# Nordic Children's Risks and Opportunities Online

## The EU Kids Online Survey from a Nordic Perspective

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It might seem now that the Internet has been around for a very long time. And in a way it has been, as the foundations of what is now commonly referred to as the Internet were laid in the late 1960s. Yet as late as 1991, a book written by leading figures in computing, and most humbly titled *Technology 2001: The Future of Computing and Communications*, made no references to the Internet. Nor did the 'World Wide Web' or 'cyberspace' figure in the index. In fact at that time, probably few really understood the nature of the revolution that took place between September 1993 and March 1994, when a network that had been dedicated to academic research became a network of networks open to all (Briggs and Burke 2005).

'Every new medium of communication has in its time aroused anxiety' wrote Sir Hector Hetherington in his foreword to the pioneering work of Hilde T. Himmelweit (1958: xiii) and her collaborators on television. To 21st century researchers, television is no longer a 'new medium' and in the meantime other 'new media' have become objects of interest, and now it is the Internet's turn. The assumption that young people are more future-oriented, more apt and more technologically aware and interested than adults are is not new (Rushkoff 1996). To some extent, it is believed that young people's early adoption of and adaptation to new media and technologies such as the Internet are mainly the result of the inherent interest adolescents are assumed to have in new technologies as well as their massive use in formal educational settings (Lee, 2005). Indeed young people have been talked about as being 'digital natives' and their parents as 'digital immigrants' (see Prensky M. 2001), although critics have argued that there is little empirical evidence for this claim (Helsper and Eynon 2010).

The following article presents new results on children's use, activities and experiences on the Internet, focusing on the Nordic countries. The data used come from a survey designed and conducted by the *EU Kids Online* network[1] and funded by the European Commission's Safer Internet Programme[2]. Data collection took place in the period from May to October 2010 in 25 European countries. The aim of the *EU Kids Online* project is to enhance knowledge of European children's and parents' experiences and practices regarding risky and safer use of the Internet and new online technologies, and thereby to inform the promotion of a safer online environment for children.

## The North Goes Online

If children and young people can be referred to as 'digital natives' in terms of their early adoption of and adaptation to new media and technologies such as the Internet, then the Nordic countries of Europe can also be labelled in that way. The five Nordic countries – Denmark, Finland, Iceland, Norway and Sweden – are some of the most advanced in terms of take-up of digital media technologies and infrastructure. Alongside many others, the Nordic countries issued plans or visions for the information society in the mid-nineties, and in 1999 the Nordic Council of Ministers decided to establish a specific council of IT ministers (Henten and Kristensen 2000). In the typically self-confident Nordic manner, the Icelandic chairman of the Nordic ministers for co-operation stated that 'Northerners are good IT producers and users'.

But not only did the Nordic countries have politicians who were enthusiastic and optimistic about the possibilities of the digital future, they also had the necessary technical infrastructure and economic affluence to make the vision a reality. For example, as early as 1991, the Icelandic telephone company had begun to prepare for a future in which broadband connections would be delivered to every household, concluding that by 2010 most users would have a single broadband connection carrying data, telephone, radio and television signals simultaneously – most likely through a fibre optic cable (see Samgönguráðuneytið 1991: 67). Thus, when looking for explanations as to why, in the first decade of the 21st century, the Nordic countries repeatedly appeared near the top of most lists ranking countries by take up or use of digital technologies, the reasons are probably more elementary than 'Northerners [being] good IT producers and users'.

Whatever the reason, the fact remains that in a global perspective the Nordic countries were undeniably amongst the first to embrace the Internet and the digital technologies. The question still remains, however, as to whether the Nordic countries have anything else in common other than having been among the early adopters when it comes to Internet use. Indeed, these countries are similar in many respects. Four[3] of them share the same linguistic roots and all share long traditions of public service broadcasting, strong newspaper industries, long traditions of protecting freedom of expression and freedom of the press in law (Carlsson 2010). To many from the outside world, the Nordic countries probably look fairly similar, and it is not uncommon for them to be referred to as a group (see, e.g., Hasebrink, Livingstone, Haddon and Ólafsson 2009: 87). At the same time, however, studies have shown that there are important differences between these countries in their use of these technologies (Drotner 2010).

## The EU Kids Online Survey

Previous *EU Kids Online* research identified a complex array of online opportunities and risks associated with children's Internet use (Livingstone and Haddon 2009a; 2009b). Interestingly, the risks of concern to children often are not those that lead to adult anxiety (Optem 2007). Also, it appears that the more children go online to gain the benefits found there, the more they may encounter risks, accidentally or deliberately (Livingstone and Helsper 2010). Risks may arise when children are sophisticated, confident or experimental Internet users, as observed in 'high use, high risk' countries or when, as in 'new use, new risk' countries, children gain Internet access in advance of an infrastructure of awareness raising, parental understanding, regulation and safety protection. Thus,

although the popular fear that the Internet endangers all children has not been supported by evidence, there are grounds for concern and intervention.

Further, despite the popular rhetoric of 'digital natives', many children still lack resources to use the Internet enough to explore its opportunities or to develop vital digital literacy skills (Helsper an Eynon 2010). Thus it is important to encourage and facilitate children's confident and flexible Internet use. Stakeholders face a difficult balancing act: promoting online opportunities without careful attention to safety may also promote online risk, but measures to reduce risk may have the unintended consequence of reducing opportunities (Livingstone 2009).

The *EU Kids Online* project has aimed to contextualize both the opportunities and risks to children associated with internet use in terms of the intersection of three wider spheres – European society and policy, childhood and family life, and continued technological change. The design of the *EU Kids Online* survey has aimed to examine the range of ways in which children use the Internet, recognizing that this varies by the location and device for going online, the amount of use and the digital skills a child has at his or her disposal. Children's use is hypothesized to depend on the socioeconomic status (SES) of their household as well as on their age, gender and, of course, the country in which they live.

In the *EU Kids Online* survey, following the questions on Internet use, children were asked about their online activities, thereby acknowledging their agency in choosing how to act online and how to embed the Internet in their daily lives (Bakardjieva 2005). The survey design also recognized that when children go online, they do so in a particular environment. They engage with certain services. The online interfaces they visit have their own character. Some contents are more available or easier to access than others are. Crucially too, many other people are already online. All these 'environmental factors' interact with the child's activities in shaping their online experiences:

- Some factors may enhance the benefits of going online: they may be labelled 'opportunities', for example the provision of own-language creative or playful content, or a lively community of people who share one's hobby.

- Some factors may enhance the likelihood of harm from going online: thus they may be labelled 'risks', for example the ready availability of explicit pornography or the activities of people who are aggressive, racist or manipulative.

- Some factors are ambiguous: for example, music downloading sites or video hosting sites may be fun, creative and empowering, but they may break copyright, or exploit intimacy or facilitate hostile interactions.

Quite ambitiously, the *EU Kids Online* project sought to examine the outcomes of Internet use for children. In other words, the aim was to trace the path from children's use and activities (experienced by most European children), through their encounters with factors hypothesized to increase the probability of harm (these are likely to be experienced by a smaller proportion of children). Finally, the project examined the outcomes for children in terms of subjective harm or, more positively, coping by children encountering these risk factors (affecting an even smaller proportion of children). The relation between risks and harm is complex. For some risks, the harm seems all but inevitable – bullying, for example, may be a factor in a child's life that, if it occurs, seems very likely to result

in some degree of harm. Exposure to pornography, however, is considered harmful by some, but according to others, whether harm results will depend on the circumstances.

To the extent that there is a gap between experiences of risk and experiences of harm, different explanations of the two may apply. For example, lonely children may be more likely to be bullied and more likely to be adversely affected if bullied. However, boys may be more likely to be exposed to pornography (i.e., a higher risk), but girls may be more likely to be upset by such exposure (i.e., greater harm) (Livingstone 2010). The *EU Kids Online* project sought to explore some of these contingencies.

## The Nordic countries and the logic of cross-national comparison

Looking beyond national borders for comparative purposes has a long tradition in the history of social science research, and can be traced back to early social scientists such as Max Weber and Émile Durkheim. Reasons for conducting comparative research are not difficult to enumerate. One of the most obvious concerns the question of the universality and, simultaneously, uniqueness of findings based on nation-specific data, which cannot be answered unless compared with data from other countries. Among other values of cross-national comparisons, broadening the research perspective and providing a 'fresh insight' into the issues examined within a particular national context are probably most often cited, implying that such an approach can reveal significant gaps in knowledge or point to new (and previously hidden) variables and factors influencing the phenomenon under study (Hantrais and Mangen 1996: 2; Livingstone 2003: 478).

The Nordic countries provide an interesting case for cross-national comparison given the many similarities between them in terms of language, culture and regulatory framework. Choosing to compare the four Nordic countries is based on the approach of 'most similar systems' as defined by Przeworski and Teune (1970: 32). The basic idea is that if important differences are found among these otherwise similar countries, then the number of factors attributable to these differences will be sufficiently small to warrant explanation in terms of those differences alone. In other words, a difference in the use of social networking sites between Denmark and Norway can be attributed to a smaller number of factors than if the comparison were made between Denmark and Turkey, for example. The present article uses data collected in four of the five Nordic countries – Denmark, Finland, Norway and Sweden – as a part of the EU Kids Online project (see www.eukidsonline.net).

## The Methodology of the EU Kids Online Survey

A random stratified sample of approximately 1000 Internet-using children aged 9-16 years was interviewed in each of 25 European countries (Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden, Turkey and the UK). The total sample size was 25,142.

The questionnaire, translated and back-translated from English into 24 languages, underwent cognitive testing and pilot testing to aid completion by children. Interviews took place during spring and summer 2010 in children's homes, were conducted face-to-face but with private questionnaire completion (computer-assisted or pen-and-paper)

for sensitive questions related to risk. Average interview time per child was 45 minutes. (Full details of the project's methods can be accessed at: www.eukidsonline.net).

Key features include:

- Two rounds of cognitive testing, in addition to piloting, to check thoroughly children's understandings of and reactions to the questions.

- Random stratified survey sampling of some 1000 children (9-16 years old) per country who use the Internet.

- Survey administration at home, face-to-face, with a self-completion section for sensitive questions.

- A detailed survey that questions children themselves, to gain a direct account of their online experiences.

- Equivalent questions asked of each type of risk to compare across risks.

- Matched questions to compare online with offline risks, to put online risks in proportion.

- Matched comparison questions to the parent most involved in the child's Internet use.

- Measures of mediating factors – psychological vulnerability, social support and safety practices.

- Follow-up questions to pursue how children respond to or cope with online risk.

- Inclusion of the experiences of young children aged 9-10, who are often excluded from surveys.

The design is comparative in several ways, comparing:

- Children's experiences of the Internet across locations and devices.

- Similarities and differences by children's age, gender and SES.

- A range of risks experienced by children online.

- Children's perception of the subjective harm associated with these risks.

- Children's roles as 'victim' and 'perpetrator' of risks.

- Accounts of risks and safety practices reported by children and their parents.

- Data across countries for analysis of national similarities and differences.

Note that findings reported for children across all 25 countries are calculated as the average across the particular 25 countries included in the project. In other words, when talking about 'Europe' below, it is distinct from although overlapping with the European Union (EU). The numbers reported for all 25 countries have been weighted to take into account the different size of the population in each country. Thus the findings for 'Europe as a whole' are intended to be as if a random sample of children had been drawn from all the participating countries.

## Use and Activities

In the survey, children were asked in which locations they use the Internet, recognizing that it is possible that more private locations are associated with more experience of online risks. Further, in relation to safety, the location of use suggests which adults, if any, could mediate children's experiences, whether encouraging them to take up opportunities or helping them to minimize risks.

Table 1 shows the results from various questions measuring Internet use and ways of accessing the Internet for the four Nordic countries individually and as a group (N4). It also shows the combined results for all 25 countries participating in the survey and how the four Nordic countries included in the survey rank on the list of those 25 countries.

**Table 1.**  *Use and Access*

|  | DK | FI | NO | SE | N4 | All 25 | Country ranking | | | |
|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  | DK | FI | NO | SE |
| Use the Internet daily (%) | 81 | 79 | 80 | 84 | 81 | 60 | 4 | 7 | 5 | 1 |
| Age when used the Internet first (years) | 7 | 8 | 8 | 7 | 8 | 9 | 1 | 4 | 6 | 2 |
| Have access in own bedroom (%) | 74 | 58 | 66 | 68 | 67 | 49 | 1 | 10 | 4 | 2 |
| Have own PC (%) | 35 | 23 | 34 | 46 | 36 | 35 | 12 | 23 | 14 | 6 |
| Have own laptop (%) | 59 | 33 | 62 | 46 | 49 | 24 | 3 | 7 | 2 | 5 |
| Have Own PC or own laptop (%) | 75 | 50 | 75 | 72 | 67 | 54 | 3 | 16 | 2 | 5 |
| Have a mobile device (%) | 17 | 12 | 31 | 22 | 21 | 12 | 6 | 12 | 1 | 4 |
| Parents use the Internet daily (%) | 84 | 87 | 96 | 91 | 90 | 49 | 4 | 3 | 1 | 2 |
| Estimated daily Internet use (minutes) | 113 | 95 | 114 | 113 | 109 | 88 | 6 | 12 | 3 | 5 |

QC303: How often do you use the Internet? QC302: How old were you when you first used the Internet? QC301: Looking at this card, please tell me where you use the Internet these days. QC300: Which of these devices do you use for the Internet these days? *(Multiple responses allowed)* QP215: Do you personally use the Internet? QP217: How often do you use the Internet? Time spent on the Internet is derived from QC304 and QC305: About how long do you spend using the Internet on a normal school day / normal non-school day?

*Base:* All children who use the Internet and one of their parents.

Across Europe, Internet use is thoroughly embedded in children's daily lives with some 60% of children using the Internet daily. The Nordic countries as a group are all among those countries in which the highest proportion of children falls into the group of daily users, with an average of 81% of children being daily users. The lowest of them is Finland, which ranks number seven out of the 25 countries. In Europe as a whole, the respondents in the survey say that they were on average little more than nine years old when they started using the Internet. It is clear, however, that children are going online at an ever younger age, as the 16-year-olds say that they were on average around 11 years old when they started using the Internet, whereas the nine year olds say that they were on average only 7 years when they started. Simplified, the trend in recent years seems to have been that ever more children use the Internet and at an earlier age. The average age when respondents from the Nordic countries started to use the Internet is between seven and eight years or around 1½ years earlier than in Europe as a whole. However, there are signs that the rest of Europe is 'catching up' with the Nordic countries, as the difference in age of first use of the Internet

is smaller (around one year) for the youngest respondents than the oldest respondents (around two years).

Both in the Nordic countries and in Europe as a whole, the most common location of Internet use is at home. In the Nordic countries, only 3% of children say that they do not use the Internet at home compared with 14% of children in other European countries. The Nordic children also are more likely to have access to the Internet in their own bedroom (70%) compared with children in Europe as a whole (50%). The same applies to having one's own laptop or PC – this is more common in the Nordic countries than in Europe as a whole. But here we also see interesting differences within the Nordic countries, with Finnish children being less likely to say that they have their own PC or laptop, which also is in line with the fact that they are less likely to have access in their own bedroom. The same applies to the use of mobile devices. The Nordic children are more likely to use such devices than children in Europe as a whole, but within the four Nordic countries Finish children are the least likely.

Parents in the Nordic countries stand out clearly in comparison with parents in other European countries when it comes to both using the Internet in general and using the Internet daily. Only 2% of the parents of Nordic respondents say that they do not use the Internet, compared with one in four parents in other European countries. Furthermore, some 90% of parents of Nordic respondents are daily users of the Internet compared with only half of parents in Europe as a whole. The idea of parents as digital immigrants thus does not seem to apply in the Nordic countries. The pattern observed in places where children use the Internet and the devices they use is also reflected in the time spent online (see Table 2), where the Nordic countries are all above average. Also, just as for having access in their own bedroom and for having their own laptop or PC, Finland is a bit of an outlier in the Nordic group, with lower average use than the other three countries. This high level of use, however, does not result in similarly high numbers of children reporting problems related to excessive use.

**Table 2.** *Time Spent Online and Excessive Use*

| | DK | FI | NO | SE | | N4 | All 25 | | DK | FI | NO | SE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Country ranking | | | | |
| Estimated daily Internet use (minutes) | 113 | 95 | 114 | 113 | | 109 | 88 | | 6 | 12 | 3 | 5 |
| Report one or more type of excessive use (%) | 36 | 26 | 41 | 35 | | 35 | 30 | | 9 | 18 | 7 | 10 |

Time spent on the Internet is derived from QC304 and QC305: About how long do you spend using the Internet on a normal school day / normal non-school day? QC144a-e: How often have these things happened to you? The percentage of children who answer 'fairly' or 'very often' to one or more of five statements on excessive use.

*Base:* All children who use the Internet.

Social networking has become one of the most popular activities online. Over one third of 9- to 12-year-olds and three quarters of 13- to 16-year-olds who use the Internet in Europe have their own profile on a social networking site. Some 57% of European 9- to 16-year-olds with an SNS profile use Facebook as their only or most used SNS, and it is the most popular SNS in 17 of the 25 countries and second most popular in another five countries (Livingstone, Ólafsson and Staksrud, 2011). The Nordic countries are all 'Facebook countries' (i.e. Facebook is the most popular social networking site), and

the percentage of children with a profile on a social networking site is well above the European average in all four countries.

**Table 3.** *Children who Have a Profile on a Social Networking Site*

| | DK | FI | NO | SE | | N4 | All 25 | | DK | FI | NO | SE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Country ranking | | | | |
| Have a profile on SNS (%) | 75 | 67 | 69 | 67 | | 69 | 59 | | 3 | 10 | 9 | 11 |

QC313: Do you have your OWN profile on a social networking site that you currently use, or not?

*Base:* All children who use the Internet.

Table 4 shows a range of questions about activities on the Internet for the four Nordic countries individually and as a group (N4). As in previous tables, it also shows the combined results for all 25 countries participating in the survey and how the four Nordic countries rank on the list of those 25 countries. Children do a range of diverse and potentially beneficial things online, and for Europe as a whole, the most common activity is actually using the Internet for schoolwork. In the Nordic countries, the most

**Table 4.** *Children's Activities Online in the Past Month*

| % who have… | DK | FI | NO | SE | | N4 | All 25 | | DK | FI | NO | SE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Country ranking | | | | |
| Used the Internet for school work* | 83 | 72 | 75 | 46 | | 66 | 85 | | 9 | 21 | 19 | 25 |
| Played Internet games on your own or against the computer | 90 | 84 | 70 | 74 | | 79 | 83 | | 3 | 10 | 25 | 24 |
| Watched video clips | 88 | 82 | 89 | 90 | | 88 | 76 | | 5 | 11 | 3 | 2 |
| Visited a social networking profile | 77 | 66 | 68 | 73 | | 71 | 62 | | 2 | 13 | 12 | 6 |
| Used instant messaging | 58 | 60 | 66 | 70 | | 64 | 62 | | 20 | 19 | 13 | 10 |
| Sent/received email | 63 | 72 | 58 | 66 | | 65 | 61 | | 13 | 5 | 19 | 9 |
| Read/watched the news on the Internet | 16 | 54 | 61 | 42 | | 43 | 48 | | 23 | 8 | 5 | 12 |
| Played games with other people on the Internet | 50 | 50 | 46 | 52 | | 50 | 44 | | 11 | 12 | 16 | 9 |
| Downloaded music or films | 39 | 39 | 37 | 30 | | 35 | 44 | | 18 | 19 | 21 | 24 |
| Put (or posted) photos, videos or music to share with others | 40 | 34 | 41 | 46 | | 41 | 39 | | 17 | 21 | 15 | 7 |
| Used a webcam | 33 | 22 | 39 | 30 | | 31 | 31 | | 10 | 19 | 4 | 12 |
| Put (or posted) a message on a website | 28 | 39 | 44 | 59 | | 45 | 31 | | 16 | 5 | 4 | 1 |
| Visited a chatroom | 24 | 22 | 26 | 37 | | 29 | 23 | | 12 | 15 | 9 | 1 |
| Used file sharing sites | 13 | 11 | 26 | 55 | | 31 | 18 | | 18 | 22 | 6 | 1 |
| Created a character, pet or avatar | 23 | 18 | 17 | 27 | | 22 | 18 | | 8 | 14 | 15 | 4 |
| Spent time in a virtual world | 25 | 25 | 24 | 31 | | 27 | 15 | | 4 | 5 | 6 | 2 |
| Written a blog or online diary | 8 | 13 | 12 | 19 | | 14 | 11 | | 19 | 6 | 8 | 4 |
| Average number of activities | 7,4 | 7,4 | 7,8 | 8,3 | | 7,8 | 7,2 | | 13 | 14 | 7 | 3 |

* Note that the timing of the data collection in the Nordic countries was somewhat more during and after school vacations than in most other countries participating in the survey.

QC102: How often have you played Internet games in the past 12 months? QC306a-d, QC308a-f and QC311a-f: Which of the following things have you done in the past month on the Internet?[1] *(Multiple responses allowed)*

*Base:* All children who use the Internet.

[1.] To be sure that children understood these questions, most options included national examples. For instance, in the UK questionnaire, option 14 was phrased: "Used file sharing sites (peer-to-peer) (e.g. Limewire, Kazaa)."

frequently reported activity is watching video clips. This points to the importance of contextual information in cross-national comparative research. As it happens, the field-work in Finland, Norway and Sweden was carried out partially during and after summer holidays, which in all likelihood has affected the responses to this particular question.

Looking at Sweden as an example, the data collection started on the 27th of May and ended on the 20th of September so many of the children interviewed would simply not have been at school in the previous month. Also, looking at data from a recent PISA study (Skolverket 2011), it turns out that 15-year-old children in Sweden are no less like-ly to use the Internet for schoolwork than are children in other industrialized countries. The general pattern when comparing the list of activities both within the Nordic countries and when comparing the Nordic countries to Europe is in fact how widely the Nordic countries differ on many of the activities. Thus 90% of children in Denmark say they have used the Internet to play Internet games on their own or against the computer, which puts Denmark in 3rd place on the country ranking, but the corresponding figure for chil-dren in Norway is only 70%, putting Norway in the 25th and last place for this activity. Reading or watching news on the Internet is another example. This is reported by 61% of children in Norway but by 16% of children in Denmark. A third example is using file sharing sites, which is reported by 55% of children in Sweden, but 11% of children in Finland. It is of course a crude measurement of activities to only ask the children if they have or have not done certain things. Also, it is easy to imagine that some of the country differences have been caused by the somewhat ambiguous meaning of certain activities and the difficulty of translating them in an accurate way. However, it seems reasonable to think that at least in Denmark, Norway and Sweden this would have been easier than in most countries involved in the survey, given that those working on the translation could compare question phrasing within the Scandinavian language group. Having observed the differences in activities on the Internet reported by the Nordic respondents, it is interesting also to look at questions on skills (see Table 5).

**Table 5.** *Digital Literacy and Safety Skills*

| % who say they can… | DK | FI | NO | SE | N4 | All 25 | Country ranking | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | DK | FI | NO | SE |
| Compare different websites to decide if information is true | 51 | 79 | 72 | 67 | 67 | 56 | 18 | 1 | 2 | 5 |
| Change filter preferences | 33 | 36 | 22 | 32 | 31 | 28 | 9 | 7 | 22 | 11 |
| Bookmark a website | 79 | 88 | 87 | 87 | 85 | 64 | 7 | 1 | 4 | 3 |
| Block unwanted adverts or junk mail/spam | 58 | 69 | 49 | 62 | 60 | 51 | 11 | 1 | 17 | 6 |
| Delete the record of which sites you have visited | 55 | 76 | 60 | 56 | 61 | 52 | 15 | 3 | 10 | 12 |
| Change privacy settings on a social networking profile | 76 | 79 | 76 | 81 | 78 | 56 | 5 | 2 | 6 | 1 |
| Block messages from someone you don't want to hear from | 76 | 82 | 83 | 83 | 81 | 64 | 9 | 6 | 5 | 4 |
| Find information on how to use the Internet safely | 58 | 91 | 68 | 70 | 71 | 63 | 21 | 1 | 11 | 9 |
| Digital literacy and safety skills (average number) | 4,6 | 5,8 | 5,0 | 5,0 | 5,1 | 4,2 | 14 | 1 | 7 | 6 |

QC320 and QC321: Which of these things do you know how to do on the Internet? Please say yes or no to each of the following... If you don't know what something is or what it means, don't worry, just say you don't know. *(The average number is out of the 8 skills).*

*Base:* All children aged 11-16 who use the Internet.

It should be pointed out that the list of skills in Table 5 is in many ways just an extension of the list of activities, but with the underlying assumption that the things listed in Table 5 relate to a set of skills that can be linked to digital literacy. Here again we find a similar pattern as before; the Nordic countries as a group are above average compared with Europe as a whole, but when it comes to individual questions there are substantial differences between the Nordic countries. As an example, 79% of children in Finland say that they can 'compare different websites to decide if information is true' compared with only 51% of children in Denmark. It is in fact interesting that children in Finland have a high level of skills despite using the Internet less and having less private access than children in other Nordic countries. The Nordic countries as a group are above average for the 25 European countries for all of the skills asked about. The same applies to most of the countries individually, although respondents in Denmark are only around average. In fact the difference between respondents in Denmark and Finland is noteworthy, given that children in Denmark spend on average more time online and are more likely to have private access than children in Finland.

## Risks and Harm

The EU Kids Online survey asked children both about risks encountered and also activities in which the child is the perpetrator. Table 6 lists the main areas of risks included in the survey. Looking across Europe as a whole, some 41% of European 9- to 16-year-olds have encountered one or more of these risks. The Nordic countries are all above this European average and in fact are among those countries in Europe where children are most likely to have encountered at least one of the risks measured in the survey. It should be noted here that in general risks, on the one hand, and use and activities, on the other, seem to go hand in hand. Therefore given the overall high level of use and activities in the Nordic countries, they should be expected also to be among the countries where encountering risks is at least above average. When it comes to the two activities associated with being a perpetrator (acting in a hurtful or nasty way towards others or sending sexual messages), the Nordic countries do not group together in the same way and in fact provide some interesting contradictions. Thus, children in Sweden are among those most likely to admit to having acted in a nasty or hurtful way towards others on the Internet, which is in accordance with the fact that children in Sweden are also likely to have been sent nasty or hurtful messages on the Internet. Danish and Norwegian children, however, are much less likely to admit to such behaviour, at the same time as they are just as likely as children in Sweden to receive such messages. Here again we might speculate on possible differences in translations or cultural differences in how willing respondents are to admit to what is allegedly a negative behaviour. But again it seems reasonable to assume that such differences would be smaller between Denmark and Norway, on the one hand, and Sweden, on the other, than between Sweden and Estonia, where children are (like in Sweden) both likely to say that they have been sent nasty or hurtful messages and likely to admit to having done so themselves.

Risk does not necessarily result in harm, as reported by children. Children who use the Internet were asked if they had encountered a range of online risks and, then, if they had been bothered by this, where 'bothered' was defined as something that "made you feel uncomfortable, upset, or feel that you shouldn't have seen it." Table 7 shows how

**Table 6.** *Summary of Online Risk Factors*

| % who have… | DK | FI | NO | SE | N4 | All 25 | Country ranking | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | DK | FI | NO | SE |
| Seen sexual images on websites in past 12 months | 28 | 29 | 34 | 26 | 29 | 14 | 4 | 3 | 1 | 6 |
| Have been sent nasty or hurtful messages on the Internet in past 12 months | 12 | 5 | 8 | 11 | 10 | 6 | 3 | 14 | 5 | 4 |
| Seen or received sexual messages on the Internet in past 12 months (only 11+) | 16 | 18 | 20 | 18 | 18 | 15 | 14 | 8 | 3 | 7 |
| Ever had contact on the Internet with someone not met face to face before | 42 | 49 | 49 | 54 | 49 | 30 | 8 | 4 | 5 | 1 |
| Ever gone on to meet anyone face to face that first met on the Internet | 12 | 12 | 15 | 18 | 15 | 9 | 12 | 11 | 6 | 3 |
| Have come across one or more types of potentially harmful user-generated content in past 12 months (only 11+) | 29 | 23 | 42 | 36 | 33 | 21 | 7 | 14 | 2 | 3 |
| Have experienced one or more types of misuse of personal data in past 12 months (only 11+) | 12 | 5 | 10 | 14 | 11 | 9 | 7 | 25 | 10 | 3 |
| Encountered one or more of the above | 56 | 55 | 61 | 60 | 58 | 41 | 6 | 7 | 3 | 4 |
| Acted in a nasty or hurtful way towards others on the Internet in the past 12 months | 11 | 15 | 9 | 18 | 4 | 3 | 16 | 8 | 17 | 2 |
| Sent or posted a sexual message of any kind on the Internet in the past 12 months (only 11+) | 1 | 3 | 2 | 12 | 5 | 3 | 22 | 13 | 19 | 1 |
| Done either of these | 2 | 4 | 4 | 12 | 6 | 4 | 25 | 12 | 16 | 1 |

*Base:* All children aged 11-16 who use the Internet.

children and parents in the Nordic countries answered three questions related to this. In a classic case of the 'third person effect' (Davison 1983), children are roughly four times more likely to say that there are things on the Internet that would bother other children (55%) compared to saying that there are things that have bothered them personally in the past year (12%).

**Table 7.** *Online Experiences that Have Bothered Children*

| % who say… | DK | FI | NO | SE | N4 | All 25 | Country ranking | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | DK | FI | NO | SE |
| There are things online that bother children my age (child) | 94 | 51 | 89 | 88 | 82 | 55 | 1 | 17 | 3 | 4 |
| I have been bothered by something online (child) | 28 | 14 | 23 | 23 | 22 | 12 | 1 | 11 | 3 | 4 |
| My child has been bothered by something online (parent) | 15 | 19 | 20 | 23 | 20 | 8 | 5 | 3 | 2 | 1 |

QC110: In the PAST 12 MONTHS, have you seen or experienced something on the Internet that has bothered you in some way? For example, made you feel uncomfortable, upset, or feel that you shouldn't have seen it. QP228: As far as you are aware, in the past year, has your child seen or experienced something on the Internet that has bothered them in some way? QC322: Do you think there are things on the Internet that people about your age will be bothered by in any way?

*Base:* All children who use the Internet and one of their parents.

When it comes to having been bothered by something online, the Nordic children on average are almost twice as likely as children in Europe as a whole to say they have been bothered. Children in Finland are considerably less likely than their counterparts in other Nordic countries to say this, but still are above average. Parents in the Nordic countries are also among those most likely to say that their children have been bothered by something online and so seem to accurately estimate the likelihood of such things happening to their children.

## Mediation

Research has long examined the role of parents in relation to their children's media use, typically distinguishing co-use – the parent is present, even sharing the activity with the child, (ii) active mediation – the parent talks about content (e.g., interpreting, critiquing) to guide the child, (iii) restrictive mediation – the parent sets rules that restrict the child's use (e.g., by time or activities), (iv) monitoring – the parent checks available records of the child's Internet use afterwards and (v) technical restrictions – use of software to filter, restrict or monitor the child's use (see Livingstone, and Helsper, 2008; Nathanson, 2001; Valkenburg, Krcmar, Peeters and Marseille 1999).

Previous research has revealed a considerable generation gap, with parents reporting more mediating activities than are recognized by their children (Livingstone and Bober, 2006). This gap, in turn, has been interpreted as a sign of the barriers to parents' taking responsibility for their children's Internet safety – whether because parents and teenagers find it difficult to talk to each other, or because parents feel ill-equipped to understand the Internet, or because children fiercely guard their privacy online and so evade parental oversight. Some of the same questions regarding forms of mediation can also be asked of children's friends. Previous research has often shown that children would rather turn to their friends than to an adult when something online bothers or worries them (Livingstone 2009). But little is known about whether or how children really support each other in terms of Internet safety.

One question was repeated across the contexts of parents, peers and teachers: Have your parents/teachers/friends 'suggested ways to use the Internet safely?'. The outcome is shown in Table 8 for the four Nordic countries individually and as a whole (N4), as well as for all 25 countries participating in the survey.

**Table 8.**  *Online Experiences that Have Bothered Children*

| % of children who say that… | DK | FI | NO | SE | N4 | All 25 | Country ranking | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | DK | FI | NO | SE |
| …parents have suggested ways to use the Internet safely | 67 | 70 | 70 | 60 | 66 | 63 | 9 | 3 | 4 | 17 |
| …peers have suggested ways to use the Internet safely | 23 | 39 | 29 | 31 | 31 | 44 | 24 | 13 | 20 | 19 |
| …teachers have suggested ways to use the Internet safely | 40 | 70 | 68 | 46 | 54 | 58 | 25 | 3 | 5 | 20 |

QC329c: Have your parents ever suggested ways to use the Internet safely? QC336c: Have your friends ever suggested ways to use the Internet safely? QC338d: Have your teachers ever suggested ways to use the Internet safely?

*Base:* All children who use the Internet.

It is possible, although difficult, to determine whether mediation works in the sense of reducing children's exposure to online risk or experiences of harm (Kirwil, 2009). As we have already observed, Nordic children are among those most likely to encounter risks and to be bothered by their online experiences. At the same time, they are just above average in reporting that their parents have suggested ways to use the Internet safely and below average in reporting that either their teachers or peers have done this.

## Conclusions

Children in the Nordic countries where clearly quicker to go online than many of their counterparts in other European countries. It seems likely that this can largely be attributed to the fact that the Nordic societies had the necessary means (both in terms of infrastructure and general affluence) to provide children with the opportunity to go online. However there are clear signs that Nordic children no longer stand out in terms of the possibilities of accessing and using the Internet. This has important implications for how to interpret results from the early years of widespread Internet use among children.

The Nordic countries as a group are all among those countries where the highest proportion of children falls into the group of daily users, with an average of 81% of children being daily users. The main location of use has been the home, but in line with their early adoption of the Internet, Nordic children will most likely also be early adopters of mobile technologies. In mid-year 2010 when the survey was conducted, some 21% of Nordic Internet users said they had gone online using a handheld mobile device compared with 12% of Internet users in Europe as a whole.

When it comes to activities online and digital skills, the Nordic children are above average but only barely. In fact there is a notable difference between the four Nordic countries when it comes to individual activities. For digital skills, the Nordic children are more clearly ahead of children in most European countries, but perhaps not more than would be expected given the high level of use, the early age at which they start using the Internet and the level of use among parents.

Previous research as well as findings from the EU Kids Online study have shown that risks and opportunities usually go hand in hand on the country level (Hasebrink, Livingstone, Haddon and Ólafsson, 2009; Lobe, Livingstone, Ólafsson and Vodeb, 2011). This is the case for the Nordic countries as well. Children in those countries are relatively high users and use the Internet for a wide range of activities (compared with children in Europe as a whole), and they are also relatively likely to have encountered risks. It is a worthwhile task for the Nordic societies to seek ways to achieve high levels of activity and a high level of skills without the high probability of encountering risks.

### Notes

1. The author would like to thank the members of the EU Kids Online network for their collaboration in developing the design, questionnaire and ideas underpinning the findings presented here.
2. Finnish participation was separately funded by the Finnish Ministries of Education and Culture and of Transport and Communications.
3. The Danish, Norwegian and Swedish languages are similar to the extent that the people of these countries can understand each other, but the same does not apply to Icelandic even though the linguistic roots of all four languages are the same.

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