and in particular temporarily escape from the limitations on mobility that youth sometimes entails.

**Internet use elsewhere:** Almost eight out of ten young people (77.0%) use Internet at one time or another at a friend's house. More than six out of ten teenagers (62.6%) use Internet at school. More than a fifth of teenagers (22.1%) use Internet in the library. Internet cafés (13.7%), the parent's place of work (9.2%) or shops selling games (4.7%) are visited less in order to use the Internet. Teenagers who are unable to go online at home visit significantly more Internet cafés, surf at friends' houses or go online elsewhere.

**Mobile phone use is almost universal:** 96.0% of all teenagers have their own mobile phones. A third of teenagers (35.9%) sometimes pay their calls and SMSs out of their own pocket. Almost one in four (37.8%) always pay themselves. The main reason for not using a mobile phone is the high cost price. Almost one in four young people (23.7%) have at one time or another had to pay more than they had expected for a ringtone. Teenagers making film clips and photos on their mobile phones do this mainly in order to send them to others (36.7%) and to a lesser extent to place them on the Internet (13.9%).

- **INTERNET USE SPECIFICALLY**

**Chat:** 67.0% of all teenagers always chat via a closed Instant Messaging program. A very small group (4.6%) always uses open chat boxes. Chatting via Instant Messaging extends the day's conversations and helps in doing homework and arranging to meet. Open chat boxes provide an additional stage for meeting all sorts of people not known before. At the same time, Instant Messaging makes it possible to remain in the same emotional and perceptual space. For teenagers, email is a functional, but soulless equivalent of chatting.

**Blogs, personal websites and profile pages:** 45.5% of teenagers have personal information placed online in the form of a profile. 40.7% have their own blog and almost two out of ten young people (18.2%) have their own websites. Teenagers attach much importance to reactions to their online self-presentations. Young people visit each other online in their quest for a personal and social identity. Central to this are processes of constant alternation between conforming and differentiating.

**Games:** More than eight out of ten young people play computer games. 27.9% of teenagers play several times a week and 16.9% daily. The very large majority of teenagers limit the number of hours they play games. For many teenagers playing computer games is their oldest memory of ICT use. For most teenagers computer games are a social happening. Playing with others can take on various forms depending on whether it happens in a home or online situation or via a local network connection. The most popular types of games are action/adventure games, racing games, and sport and adventure games. Although online gambling involves financial expense unlike most other games, 16.6% of teenagers say they (very much) enjoy gambling online.

**Internet use and school:** 62.6% of young people use Internet at school. Internet use rises with grade: from 54.9% in first grade of secondary school to 72.5% in third grade (aged 16 – 18). Computer use at school is mainly limited to lesson times (44.3%). Only 10.6% of pupils use computers at school outside lesson hours. The majority of young people (55.5%) are allowed to use the computers for schoolwork only. With nine out of ten young people (89.5%)

a teaching staff member is always in the room when they consult Internet at school. There is a large demand among young people for more up-to-date Internet use at school, in particular as regards knowledge, skills and creative use. Teachers' own expertise is assessed as being pretty low.

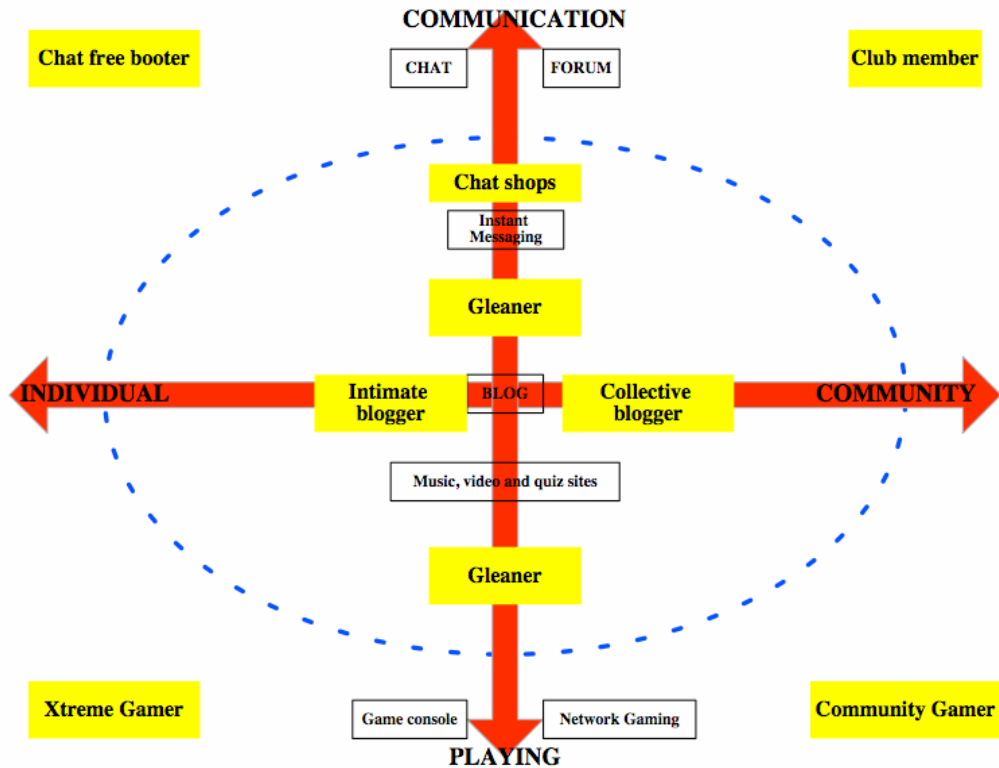
Homework and Internet usage go hand-in-hand. Teenagers make frequent use of Internet for gathering information. Sources other than Google and Wikipedia are rarely consulted. Discussing homework over by Instant Messaging or telephone is part of school-going young people's daily life. Online collaboration in doing homework is coupled with the condition of reciprocity. Everyone is expected to contribute their their own part to the complete work.

**Digital skills:** Basic skills like typing a text on the computer (97.4%), researching information on the Internet (97.2%) and talking with other people via Instant Messaging programs (93.6%) are almost universal. More advanced skills like downloading film clips and playing games with others via the Internet appear a little less commonly known. Placing a message in a discussion forum (72.0%) and downloading music (86.1%) are the skills in this category that teenagers master respectively least and most. Of the specialist skills, making a blog seems to be the most common. Other specialist skills are placing a film clip on the Internet (47.2%), chatting by means of VoIP (Voice over IP (Internet Protocol)) (44.6%) and making a website (36.7%). One striking statistic is that no less than 16.6% of young people maintain that they know how to hack a computer.

- **USER TYPOLOGY**

Based on the most frequently occurring ICT uses and perception, a typology is obtained that is expressed in the figure below.

The vertical axis shows the diversity of ICT practices. It sets practices directed primarily at communication against those directed primarily at playing. The horizontal axis represents the social role attributed to the technology by our panel. To the left we find the individual or hedonistic significance of ICT. The right extreme represents the social aspects of technology. The third axis is the oval in the centre of the pattern. This shows the intensity of the ICT practices. Within the oval we find the diversified practices, outside it unilateral types of use.



- **BOY/GIRL DIFFERENCES**

**Time online:** Although there are no significant differences between boys and girls as regards the amount of time spent actually online, 13.8% of girls would like to spend less time and 25% of boys more time on the Internet.

**Motives:** Girls use the Internet in particular for social contacts (60.7%) while boys see the Internet mainly as a leisure activity (43.1%).

**Internet use specifically:** Girls (75.6%) opt more often than boys (58.6%) for always chatting via a closed chatbox. More girls than boys have blogs (45.1% vs. 36.3%) and more of them (49.6% vs. 41.4%) put together profile pages. Boys tend more to have their own websites (22.1% vs. 14.2%). Boys not only play games more often and longer than girls, but also like more varying types of games. While for girls the most important motivation for playing games is to pass the time, boys have various motives, and also place much more value upon the extensive control possibilities that a game console offers. Finally, boys are more familiar with the customs and language use attached to games (game culture). Girls use game technology much less and tend to speak in general terms of 'playing games'.

**Skill levels:** Boys claim to be more advanced than girls when it comes to computer and Internet skills and more often believe themselves to have specialist competences. Also, with girls there is a greater likelihood that an Internet session will consist of the simultaneous use of multiple software technologies (62.6% vs. 43%).

**Computer location:** With girls (50.7%) the computer is more often in an open area than with boys (37.6%).

**Internet use elsewhere** More girls than boys go online at school (66.8 % vs. 58.5 %). Girls also use libraries' computer facilities more often (24.7% vs. 19.7%). Boys surf more in Internet cafés (17.9% vs. 9.5%) or in games shops (10.2% vs. 0.9%).

**mobile phone:** slightly more girls (97.5%) than boys (94.4%) appear to have a mobile phone.

- **SOCIAL DIFFERENCES**

### **Age**

Almost one in three teenagers in first grade (31.3%) would like to spend more to a lot more time on the Internet, whilst for the second grade this is just 19.9% and for the third grade 13.9%.

As regards use of **applications**, it would appear that second grade teenagers (mainly aged 15) in particular use the Internet significantly more as a means of communication (56.7% vs. 45.5% in first grade and 46.7% in third grade). In addition to this, younger teenagers in first grade play significantly more computer games than the older third grade teenagers.

Second and third grade teenagers state that the computer they use most is located in a more closed-off area (60.3% and 58.3%). The youngest teenagers on the other hand state more that the computer they use most is in an open area and less in a separate closed-off area (49.9%).

Pupils for first grade score lowest with regard to **computing and Internet skills**. Second grade teenagers differ from the first grade in terms of basic and specialist skills. Second and third grade teenagers differ significantly from first grade when it comes to advanced skills. There are no significant differences in ICT competence levels between the second and third grade. Proficiency in multitasking increases as teenagers become older.

More third grade teenagers (98.7%) have their **own mobile phone** than younger teenagers. Even so, mobile phone ownership in the first two grades is still very high (94%).

### **Educational levels**

In Wallonia, young people in general secondary education go online more often than young people in vocational education. In Flanders there are only a few significant differences between the three educational directions. Teenagers in general education state that they have more basic skills than vocational education pupils. The research findings in Wallonia point in the same direction.

- **REGIONAL VARIATIONS**

The **gap** between **use of** and **access to** the Internet is more strongly visible in Wallonia than in Flanders. Flemish young people made somewhat greater use and have somewhat more access to the Internet than young people in Wallonia. In Wallonia, 99.2% of teenagers are Internet users, in Wallonia 92.9%. Flemish teenagers spend an average 2.5 hours a day on the Internet, while their Walloon counterparts spend only 2 hours.

**Educational differences** are more visible in Wallonia: Young people in *enseignement général* appear to go online more, while young people in *professionnel* education appear to use the Internet less (99.4 % and 83.7 % respectively). For young Flemish people no differences were observed between the different directions of study.

Walloon teenagers would like more than Flemish teenagers **to extend their time online**

(26.9% vs. 18.2%), whilst Flemish teenagers tend to be satisfied with the amount of time they currently spend on the Internet (69.0% vs. 61.5%).  
The **blog phenomenon** is more widespread in Wallonia (55.9%) than in Flanders (28.3%). The reverse applies for **personal websites** (12.3% vs. 23.1%).

Walloon teenagers appear to spend a little more time **playing games** than Flemish teenagers. Walloon teenagers are more inclined to venture to online gambling than their Flemish counterparts (23.6% vs.10.7%).

The computer that the young people in Wallonia use most is more often in a separate area (63.7%) than is the case for Flemish teenagers (50.5%).

In the area of Internet use, Flemish **education** (76.8%) scores considerably higher than Walloon education (45.3%).

Walloon teenagers believe that they score highest when it comes to specialized **computer and Internet skills**. Flemish teenagers are supposedly better in basic skills.

- **TEENAGERS/PARENTS**

### **General**

Slightly fewer parents than teenagers use Internet (86.1% vs 96.3%). Their computer and Internet skills are also more limited. Most parents have a command of the basic skills: a good eight out of ten parents can type a text on the computer or find information on the Internet. The gap between teenagers and parents relates mainly to more social skills like the use of Instant Messaging.

Parents tend to understate the amount of time their children spend on the Internet. One reason for this underestimation may be that parents are not always around when their children are online. 37.5% of parents indicate in this connection that their child is alone when surfing at home on the Internet.

### **Information**

With regard to parental involvement and guidance, around seven out of ten young people (69.8%) state they are asked by their parents, sometimes to always, what they are doing on the Internet. More girls than boys are regularly asked (76.5% vs. 63.1%). Younger teenagers hear such questions more often than older teenagers (73.1% in first grade, 70.6% in second grade, 64.6% in third grade). Half of teenagers say that they never (50.3%) surf together with their parents on the Internet, the other half says that they sometimes do so (46.2%) or always (3.4%).

Almost nine out of ten young people (86.7%) state that they help their parents when they have problems surfing. Eight out of ten (80.6%) are asked some time or another by their parents to help them with Internet-related problems. More than half of parents (55.8%) report that they help their child when he or she has a problem with the Internet. Roughly the same percentage of parents (55.2%) say that their child asks them for help when he or she has a problem with the Internet.

Only one out of ten young people (12.4%) report that they learned how to chat on the Internet from their parents. Parents estimate even lower their advice on chatting. Even fewer parents (8.8%) state that they have taught their child how he/she can use the Internet to chat. Few teenagers (4.8%) have apparently learned from their parents how to surf on the Internet. A little more than two out of ten parents (22.7%) say that they have taught their children how to surf.

## **Agreements**

Parents attempt to limit their teenagers' exposure to certain online activities that can involve economic or privacy risks, such as online shopping, participation in online competitions and releasing personal data online. The duration of Internet use is limited by a majority of parents. Although a good number of teenagers endorse this, we find a clear contrast between the proportion of parents and teenagers reporting that these and other agreements apply.

Globally speaking it is the youngest teenagers that have the most restrictive rules imposed on them or are most frequently controlled by their parents. On average it is the older teenagers on whom the fewest limitations are imposed. The ban on using the Internet when the young person is alone at home applies in particular to teenagers from the first grade.

For two limitative measures that parents can impose, significant differences were found between boys and girls. Parents are more inclined to limit their daughters than their sons in the time that they are allowed to spend online (35.6% vs. 29.1%). Daughters are also allowed to release less personal information on the Internet (62.2% vs. 47.9%).

## **Social differences**

Parents with higher educational levels are more aware of their child's activities and circle of friends and provide guidance in a more diversified way. Parents with lower educational levels appeared to have less knowledge of their teenagers' online habits. Their guidance tends to be rather one-sided, opting faster and almost exclusively for a limiting, restrictive guidance. This is perhaps not by accident: certain of the less well educated young people observed suggest or give the impression more than once that they consciously screen off their leisure life from any form of parental control.

Young people from better educated environments are more forthcoming, but this also depends on their parents' approach towards them. Parents with higher educational levels generally have not only built up more ICT knowledge and skills during their own education, but also make more use of these technologies professionally. Young people from these environments, when they encounter questions or problems, will seek advice from their parents and take them into their confidence, whilst young people from less well educated environments will seek help exclusively from contemporaries or peers.

## **CYBERRISKS**

**Internet dependence:** Well over half of young people (58.9%) would miss the Internet if they were unable to go online. A smaller group of teenagers (41.7%) would find life boring and empty without Internet. On the other hand 73% of teenagers say that they could go for several days without Internet, and 65% disagreed or totally disagreed with the statement that they prefer spending time on the Internet than doing something else. 80% of young people prefer talking to people face to face than chatting. Higher Internet dependency is linked to games and chatting and higher computer and Internet skills.

**Excess mobile phone use:** Girls in particular state that they would miss their mobile phones if they found themselves without them.

- **CONTENT RISKS**

**Pornography:** 61.2% of teenagers have accidentally landed on websites with naked pictures and half of them on porn sites (52.6%). A quarter of teenagers (27.8%) intentionally go looking for porn. Boys and older teenagers in particular are confronted with this, both



accidentally and intentionally.

**Violence and racism:** 60.7% have already been confronted with images that they find horrifying or disgusting or photos/clips with acts of violence (57.0%). Fewer teenagers – around a quarter of young people (26.3%) – have been confronted with racist websites.

Girls and younger teenagers report coming less into contact with naked, porn, violence and horror images.

**Illegal downloading:** 78% of teenagers admit to downloading music from websites that do not demand a financial contribution for copyright. Almost two out of ten young people (19%) find illegal downloading bad.

**Plagiarism:** More than eight out of ten young people (82%) state that they use information taken from the Internet without referring to the source.

**Lack of critical sense:** 68% of young people say that they are able to assess the reliability of information on the Internet. 67% are convinced that they can see the difference between reliable and unreliable information on a website. Third grade pupils score higher on the scale 'competence for judging information on the Internet' compared with first grade pupils. In both parts of the country it is teenagers in vocational training that assess their powers of judgement lowest.

- **CONTACT RISKS**

**Privacy:** When chatting for the first time with someone they have never 'met in real life', teenagers fairly easily give certain details. Almost eight out of ten young people give profile data (like gender, age, hobbies). Three out of ten teenagers are ready to give a photo (35.1%), just one out of ten a film clip (9.9%). With contact data they are more cautious. More than nine out of ten do not give their home address and phone number during a first chat contact with an unknown person (95.3%). Although seven out of ten say they would not give their mobile phone number, a quarter say that they (possibly) do so (17.5% possibly and 5.3% certainly). Although more than half (54.7%) state that they certainly or possibly do not give their email address, a slightly smaller group (45.3%) say that they perhaps or certainly do so. When girls give their personal information, then it tends to be profile data. They protect their contact data better than boys. First grade teenagers protect both their profile and contact data better than older teenagers.

**Cyber-harassment:** Although cyber-harassment is a much-discussed topic and mapped out in detail by the teenagers, the very large majority of teenagers report never having been victims of cyber-harassment. 34.3% of teenagers have already been harassed via the Internet or mobile phone. A small minority (2.4%) describe this as a frequent occurrence. One fifth (21.2%) of teenagers admit to having at sometime harassed someone via mobile phone or the Internet. The most current cyber-harassment practice is receiving emails or SMS messages from someone from whom the young people do not want (no longer want) to receive them. Rather more than four out of five young people (45.5%) who have been victims of cyber-harassment have been confronted with this.

There is a certain positive connection between perpetrator and victim roles here, in the sense that teenagers that are confronted more with cyber-harassment also appear to perpetrate it more. The reverse applies just as much - teenagers that perpetrate cyber-harassment tend also to be more often the victims of such harassment. Teenagers that are more frequently confronted by cyber-harassment, both as perpetrator and as victim, say that they find the harassment less annoying. This negative correlation between frequency and seriousness of

cyber-harassment can point to a certain accustomization factor, but can also be the result of certain strategies to deal with harassment. This problem is underestimated by parents. Teenagers appear to have been confronted more with cyber-harassment than parents realize.

**Potentially harmful chat contacts:** 16.1% of teenagers have already been asked to give sexual information about themselves and one in ten (10/6%) have been asked to undertake sexual acts. 21% of young people have already come into contact with an older person parading as a young person. Girls are confronted more often than boys with potentially risky chat contacts that are sexually tinted. The two higher grades appear to have also to have had more sexually tinted chat contacts compared with the first grade.

- **COMMERCIAL RISKS**

**Privacy:** Around seven out of ten young people (67.1%) have been confronted at one time or another with websites asking them for information. Three quarters of teenagers (72.8%) ask themselves questions about this. Additionally, a strong majority (69.2%) are concerned with what a website does with this personal information. Six out of ten young people (60.5%) report filling in incorrect data at times when they don't know why a website needs information about them. Teenagers appear to release profile data like favourite products, hobbies and gender easily when they receive a present in return. More than seven out of ten communicate data on gender, hobbies and favourite shops/products. Teenagers are slower to give personal contact data. The same applies to contact data of parents or friends.

**Spam:** By releasing personal details, teenagers are at times confronted with spam. Almost eight out of ten (77.1%) have already received unsolicited advertising mail from a company. Most young people (60.2%) remove this mail immediately. Even so, more than one in three (35.5%) have a quick look at these mails. A quarter of the young people (25.3%) block the sender's e-mail address. Six out of ten young people consider receiving spam as slightly annoying (42.1%) to very bad (22.6%). This leaves the fact that a third of young people (35.3%) do not find receiving spam a bad thing.

**Aggressive marketing of mobile phone ring tones:** A quarter of teenagers (23.7%) report having already paid more for a ring tone than they had originally thought. Less than one in ten young people (7.5%) subscribed to such a service without realizing it.

**By way of conclusion** it can be stated that teenagers feel strongest about the risks with which they are the least frequently confronted. Particularly serious in the eyes of both teenagers and parents are the concrete risky chat contacts that seldom occur. Certain situations in which teenagers are the perpetrators draw reproach from parents, while teenagers find them less serious (like downloading and plagiarism).

**Dealing with the risks:** Teenagers, parents and teachers indicated which strategies and solutions they found appropriate for handling the risks. These are ranked below.

**Priorities for teenagers:**

- 70% find it important to have a central reporting point for Internet complaints;
- 67% consider it important to have stricter legislation on online pornography;
- 65% find it important to have a broader offering of websites tailored to young people;
- 62% find it important to have websites with tips on safe Internet use;
- 61% find it important to have filtering software for blocking access to certain websites;
- 60% find more education on the dangers of the Internet necessary;
- 55% find more information or advice for parents necessary;
- 53% consider it important to have stricter laws on commercial activities directed at

teenagers on the Internet.

**Priorities for parents:**

- 98% consider it important to have stricter legislation on online porn;
- 97% find it important to have a central reporting point for complaints;
- 96% find it important for their children to be given more instruction on online dangers important.

**Roles of contemporaries, parents and teachers:**

**Preventive warning against dangers:**

- 52% of teenagers are warned by parents of possible online dangers;
- 28% see the media as a source of warnings;
- 21% get information from nobody;
- 17% are warned preventatively by teachers, friends or older brothers or sisters;

**Listening ear/ help after the event**

- 55% tell about their unpleasant experiences to friends;
- 35% also tell about them to their parents;
- 20% talk with no one or with an older brother or sister.

**(Informatics) lessons to measure:**

- Flemish parents say that it is necessary to have a cross-disciplinary subject informatics, for example in religion, Dutch or life-key lessons.
- Flemish young people are asking for more lesson time (in general or specifically in informatics-directed disciplines) to be devoted to both the dangers and opportunities of the Internet: addiction, virus scanners, dealing with spam, downloading, privacy statements, dangers of chatting, learning to make websites, researching information. Everyone should be required to learn at school how to make a personal email address.
- Flemish teachers plead in particular for equal opportunities in terms of ICT skills and use, and see education as the only satisfactory solution.
- Walloon teachers do not deem specific informatics lessons as necessary, and plead rather for a cross-disciplinary approach.

**CYBERTOOLS**

The concrete recommendations deriving from the legal investigation, the field survey of the parties involved (the young people themselves, their parents and teachers) and consultation of the organizations and institutions involved with this subject area, are summarized below.

**Recommendations to young people**

- Ask yourself: 'Would you do offline what you do on the net?'
- If you see unacceptable practices, speak about them with other people, someone you trust.
- Share positive ICT experiences with your parents, involve them in your ICT use and perception.
- Present intermediaries on Internet forums, and online etiquette.
- Be aware of the public character of the Internet.
- Be aware of the potential commercial character of the Internet.

**Recommendations to parents**

- Be positive towards young people's ICT use, don't be just repressive.
- Dialogue with young people, and join them in thinking over the ethical aspects of ICT use and perception.
- Improve your own ICT knowledge, via your children or by taking a course.

- Make a distinction between positive control and breaching your child's privacy and intimacy. Attempt to dialogue here too, but not in crisis moments.

#### **Recommendations to institutions and organizations (educators, youth associations, NGOs...)**

- Take the initiative to develop an ethical framework.
- Put yourselves forward as possible intermediaries in ICT conflicts.
- Youth associations can develop instruments through which young people learn to detect their ICT profiles and to assess the risks involved.

#### **Recommendations to schools and educationalists**

- Media and Internet literacy and information skills must be part of the school programme and final attainment levels.
- ICT use can be taught in any subject and not just in informatics lessons.
- Pay attention to developing an ethical reference framework for ICT use and perception.
- Be ready to play a mediator role.
- Internet skills can already be included in the lower grade curriculum.
- Teachers must be encouraged to sharpen their ICT skills.

#### **Recommendations to the media**

- Media ought to be able to contribute to a critical consciousness with regard to ICT use, not only in terms of risk but most certainly of its potential.
- Public broadcasting has a special duty in this field.
- The media need to include ICT use in their own channels with a view to teaching ICT skills to their audiences.

#### **Recommendations to Internet Service Providers (ISPs)**

- Apply affordable tariffs with a view to universal access.
- Apply a transparent pricing policy.
- Offer cheaper subscriptions to young people.
- Offer a complaints services.
- Play an exemplary role for online etiquette and information provision.

#### **Recommendations to telecom companies**

- Take responsibility for the safety of your products.
- Set up complaints and after-sales services

#### **Recommendations to government (federal, regional,...)**

- Have an overarching, concerted policy covering all levels and departments.
- Give the education department a central role in setting final attainment levels and providing additional training for teachers.
- Set up a multi-stakeholder platform to maintain dialogue and optimize everyone's concept of responsibility.
- Set up a complaints window.
- Maintain a continuous policy on the question of the digital divide.