Sweet Child in Time: Online Sexual Abuse of Children – A Research Exploration

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Abstract: The 'Budapest study' conducted in 2009 focuses on the online activities and behaviour of teenagers studying in secondary schools in Budapest, Hungary. The range of risky behaviours includes chatting with strangers online, talking sex with strangers online, and having offline meeting with strangers encountered online. Offline meeting with strangers often led quickly to sexual intercourse. One of the striking outcomes of the research is that a significant proportion of teenagers who had already had a sexual relationship communicated the fact in conversations online. The research showed nevertheless, that "double moral standards", responsible for a person's danger-awareness during online communications, is more noticeable among Budapest pupils than among their peers from countries which joined the European Union in and before 2004. Budapest children tend to be more accepting when the stranger they meet online lies about his/her age and aims. They are seemingly less embarrassed when confronted by sexual material online or when someone initiates indecent talk with them. Young people in countries that joined the European Union in and after 2004 are supported less by adults when it comes to issues of online risks. On average, their schools have less awareness-raising, parents are less danger-aware, and they use fewer protective devices at home. This may lead to the fact that Budapest pupils do not usually turn to their parents when confronted by embarrassing online material or requests. This paper includes the core data on Budapest youngsters' habits in using the Internet, particularly regarding the issue of facing 'dangerous' content. However, it is to be noted that the definition of 'dangerous or risky online behaviour or content' as adult society addresses it is quite different from how children think of it. When developing any educational program on digital literacy, this should be taken into consideration.

'Sweet child in time you'll see the line. The line that's drawn between the good and the bad'
(**Deep Purple**)

1. BACKGROUND TO THE PROBLEM

The numerous assumptions and fears in relation to the habits of Internet use among Hungarian youngsters and the risks and actual dangers lurking for them in online environments are well known, yet we have very little valid data about them. Surveys up to now have only been carried out for the purposes of market research[1] or only on the adult population.[2] We have no evidence-based knowledge about where the messages of the tabloid world instilling fear may end, and where the actual dangers of the virtual space begin. Additionally, there is a lack of comparative research on attitudes to Internet use or the awareness of the risks of Internet use among youngsters from European countries with different historical backgrounds ('Western' as opposed to 'Eastern', or post-socialist countries). This study presents certain findings of the survey carried out in Budapest at the end of 2009, which attempts to cover – at least partly –the above-mentioned little-known areas.

The world of the Internet, 'virtual reality' and the dangers lurking there – mainly for children – is a frequent topic in the media and research.[3] The characteristic elements of the **Internet-narrative** are as follows:

1) The *social ramifications* of the new technology – the 'radical', 'revolutionary' effects of the Internet 'creating a new world';

2) The *duplication of the world* as one of the dominant effects of the new medium – the appearance and ever-faster unfolding of the online or virtual world alongside the offline or real world, and

3) The new *opportunities and risks* arising from the Internet – the peculiar and new opportunities of this world, but much rather its frightening dangers (or those presented as such).

The Internet is perhaps the hottest topic of the last decade. It engages the mass media as much as it is a focus for sociological research. Attention is understandably focused on children entering and confidently navigating the online world, and the threats they face. In relation to this, we can witness the following phenomena and characteristics today.

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[1] See for example VMR Kids, and the Symantec studies.
[2] See the World Internet Project.

3 '*Few issues in the past decade have so dominated the headlines or captured the public imagination as that of the children as online pioneers ...*' (Livingstone & Haddon, 2009: 1) Films depicting the problems of the duplicated world (everyday life, and what is behind it, reality and dream, etc.) also enjoy great popularity, including for example the dystopia of *The Matrix*, or the recent film *Inception*.

1.1. The Internet Use of Youngsters is More Intensive, Extensive and Skilled Than that of Adults

The Internet has become an integral part of the life of youngsters (the generation aged 6 to 18), and is now the primary means of gaining information, communication and an outstandingly important means of making and maintaining contacts. It sometimes appears as though the Internet generation lived in a world strange and unknown to their parents and to adults in general.[4] Even though as a trend this was also characteristic of changes in earlier times, the situation may never have been as critical as it is now. The more skilled access to easily reachable and attainable contents has in fact triggered a change or shift in the hitherto clearly defined relations between generations. While adults are still those in a position of power deciding on the principles of education and socialization, and overseeing its implementation, deciding on the contents of knowledge to be gained institutionally (i.e. what should be learned), and shaping the principles and policies that are intended to ensure welfare, it is the youngsters that are at home in the digital world so difficult to manage and follow for adults. Parents' digital savvy is far poorer than that of their children. To make use of *Marc Prensky*'s terminology, we can say that parents are *digital immigrant*s in the world of *digital native* children (Prensky, 2001). There are significant differences between the perceptual skills and cognitive activities of 'natives' and 'immigrants'. Children are able to receive and process many different pieces of information at the same time, and they do this more quickly, in a shorter time than adults, who are still proceeding step-by-step and can or are willing only to receive one piece of information at a time. Adults think that Internet communication (computer mediated communication, CMC) is the same as the offline media, and that only the technology has changed. As a result, they try to communicate in the digital world in the earlier, analogue way that they have already learned and know well. According to Prensky, digital immigrants will never lose their accent when speaking the language of the digital world.

With the spread of the Internet, adults have lost their earlier monopoly in defining the knowledge or information to be gained. The privilege of parental control (e.g. what known, read and 'tested' books they give to the children to read) and the importance of teacher's expertise is a thing of the past; it has become superfluous and dispensable. We are witnesses to a peculiar paradigm shift. Perhaps for the first time in history, youngsters are more experienced in the media of communication and cultural content than adults.

1.2. Online Threats are Difficult to Assess, and Uncertainties Abound

a)   An underlying problem is that analyses characteristically treat and interpret the Internet as one unified and fixed medium, while it is by no means constant, being always in a state of flux, which applies as much to its forms of appearance (e.g. Web 1.0 versus Web 2.0), as the hardware used to access it (e.g. desktop, portable computers, mobile phones, etc.).

b)   Conceptual difficulties and misunderstanding may arise from the fact that the definition of threat is not an objec-

tive one, contains several elements related to social structures, and is therefore open to varying interpretations.

c)   In research into the problem, there is a generational gap between the observed (i.e. children/youngsters) and the researchers (adults), which in this field may be a source of significant bias due to the marked difference in status, assumptions, values and language use, not to mention the fact that certain groups perceived as particularly endangered (such as very young children) are difficult to reach or survey.

d)   People tend to judge conversations of an offensive nature differently – this may be a source of contradiction in surveys.

e)   The problem of latency may also be significant. Children may not report an aggressor, even if the person causes serious problems for them, and they often do not even tell their parents.

1.3. For Adults, the World of the Net Generation is at Once Full of Hope and Fear

The Internet is the world of opportunities on the one hand, where – it seems – everything is much more easily available and accessible. The Internet is also the world of freedom. Information cannot be held back, and may not become the monopoly of the few. There is no need any more to go to a library or a teacher to acquire knowledge. Not only access to knowledge, but also personal contacts and encounters are free of the confines of space, time and financial limitations. In relation to the Internet, the traditional conservativism of adult society, its (often hysterically exaggerated) fear of youngsters, so different or 'worse' in general, and its anxiety in the face of the new medium endangering the morals of youngsters can all be observed clearly. The phenomenon itself is nothing new; what is more, looking back we see very similar reactions in the past to the appearance or growing popularity of other media. Actually, since the beginning of the Gutenberg galaxy, all new and widespread media have sparked fear and anxiety, and consequently considerable opposition, or as the title of *Starker*'s book of 1989 put it, 'crusades' against the 'evil influences' (Starker, 1989). *Starker* also says that the anxiety about one particular medium is in direct ratio to its popularity: *'The greater the audience is, the greater the presumed threat to individual health and social order'* (Starker, 1989: 53 quoted by Kirsh, 2006: 5) If we go back only as far as the medium immediately before the Internet that had the most significant effect, namely television, *Hetherington* already wrote in 1958: *'Every new medium of communication has in its time aroused anxiety ... Now it's the turn of the television.'* (Hetherington, 1958). Anxieties are, as we know, mostly related to children. What *Schramm* said about the relation of children and television in 1961, is also very typical: *'It is the children who are most active in this relationship. It is they who use television, rather than television uses them'* (Schramm, 1961: 1, quoted by Donoso *et al.*, 2009: 27). It is enough to replace the name of the medium, and it already applies to our times today.

The characteristically conservative attitude of adult society tends to magnify and exaggerate the dangers of any new medium, as we see. Traditional worries (perhaps due to the paradigm shift mentioned above) are more prominently pre-

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[4] *'... children and young people are living in a different world from that familiar to the adults'* (Livingstone & Haddon, 2009: 1)

sent in the case of CMC, and this attitude may sometimes even trigger moral panic. The way mass media characteristically works further enhances this effect, or we should perhaps rather say that mass media is the primary tool of generating moral panic. Media depict the Internet as a particularly dangerous minefield, concentrating on extreme cases, and isolating them from their context. The ever-expanding opportunities that the Internet offers are associated with increased danger, and media headlines emphasize mainly the latter. The online world as mirrored by the media is full of growing risks: deceit, lies, bullying, pornographic and other 'undesirable' contents, extreme and racist utterances, and sexual exploitation are all lurking in wait for our children as they stumble along the paths of the virtual world. As the opportunities become more readily available and accessible, threats and risks seem to become increasingly sinister. In addition, this threat, like domestic violence, does not come from the outside world. It crosses the doorsteps of homes, enters bedrooms, and thanks to rapidly evolving technologies is available practically everywhere, homing in on its potential victims wherever they are. If we were to rely solely on the popular adult visions, it would perhaps be advisable to immediately destroy all computers capable of any communication.

1.4. The Internet is Different Anyway

At the same time, it is equally great a mistake to go to the other extreme, generalizing and regarding all media of different historical eras as identical or denying and underestimating the risks linked to the opportunities of the new technology. It is true that the Internet is also only a medium, but it is different from any other one before. Virtual reality and the web do carry real dangers, precisely because of their freedom, lack of restrictions and their anonymity. Even though certain European states have worked out strategies to raise social awareness and also for preventive methods, there are no reliable data as to how effective these are and whether they are effective or suitable in achieving the envisaged goals in the long run.

1.5. EU Kids Online

Much research has been conducted into the topic at the national level, but there are only a few representative international studies offering comparisons. Currently, the only known representative international study into online child abuse is EU Kids Online (Livingstone & Haddon, 2009, Livingstone *et al.* 2010). This compares data from 25 EU member states.

Before we introduce our own research let us go through some of the most characteristic findings of the abovementioned European study (Livingstone & Haddon, 2009: 246-7).

1) The **ranking** and frequency of risks is very similar in different European countries:

    a. **Giving out personal information** is the most common risk everywhere; approximately half of teenagers online have done this.[5]

    b. The second most frequent is **seeing pornography online**; this affects about four teenagers out of ten.

    c. **Seeing violent or hateful content** online is the third in the frequency ranking, and affects about one-third of all teenagers.

    d. **Being bullied or harassed online** is the fourth, and affects one teenager out of about five to six.

    e. **Receiving unwanted sexual comments** is next on the list, and its frequency varies. One out of ten teenagers experienced this in Germany, Ireland and Portugal, one out of three to four in Iceland, Norway, Sweden, and the United Kingdom, while every other youngster in Poland.

    f. **Meeting an online contact offline** is last in the risk ranking. On average about 9% of youngsters (one out of eleven) reported this, even though the ratio was higher (one out of five) in Poland, Sweden and the Czech Republic.[6]

2) **Gender and socioeconomic status** (SES) are clearly differentiators concerning children's experience of risk.

    a. **Gender** differences in risk:

      i.   Boys

         1. Seek out pornographic or violent content more;

         2. Are more likely to meet somebody offline;

         3. Are more likely to give out personal information.

      ii.   Girls

         1. Are more upset by violent and pornographic content;

         2. Are more likely to chat online with strangers;

         3. Are more likely to receive unwanted sexual comments;

         4. Are asked for personal information more often.

      iii.   Both appear at risk of online harassment and bullying.

    b. According to this research, the risks are higher for children of a **lower social status**. For this reason, *'safety awareness programmes and media literacy interventions could usefully target less privileged families, schools and neighbourhoods'* (Livingstone & Haddon, 2009: 247).

2. INTRODUCTION TO THE 'BUDAPEST STUDY'

Our research (hereinafter referred to as the Budapest study) aimed to assess the habits of Internet use of 16-year-old secondary school students, and the threats they face in online environments. The research was conducted in November and December 2009, on a sample of 1200 students from Budapest, representative both in terms of school types

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[5] *'This immediately shows the complexity of risk. To advise not to give out personal information online make little sense on social networking sites or similar, since these are just based on the use of real names and other personal details. More significantly, anonym communication may be no less risky, because it 'deindividuates' participants and so removes conventional constraints and thus potentially even increasing risk.'* (Lüders *et al.*, 2009: 125)

[6] However, it is worth mentioning here that contrary to the image conveyed by the media, this threat is a lot less significant in general and in comparison to other risk factors, and mainly affects 'problem' children, that is those who are already threatened in the offline world. As Lüders and his colleagues write in reference to the findings of earlier research: *'Young people who are at risk of meeting adults typically already face serious problems offline, and often they are not being deceived.'* (Lüders *et al.*, 2009: 123)

(grammar school, vocational school, technical college) and school-years assessed (years 9 and 10). We used a self-administered online questionnaire under class-room conditions.

The aim of the research was to gain a comprehensive picture of the threats that Hungarian youngsters face in an online environment while they use the Internet, specifically:

- The rate of accessibility of harmful and damaging content;

- The psychological and physical consequences of an intentional or unintentional encounter with such contents;

- The danger-awareness of the school and the parents and any potential preventive measures;

- The forms of appearance of behaviours classed as sexual abuse threatening children, and

- The threat and trauma management/avoidance mechanisms of children.

In what follows, we wish to present some of the findings from our research, and compare them to the findings of available foreign and international research.

3. RESULTS AND DISCUSSION

3.1. Children's Internet Use

The great majority of youngsters are regular consumers of the Internet. About 85% of the respondents use the Internet on three or more days of the week, and two-thirds of them on a daily basis. It appears that the use of this global medium is by now incorporated into our everyday lives, evens out local differences, and has a levelling-out effect on the users. Hungarian students show great similarity to their foreign counterparts in terms of habits of Internet use, online time, Internet dating, and deviant behaviours related to Internet use.

In 2008, 60.7% of the EU's population had a broadband Internet connection. The under-18s, however, have an above-average rate of Internet access in all countries. We can also see that in the member states that joined the EU in and after 2004 (Hungary, Lithuania, Poland, Malta, Romania, Slovakia and Slovenia) children use the Internet more often than their parents (Livingstone & Haddon, 2009). Portugal can also be added to this list, because even though it is an older member state, in respect of its socioeconomic indicators, it resembles the countries that joined in and after 2004.[7] (Fig. (**1**)).

It is also known that in member states with lower socioeconomic indicators, awareness-raising programmes on online threats in schools and communities started later, and are still not as comprehensive as in the more developed (older) member states of the EU (Livingstone & Haddon, 2009: 23).

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[7] In the study, we compare the research data based on two groups, namely old vs. new members of the EU and eastern vs. western European countries. We are aware that these dichotomies are generalized, and may represent an overly heterogeneous grouping, as e.g. parameters of southern and northern European countries may be significantly different in some respects. Still, it appears that as regards the Internet use of children, these comparisons – however generalized – are valid, as the delayed development due to a similar political background results in shared characteristics across these two groups.
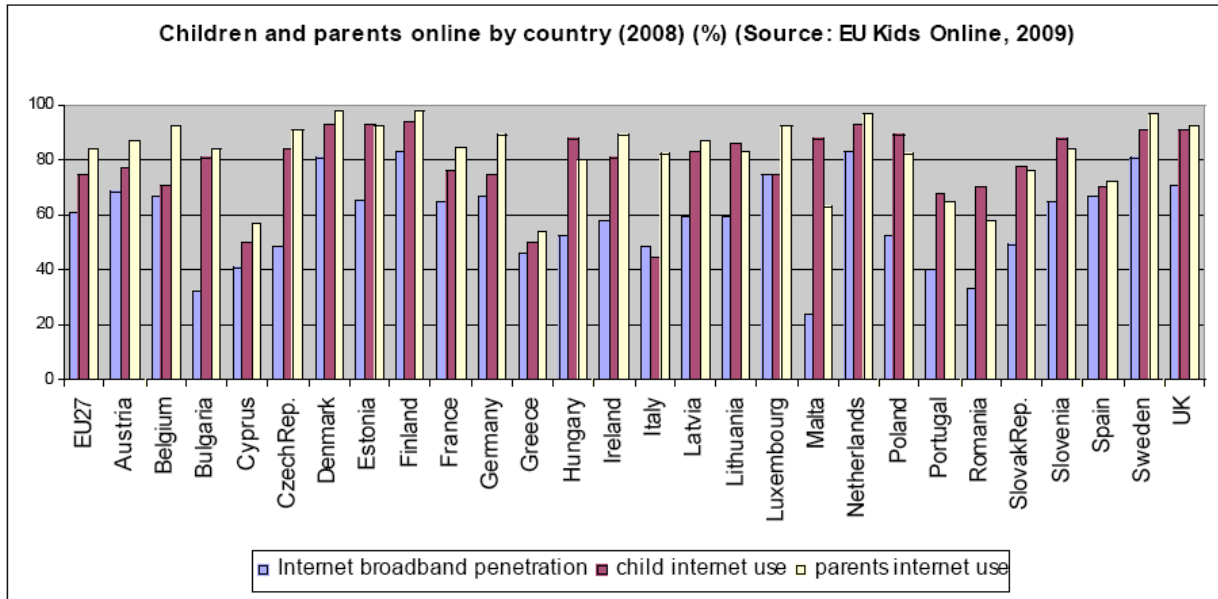
Besides the limited availability of resources, this may be due to the fact that in poorer regions Internet penetration underwent explosive development only in the past few years, so there was little time to prepare for the dangers of the Internet. Eurobarometer studies Fig. (**2**) clearly show that the Internet use of children grew drastically in 2008 primarily in new member states – mainly Lithuania, Malta, Hungary, Poland, Romania and Bulgaria. Portugal also belongs with these countries in this respect, because in 2005, only 54% of children used the Internet, compared to which 68% in 2008 is a significant surge.

3.2. Risks of Internet Use

The factors mentioned above – the delayed development of Internet use, the higher rate of Internet, use among youngsters (under 18 years of age) as compared to adults (parents), and the lack or immaturity of awareness-raising campaigns and programmes – all raise the risks of Internet use. What are these risk factors in particular? News in the media always highlights the growing superficiality of personal relationships and the assumption that the spread of Internet use leads to a proportionate deterioration and depersonalization of human relations, and present these as risks of Internet use. The other great group of risks involves the abuse of personal data, and sexual harassment and abuse. Let us examine to what extent our research results corroborate these assumed risk factors.

3.2.1. The Transformation of the Playground of Human Relations

Several studies have pointed out the popularity of online gaming and real-time communication among youngsters (e.g. Ritter *et al.*, 2004; Kerezsi & Parti, 2008). According to research, CMC may have three different effects on human relations:

1. Making use of the free availability and high speed of CMC, and also the advantages of simultaneous conversations, social relations may migrate to cyberspace.

2. CMC may reduce social relations. The Internet as an entertainment and information database may lure family members away from the family, friends, and personal contacts in small communities (Kraut *et al.*, 1998).

3. CMC may extend social relations. Regular Internet users have more and deeper personal network capital because on the Internet, the focus is on getting to know each other, the flow of information is quicker, and there are more opportunities to contact people and maintain the contacts (Quan-Haase & Wellman, 2004; Wellman *et al.*, 2002).

Despite that, many still believe that Internet use is a solitary activity and that those who have extensive online network capital are shy and not really good at establishing off-line contacts, so regular Internet use is in itself an indicator and/or risk factor of isolation. (Franzen, 2003; Williams, 2007; Mitaya & Kobayashi, 2008).

More recently, however, research on a self-reported basis clearly underlines the positive effect of CMC. The second round of the International Self-Reported Delinquency Study (ISRD2) in 2005 assessed the latent deviances of 12- to 15-year-old children (from class years 7 to 9) from 30 countries

Fig. (1). Rate of broadband Internet access, and Internet access of children and parents in the EU. (Source: EU Kids Online, 2009).
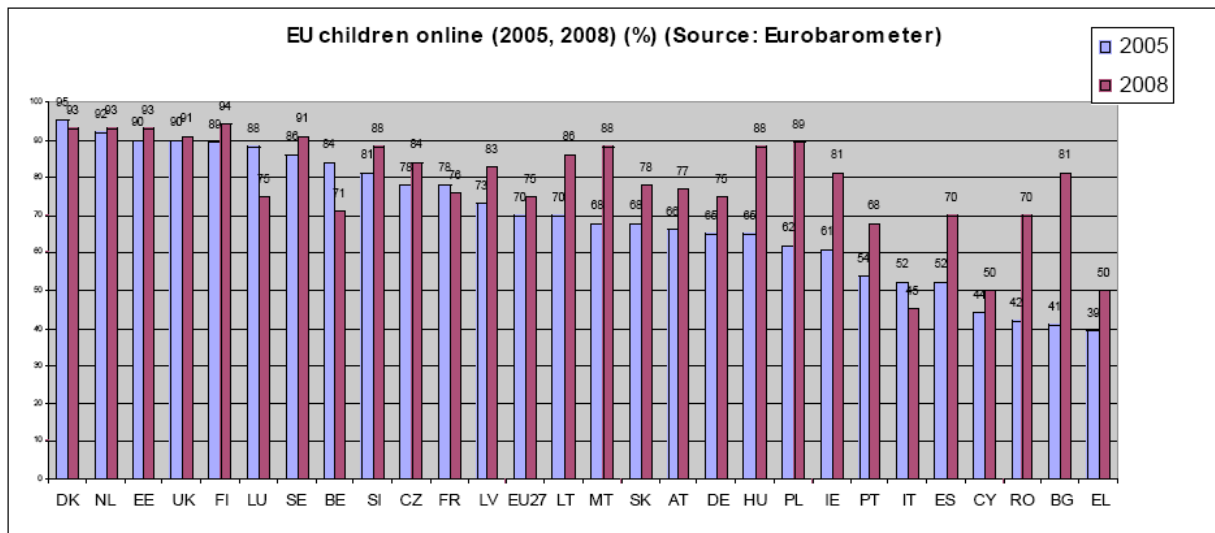

Fig. (2). Internet access of children in 2005 and 2008 in the EU. (Source: Eurobarometer, 2005, 2008).

in correlation with leisure time habits and ties to the environment. According to data from the research, those who spend three hours or more with computer games, online chatting or watching television, prefer to spend their free time with their friends than with the family or alone. The integration of these children into peer groups and their ties to friends are stronger than those of children spending less time in front of the computer (Kerezsi & Parti, 2008: 131) (Fig. (**3**)).

Online communication therefore supplements rather than replaces personal communication (Kerezsi & Parti, 2008: 147–8). This is underscored by the findings of the research of the Swedish national crime-prevention council in 2006 into the habits of Internet use among 14-year-olds (Shannon, 2007: 5). Romanians Cristina Baciu and Mihai-Bogdan Iovu carried out a questionnaire-based survey in 2007, on a sample of secondary school students between the ages 13 and 18 from Cluj Napoca, where 50.4% of CMC users said that

since they have been online, they have had more friendships, and only 7.4% of the respondents said that since they have been online, they have lost interest in other things (the reason for which was not probed by the study). Georgi Apostolov's research into the habits of Internet use among 12- to 14-year-old Bulgarian children established that family ties are strengthened by the fact that children use the Internet more often. This is how the Internet becomes a medium supporting communication within families and small communities (Apostolov, 2008). While in 1998, Kraut and his colleagues were publishing on the destructive effect of the Internet on communities, they retracted in 2001, and found that CMC has community-building powers (Kraut *et al.*, 2002).

The latest school of research examining the effects of CMC now talks of complex correlations, in other words the Internet may be destructive, but overall it is still constructive, and the positive effects outweigh the negative ones
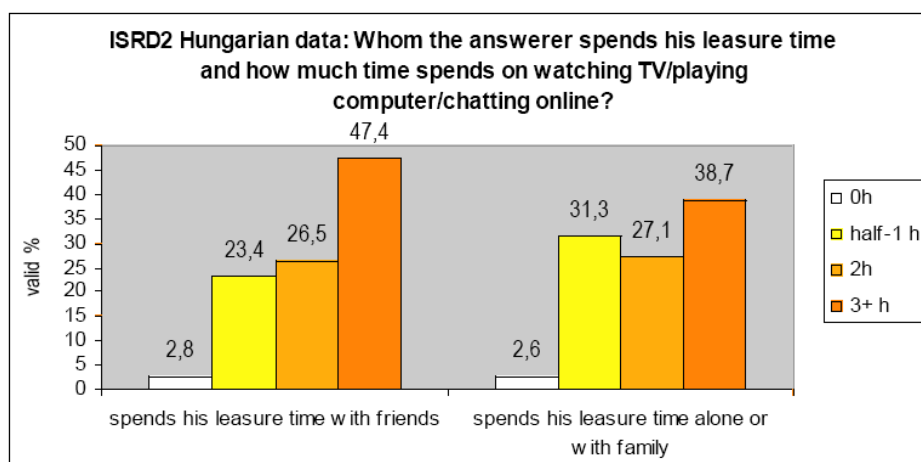
Fig. (3). With whom do children spend their free time, and how many hours do they spend watching television or in front of the computer? (Source: Kerezsi & Parti, 2008: 131)[8]

(LaRose, *et al.*, 2001; Coget, *et al.*, 2002; Gershuny, 2002; Postmes & Brunsting, 2002; Herring, 2004; Bakardjieva & Freenberg, 2004; Boase *et al.*, 2006).

3.2.2. Encounter with Adult Content

While the deterioration of personal relations is treated as a general problem in the media, unintended encounters with harmful contents, contacting persons for the purpose of sexual abuse, and 'dangerous influence' (such as the intentional access to adult contents, online conversations on sexual topics, and meeting strangers known from the Internet in real life) are treated expressly as phenomena with risks for children.

Although the risk of encountering non-illegal but harmful contents (e.g. pornographic, hate-inciting, excluding, self-destructive, etc.) while surfing the Internet is undoubtedly higher today than before the mass popularity of the Internet, the negative effect of encountering these is not entirely obvious. Of all these, we wish to deal more with the encounter with adult (pornographic) contents.

About 70% of the respondents in our study (also) use the Internet to download copyrighted content; many also engage in real-time communication (chatting) and also write homework or school essays in online environments.[9] About 20% of Internet users intentionally look for adult (sexual/ pornographic) websites. It is however reassuring the people students usually speak to online are already known to them in person – relatives and friends. Only about 20% of them use this form of communication (Fig. (**4**)).

As can be seen, every fifth child (20.1%) gave the answer that they (also) use the Internet to find sexual/pornographic websites. This happens despite the fact that 60.7% of the respondents reported that adults around them specifically

warned them away from the offerings of certain websites. Against this warning, 31% of the respondents have already seen such a website. According to the children asked, parents or teachers did not realize this in the majority of the cases (70.1%), but most respondents say they were not punished even if adults realized that they did something forbidden on the Internet against an expressed warning (70.8%). Adults only introduced other restrictions for Internet use in very few cases (7.1%) even after it became clear that the child was surfing websites considered to be dangerous.

As to harmful online content, we may say that the majority of children online have already encountered pornographic materials on the web (Mitchell *et al.*, 2003; Wolak *et al.*, 2007; Flood, 2007). According to the Budapest study, more respondents encountered pornographic contents online *involuntarily* (54.9%), than *voluntarily* (39.6%), but because we are talking about teenagers of 15 to 17, the ratio of adult web pages visited intentionally is still great (Table **1**).

Those who accessed the websites intentionally, found it sexually exciting, interesting or neutral, and only a very small group said that they found the websites disgusting, even though they voluntarily visited them (Table **2**).

From the research report of *Imola Antal* and *Éva László* we can see that the majority of teenagers in Cluj Napoca, Romania, who involuntarily encountered sexual content (60.5%) reacted well to it. Usually (in 58.9% of cases) it had no effect on them at all, and only 21.3% reported that they were sensitively affected by it (Antal & László, 2008: 233). According to a study of the Australian Broadcasting Authority (ABA) 47% of Australian teenagers between the ages 11 and 17 years have already encountered contents online that they found 'aggressive or disgusting' (Aisbett, 2001: 6). The research of the ABA mentioned here reflects the conditions of 10 years ago, when web 2.0 was unknown, and the Internet was in a different stage of development in terms of technology. At the same time, the users typically communicated in a different manner. In the present day, not only has the number of users grown, but the amount of available pornographic content has multiplied, and its accessibility became easier. The mass availability of pornographic content may have

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[8] Due to the way the questions were asked in the survey, time spent watching TV and Internet/computer activities cannot be separated, even though these are obviously hugely different. Other quoted research data and the findings of the Budapest study confirm that there is positive correlation between online time and incorporation into communities.

[9] As we can see in Figure 4, the next most popular online activities are gaming, e-mailing, visiting friend-search websites, searching for information, aimless surfing, visiting websites for youngsters, meeting people in online chatrooms, visiting sexual/pornographic websites, and finally participating in online communities.
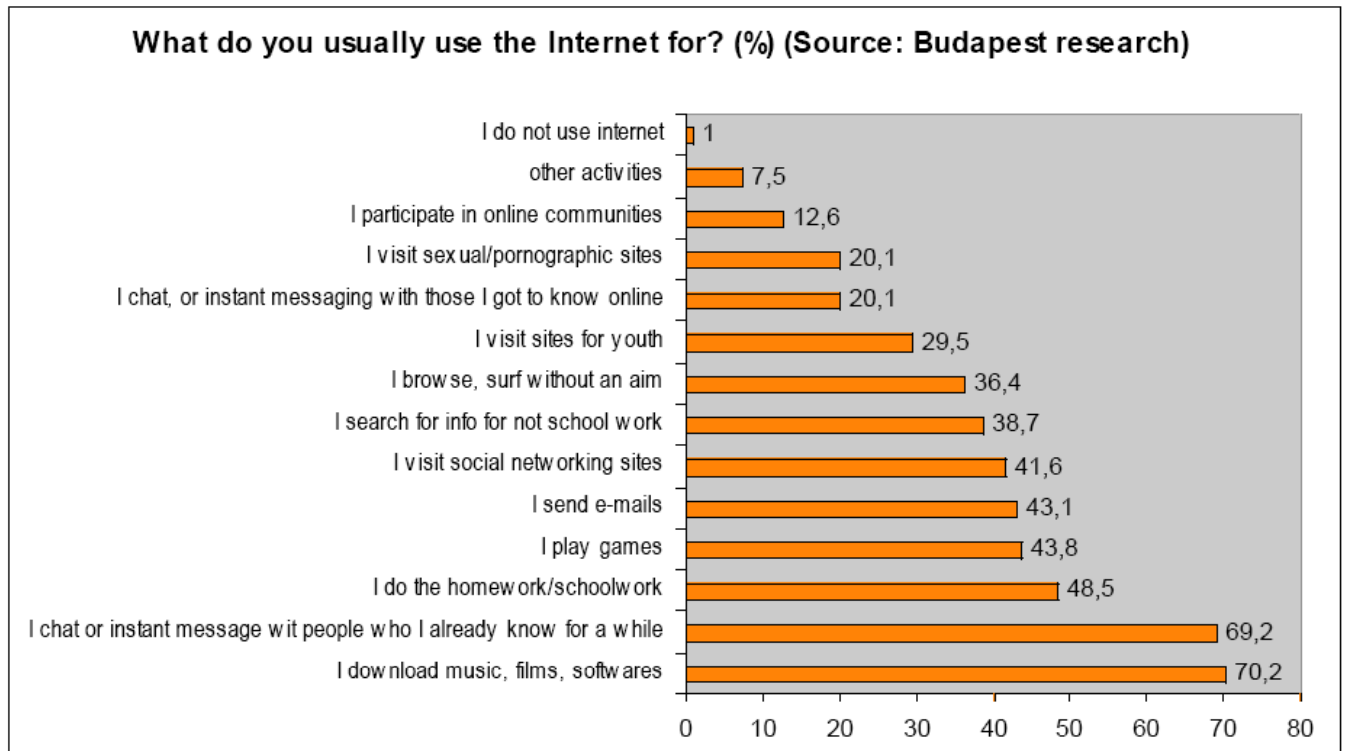
Fig. (4). What do you usually use the Internet for? (Budapest study).

Table 1.   Have Children Encountered Pornographic Websites Voluntarily or Involuntarily? (Budapest Study)

Have You Already Encountered Pornographic Websites? (Budapest Study)								
	Yes		No		No Answer		Total	
Involuntarily	N = 638	54.9 %	N = 402	34.6 %	N = 122	10.5 %	N = 1161	100.0 %
Voluntarily	N = 460	39.6 %	N = 501	43.1 %	N = 200	17.3 %	N = 1161	100.0 %

Table 2.   Effect of Pornographic Websites on Children (Budapest Study)

What Effect did the Pornographic Website that you Opened Have on you (if you Opened it Voluntarily)? (Budapest Study)								
I found it repulsive and disgusting		I found it interesting		I found it sexually exciting		I found it was neutral, it did not affect me in any particular way		Total
N = 25	2.2 %	N = 159	14.1 %	N = 208	18.4 %	N = 128	11.3 %	N = 1129	100.0 %

desensitized users towards extreme contents, and this may well have influenced the effect of extreme contents on the viewer. Even though the Budapest study asked only about tolerance towards pornographic websites, both the Budapest and the Cluj Napoca samples are strikingly more tolerant towards the above-mentioned contents. One of the possible reasons may be that the average age of the Eastern European samples was higher (the average age is 15–16 years in both the Budapest and the Cluj Napoca samples), and on the other hand, the Eastern European surveys (especially the Budapest one) were carried out later, which may also explain the higher tolerance threshold against disturbing contents in

teenagers who use the Internet regularly today. Flood's study also supports this; according to which in 2006, already 75% of Australian youngsters encountered pornographic content involuntarily (Flood, 2007).[10]

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[10] The correct comparison of the surveys cited must of course take in consideration methodological differences. With the exception of the Budapest study, the surveys deal with *involuntary* encounters or *'encounters with contents of an aggressive or disgusting nature'*, while in the Budapest study we looked into children's intentionally accessing/searching pornographic content. The fact that in the latter study only a fraction of the respondents gave a negative answer (5.4% of those voluntarily seeing the contents), and that the majority reported a positive or neutral experience, may have been caused by cognitive dissonance, which does not occur when the encounter is involuntary.

The rising tolerance threshold is comparable to the adaptation process, through which youngsters acquire their Internet skills, e.g. most of their knowledge on the nature of the Internet comes from the Internet itself Fig. (**11**). All in all it can be said that while reservations remain, it appears as though the encounter of youngsters with adult/pornographic contents is significantly widespread and shows a tendency to grow, but its negative, destructive effect – at least according to the account of the youngsters themselves – is not severe.

3.2.3. 'Exposure'. Sharing Personal Data and Contacting People

By 'exposure', we understand various online behaviours of teenagers, such as uploading personal data to a community website, getting to know people in online forums, and conversations of a sexual nature. With these behaviours, the communicating party may expose themselves to sexual abuse or other online experiences of an offensive nature.

During CMC it is quite natural to disclose personal data. *Robert Arnautu*'s study (Arnautu, 2008: 111–2) says that visiting community websites is one of the characteristic features of 'cyber-kids', and also argues that community websites (web 2.0 surfaces) do not leave the users any choice but to share their personal data. Integration into communities, the acceptance of new members, and the popularity of an individual all depend on the amount of personal data shared. *Imola Antal* and *Éva László*'s study claims that 81.2% of children from Cluj Napoca have a profile on a community website, and do not limit the accessibility of their profile to their circle of friends (only 20.4% said that only persons marked as friends may see their profiles). Some 5.8% openly shared their home address, 72.6% named the town where they live, 26.8% shared their e-mail address, and 21.4% even their names. Interestingly, boys were more ready to publish all kinds of personal information (Antal & László, 2008: 236).

In the Budapest study 65% of the respondents had already got to know people online, and a relatively large portion of them share their personal data, which may include revealing their name, sending a picture of themselves, or revealing the name of their school, but fewer of them shared their home address. In 13.3% of cases (155 respondents), the stranger that they met online initiated a conversation of a sexual nature. Only 29.4% (333 respondents) had never met any stranger online Fig. (**5**).

Of those who have already had a relationship ('going out with a girl- or boyfriend'), 11.5% said that they recorded material (images, videos) of a sexual nature of each other; 28.4% said that they put those online, and 23.5% passed the recordings on to third parties. Altogether 40% of those who recorded material distributed the images/videos in one way or another, while 60% kept them for themselves Fig. (**6**). The low levels of responsibility are coupled with a complete lack of legal awareness, whereas all three acts – recording and keeping material of a sexual nature of a person under 18 years of age, handing these over or making them available online – are criminalized both by Hungarian law and the law of other European countries as well (Parti, 2009). It is worth mentioning here that the ratio of those making a recording of themselves and passing it on in some form was still small compared to the whole sample. Of the whole sample, 8.6% made recordings, 2.2% put them online, and only 1.9% passed them on.

3.2.4. Outcome of Meeting Persons Encountered Online

Apostolov quotes a study of the Bulgarian polling institute (Bulgarian National Centre for Study of Public Opinion – NCIOM) published in 2006, according to which 38% of the surveyed Bulgarian children between 12 and 18 years of age admitted to having offline meetings with strangers they had encountered online, but the number may be as high as 60%, as the control question (how many children did NOT have offline meetings with strangers they first met online) was answered 'no' by only 43% (Apostolov, 2008: 158).

The data on 15- to 16-year-olds in Budapest differ only slightly from this. In the Budapest study 34.1% of the respondents admitted to having an offline meeting with someone they first met online, but 52% keep their online contacts online (13.9% did not respond to the question). If we look at corresponding data from other studies, we can see that a growing number of children are meeting their online contacts in real life. In Michelet's research for example, 8% of the 12- to 18-year-olds and 12% of the 18- to 25-year-olds admitted to having had real-life meetings with strangers they first got to know online. Michelet assessed the attitudes of children, adolescents and young adults – all regular Internet users – towards the Internet, including their sense of danger, in cities of Thailand back in 2002 (Michelet, 2003). Even though the above-mentioned Bulgarian, Hungarian and Thai surveys are not directly comparable due to differences in sample size, representativeness and research methodology, it is clearly visible how different is the attitude of today's youngsters compared to that of the generation ten years ago. One of the possible explanations could be that regular Internet use has raised the tolerance threshold.

In the Budapest sample, the stranger met online usually (95.9%) did not lie about his or her age, and only 27 respondents (6.3%) said that they experienced this. In these cases the stranger abused the opportunities offered by the Internet, and used a false age to gain the trust of the respondent. In 10 cases (with 2.3% of the respondents) the stranger first encountered online turned out to be significantly older than what he or she originally said, which only became apparent at the first personal encounter (Table **3**).

In the Budapest study, 78.3% of the respondents said that the stranger was up to all their expectations when they first met in person. Of those who met the stranger in person, 13% said that they were not surprised that the person they got to know online did not live up to what s/he originally said about him-/herself. This suggests that youngsters from Budapest regularly using the Internet are aware that people do not always show their real face. The above-mentioned finding, namely that it is not rare among respondents (27.8% of the whole sample) to communicate false personal data (sex, age) is also a part of that phenomenon. The hidden identity of others does not unnerve them even if they meet the person offline, and the lies are revealed. The fact that among Budapest students there is a double moral standard (i.e. unlike offline communication, online it is to a certain extent natural or accepted to knowingly share deceiving data) is not a
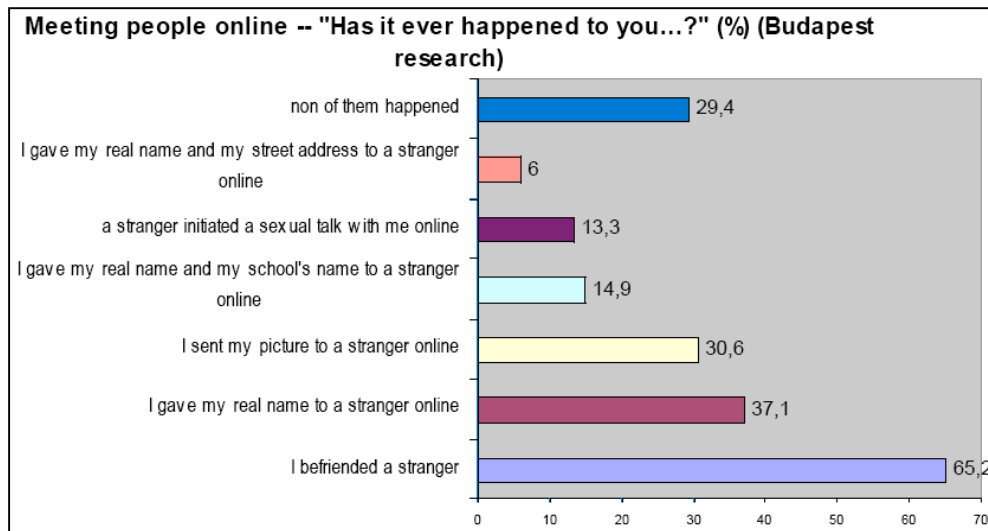
Fig. (5). Meeting people online – 'Has it ever happened to you …?' (Budapest study).
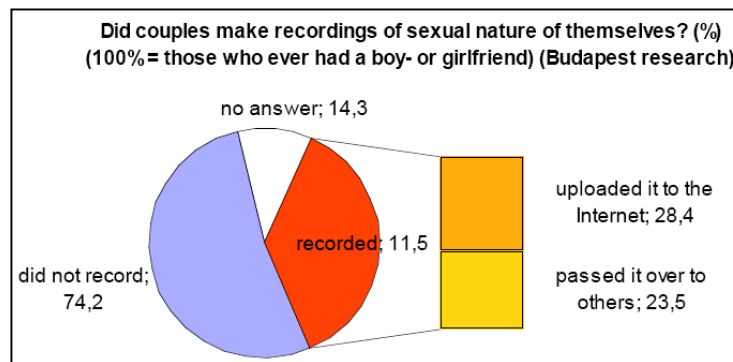

Fig. (6). Did couples make recordings of a sexual nature of themselves? (Budapest study).

Table 3. **The Stranger Met Online was …When you Met in Person (Budapest Study)**

The Stranger Met Online was …when you Met in Person (Budapest Study)				
	N	**%**	**100%**	**Valid %**
Was as old as s/he said	403	34.7 %	421	95.9 %
Was actually 5 years older than s/he said online	13	1.1 %	421	3.0 %
Was actually 10 years older than s/he said online	4	0.4 %	421	1.0 %
Was actually a lot older than s/he said online	10	0.8 %	421	2.3 %

unique occurrence, and is also corroborated by several foreign surveys.[11]

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[11] For example in Michelet's research, youngsters who use the Internet regularly believed that events considered shocking in the real world still count as acceptable online (Michelet, 2003: 16). In the above-mentioned research, 54% of 7- to 11-year-olds said that when they meet someone online they actually consider the possibility that the person may not be what he or she says he or she is. The majority of them are not bothered by this behaviour, and they consider it part of Internet communication. Only 8% said that it was especially stressful or frustrating for them when they learned that the stranger was not what s/he said. Michelet found that the older the children were, the more relaxed they were in their relations with strangers online, and the more likely it was that they see through the stranger's disguise. On the one hand, this prepares the children not to believe unconditionally everything they read online, and on the other, by distorting their real personal data, they may develop a self-defence mechanism, which may protect them from others' abuse (Michelet, 2003).

In the Budapest example the false age data can be best evaluated where the stranger from online turned out to be only 5 years older than what he or she said online (Table **4**). The fact that according to 80.1% of the respondents in this group the stranger was up to all of their expectations, and that 13% did not quite expect what they saw, but the age of the stranger was not a real surprise, only goes to show that the respondents consider an age distortion of plus or minus 5 years to be perfectly acceptable. (The number of cases where the stranger turned out to be 10 or more years older was so low that such an analysis was not possible).

In the Budapest sample, a relatively large portion of respondents, 32.8% went over to the person's place, 3% said

Table 4.   **Was it a Surprise that the Person was Older than she/he said Online? (Budapest Study)**

Was it a Surprise that the Person was Older than s/he said Online? (Budapest Study)				
	It was no Surprise. He was just Like I Knew him/her Online		It was no Surprise, even though I did not Expect it	
S/he was 5 years older than s/he said online	N = 321	80,.1%	N = 52	13%

that they posed for him/her naked, 5.2% said that the contact made recordings of a sexual nature of them, and 12.1% even had a sexual relation with the stranger they had met. It is perhaps not surprising how many have entered into sexual relations, and how many have made recordings of each other, in the light of how many reacted positively to the sexual approaches received online (Table **5**).

The survey carried out in 2007 in Cluj Napoca on a sample of children in classes 7 to 12 (aged 13 to 18) produced similar findings as regards the nature of offline encounters. It established that if there was an offline date with the stranger encountered online, it was not exploitative in nature, but a consensual sexual relationship (Antal & László, 2008).

According to the Romanian research, conversations of a sexual nature online usually occur between youngsters of the same age (with a 5-year age difference at most). These youngsters are old enough (aged 13 to 18) to be driven by natural sexual interest when they meet others online. In the great majority of relations starting this way (98.9%), there was no physical coercion involved; both youngsters consented to the sexual relationship (Antal & László, 2008: 231). The following table also confirms this. If there was an offline date, the stranger was approximately only five years older (this basically means that the other person is 18 to 23 years old, and therefore counts as a peer of the 13- to 18-year-old) (Table **6**) (Antal & László, 2008: 232). Of those who met the youngsters from Cluj Napoca 12.4% said nothing of their actual intentions, and only 7.4% made an indecent offer. Several studies confirm that youngsters are brought together online by personal interest, shared hobbies and age-related characteristics (see for example Wells & Mitchell, 2008; Dombrowski *et al.*, 2007).

3.2.5. Sexting: Approach or Conversation of a Sexual Nature

According to the earlier mentioned study of the Swedish National Crime Prevention Council from 2006 carried out on a nationally representative sample, 30% of 15-year-olds were the subject of online communication of a sexual nature initiated by an adult. While 48% of the girls reported this, only 18% of boys did so (Shannon, 2007). According to the study carried out by Mitchell and his colleagues in 2000 on a sample of US youngsters, 19% of youngsters aged 10 to 17 years using the Internet regularly have already experienced an unsolicited sexual approach online. The group with the greatest risk was that of older and sexually mature adolescent girls (Mitchell *et al.*, 2001). The Budapest sample also contained more girls who have already received sexual approaches online (14.9%), than boys (11.7%), but there were also more boys who answered that question, so the difference between the two sexes in the Budapest sample was not that significant in that respect (Table **7**).

Those who had the experience of a stranger initiating a conversation of a sexual nature with them usually were not embarrassed – or least not enough to break off contact with the stranger (50.7%). Another group of respondents regarded it as harassment, and broke the conversation off, but they were not embarrassed enough to break off the communication with the others (22.9%). Only 31.1% of the respondents talked about it to anyone. Most trusted are friends (17.2%), followed by parents and other members of the family (11.1%), while teachers are at the bottom of the list – children told them about their experiences the least often (2.8%). A total of 7.2% of the victims did not speak of the fact of sexual harassment to anyone (Table **8**).

Even though most respondents in the Budapest sample have not yet received an offer of a sexual nature online, those who have (28%) usually received more than one offer (20%). Of those who have received such an approach, most (N=256; 81%) received it recently (during the last year) Fig. (**7**).
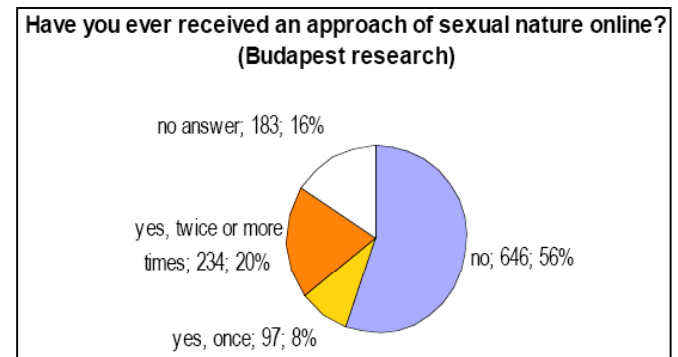

Fig. (7). Have you ever received an approach of a sexual nature online? (Budapest study)

Most approached for a conversation of a sexual nature aged 11 to 14 (64.2%), or 15 to 18 (34.2%). Strikingly, even the age groups 3 to 5, and 6 to 10 are not spared by online sexual harassment (Table **9**).

Children in the Budapest sample reported that they were approached for conversations of a sexual nature most often between the ages of 13 and 15, mainly by persons from their own age group (aged 14–16), or more rarely by older persons (aged 17–18 or 19–25). The perpetrators of harassment were very rarely above 35, just as the victims were rarely under 12 years of age.

In the majority of the cases (62.4%) the person initiating the conversation of a sexual nature was not unknown, and the contact did not come from the Internet. The respondent

Table 5.   At the Offline Date with the Stranger from the Web … (Budapest Study)

At the Offline date with the Stranger from the Web … (Budapest Study)				
	N	**%**	**100%**	**Valid %**
I went over to his/her place	138	11.9 %	421	32.8 %
I posed for him/her naked	13	1.1 %	421	3.0 %
S/he took photos of me	22	1.9 %	421	5.2 %
We had sex	51	4.4 %	421	12.1 %

Table 6.   The Stranger from the Web at the Offline date was … (Research data from Cluj Napoca) (Antal & László, 2008)

Characteristics of the Person the Respondents Met Offline (Cluj Napoca, 2007)		
	N	**%**
Some people I met were at least 5 years older than me	184	20.6
Some people I met were at least 10 years older than me	29	3,3
Some people did not tell their real intentions	111	12.4
Some people made me indecent proposals	66	7.4

Table 7.   Distribution by Gender of Respondents and those Initiating Conversations of a Sexual Nature with them against their will (Budapest Study)

Distribution by Gender of Respondents Reporting 'A Stranger Initiated a Conversation of Sexual Nature with me' (Budapest Study)						
	Yes		**No**		**Total**	
	N	**%**	**N**	**%**	**N**	**%**
Boys	75	11.7	565	88.3	640	100.0
Girls	70	14.9	399	85.1	469	100.0

Table 8.   What did you do when a Stranger Initiated a Conversation of a Sexual Nature with you Online? (Budapest Study)

If a Stranger Initiated a Conversation/Messaging of a Sexual Nature with me… (Budapest Study)		
	Number of Respondents (N)	**Ratio of Respondents (%)**
I broke off the conversation with the stranger, but not with the others in the chat room	36	22.9
I left the chat room	26	16.8
I broke off the conversation with the stranger and told my friends about it	27	17.2
I broke off the conversation with the stranger and told my parents or another adult member of the family living with us about it	17	11.1
I broke off the conversation with the stranger and told my teacher about it	4	2.8
I broke off the conversation with the stranger but did not tell anyone	11	7.2
I continued the conversation	79	50.7

Table 9.   How Old was the Respondent when s/he Received a Sexual Approach Online? (Budapest Study)

How Old were you when it First Happened to you? (Sexual Offer, Invitation to Conversation) (Budapest Study)			
Age	**N**	**%**	**Valid %**
3-5	3	.3	1.1
6-10	11	.9	3.5
11-14	199	17.1	64.2
15-18	97	8,3	31.2
Total number of harassed children	310	26.7	100.0
No answer /not harassed	851	73.3	
Total number of respondents	1161	100.0	

and the person initiating the conversation knew each other in person. A large number of persons initiating such conversations (in 47.4% of all the incidents) were women. But 43.6% of respondents said it was a man initiating the conversation, and a further 9% were unsure of the sex of the conversational partner. The 'embarrassment scale' shows a positive picture, that is, 69.2% of those involved in sexual conversations (N=272) did not in the least perceive the conversation as unpleasant, and only 7.8% of them felt very embarrassed by it.

In *Michelet*'s research, 17% of 12- to 25-year olds thought that it is not dangerous to talk about sex with a stranger online, as communication on the Internet is anonymous (Michelet, 2003). The Swedish study found that the double moral standards developed by children in relation to Internet experiences protects them as a second shield from psychological exposure (frustration, stress, psychological harm) even in cases where they encounter a sexual approach during their online communication (Shannon, 2007: 9).

Antal and László's research carried out on a sample of youngsters from Cluj Napoca did not find any positive correlation between the amount of personal data shared and the sexual approaches received, as those who shared more personal data actually received fewer approaches (Antal & László, 2008: 237). Because online communication of a sexual nature is regarded as a risk factor of sexual abuse (which according to the Budapest study shows no correlation with actual sexual exploitation), the authors of this study believe that actual, physical sexual abuse is more likely to occur in the family, or the perpetrators are trusted friends, and only very few children are groomed through the Internet. Based on the findings, it seems that the idea of sharing personal data being a risk factor is only a myth, and cannot be confirmed (See on the same Wolak *et al.*, 2008).

However, *Antal and László* state that according to research, children in Eastern Europe start receiving sexual approaches or experience someone trying to initiate a sexual conversation with them online at a later age. While according to research carried out in the US 13- to 14-year-olds are the age group most at risk (Wolak *et al.*, 2006; 2007; 2008; Mitchell *et al.*, 2007), in Eastern Europe, it is the 15- to 16-year-olds (Antal & László, 2008: 241). It should perhaps be remarked that Eastern European children possibly also get

approaches, but *a)* there has been no research that would have surveyed sexual attacks against children younger than 15 years of age in an online environment (the research in Cluj Napoca was aimed at students from the 7th to 12th class years at school, but 67.7% of the sample consisted of the 15–18 age group), and *b)* it is not certain that risk-taking online behaviours coincide with vulnerability.

3.3. Characteristics of Internet Use of Children in Recently Joined EU Member States

3.3.1. Less Legal Awareness, Less Punishment

In the Budapest research, almost every fourth respondent (22.5%) said that they have already done something illegal online (in their own opinion). About half of the respondents were at either end of the scale – 23.9% had only done something like that once in the last 12 months, while 27.2% a hundred times.

The majority of respondents usually act neither illegally nor in any deviant way online. At any rate, those who admitted to have done something illegal online were to a large extent those who claimed to have entered a protected website using a password they got from somebody else or by cracking the password (which are crimes), or those that shouted or behaved badly in an Internet chat room (not a crime, only not tolerated by the community). It is striking that the use of swearwords is the most widespread deviant behaviour of youngsters in online communication Fig. (**8**). This confirms the findings of Ritter and colleagues from their 2000 study, repeated in 2002, which established that youngsters usually express their emotions more extremely when chatting, often using swearwords (Ritter *et al.*, 2004). However, the stronger emotional reaction of youngsters does not in our view stem from the changing online environment, but is rather an age-related phenomenon.

The legal awareness of the Hungarian population in relation to information technology has already been surveyed by ISRD2 in 2006. According to that study, neither children (the sample included children aged 13 to 15) nor their parents were aware of what they may and may not do in an IT environment. In the ISRD2 sample for example, one-third of the children asked (32.5%) said that they gave some thought to the fact that their downloading of music and film is illegal. (This activity in Hungary is legal if the copyrighted material
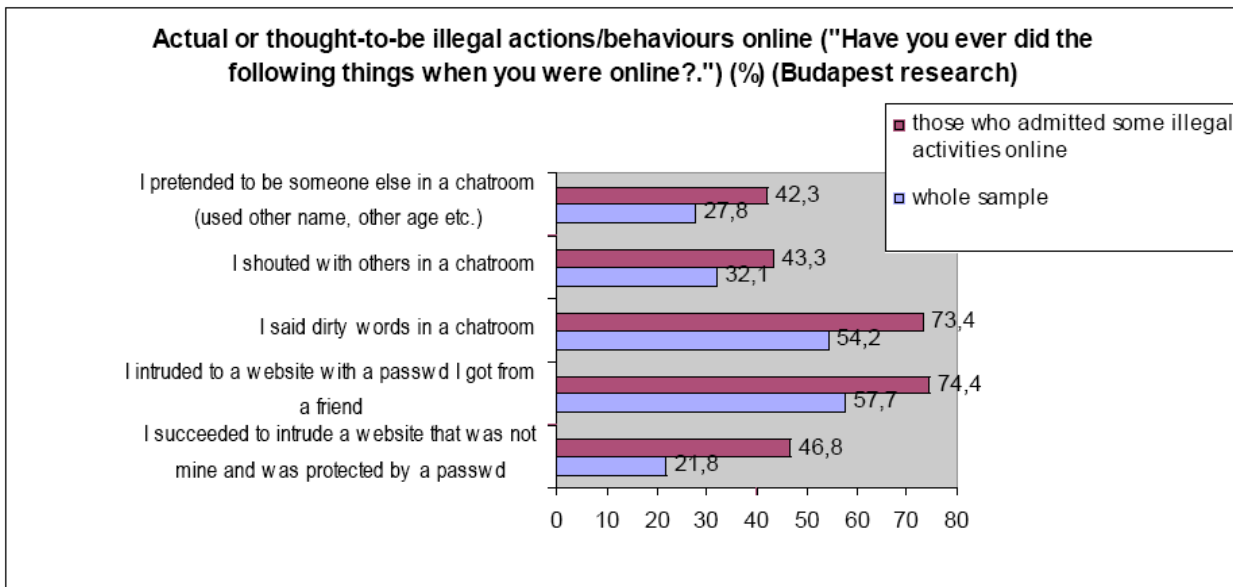
Actual or thought-to-be illegal actions/behaviours online ("Have you ever did the following things when you were online?.") (%) (Budapest research)

Fig. (8). Actual and thought-to-be illegal actions online (Budapest study).

is downloaded for private use and not for financial gain.) The students' glosses added in the margin of the sheets still indicate some degree of legal awareness, or society's attitude towards certain behaviours. Downloading copyrighted material is considered a crime by the average man in the street, yet it remains popular. This also shows that a higher proportion of children were punished at home for 'harmless' downloading than for hacking (unauthorized intrusion into computer systems), which is an actual crime. The reason for this may be that those who punished the children were not aware that downloading is actually legal. (Kerezsi & Parti, 2008: 132–4). The Budapest study does not look into IT-related deviancies, and only assessed the extent to which children follow their parents' advice. From the data it transpires that if they visited a website against the express prohibition of their parents or teachers (N=94; 100%), the great majority of respondents (N=62; 70.8%) were not punished. The number of cases where parents introduced sanctions (password protection or filter software) was insignificant (N=6; 7.1%).

3.3.2. Self-Teaching as a Way of Learning Internet Use

Adults' wanting legal knowledge is matched only by their lack of risk-awareness regarding Internet use. This is by no means a Hungarian peculiarity, but a general truth that applies to EU member states that joined in 2004 and later: parents know less about the Internet than their children, and accordingly make fewer attempts to protect themselves from online dangers compared to parents in older EU member states Fig. (**9**).

There are also significant differences between old and new member states in the methods of protection and control. Personal forms of protection (sitting with the child in front of the computer, or restrictions such as forbidding the child to upload personal data to the Internet, to talk to strangers online, to meet people in person that s/he first met online, etc.) are mainly characteristic of older member states, while in new member states, only a smaller portion of parents make the effort to go through these rules with their children, or to

have any rules at all. Filtering and monitoring software is popular in neither the old, nor the new member states (Antal & László, 2008), but the reasons for that vary. While in old member states parents prefer a personal conversation with the child to prepare him or her for online threats, in new member states, they usually do not even know about software solutions, and consequently do not make use of them. The most popular method of control in new member states is restricting the child's computer time (Antal & László, 2008), which does not fend off any threats to the child, nor does it raise awareness of these (Eurobarometer, 2008).

Not surprisingly, in new member states children know more about the Internet – and as a result also about online threats – than their parents, because in these countries a higher proportion of children use the Internet on a daily basis than do adults Fig. (**10**) (Eurobarometer, 2008).

Bearing that in mind, it is not remotely surprising that in new member states most information for youngsters about how to use the Internet safely actually comes from the Internet itself or their experience of use, and not from adults. In the Budapest study, many added as a personal remark that they had learned about the nature of the Internet during its regular use, e.g. not to believe unconditionally everything that they find online. It is, however, reassuring that parents, families and schools are striving to provide children with useful advice, but even so, 16% of respondents said that they never received any advice on online threats Fig. (**11**).

In the Budapest study, most respondents evaluated their parents' Internet skills to be intermediate (34.9%), or more advanced (43.6%). Some respondents (16.8%) said that their parents are experienced Internet users, and know the medium well Fig. (**12**).

Perhaps precisely for this reason, the parents of the surveyed population regard the Internet so much a part of their daily lives, that 76.7% set no rules for it. Parents generally setting a time limit was reported by 20.1% of the respondents (N=219), about a third of them banned their children
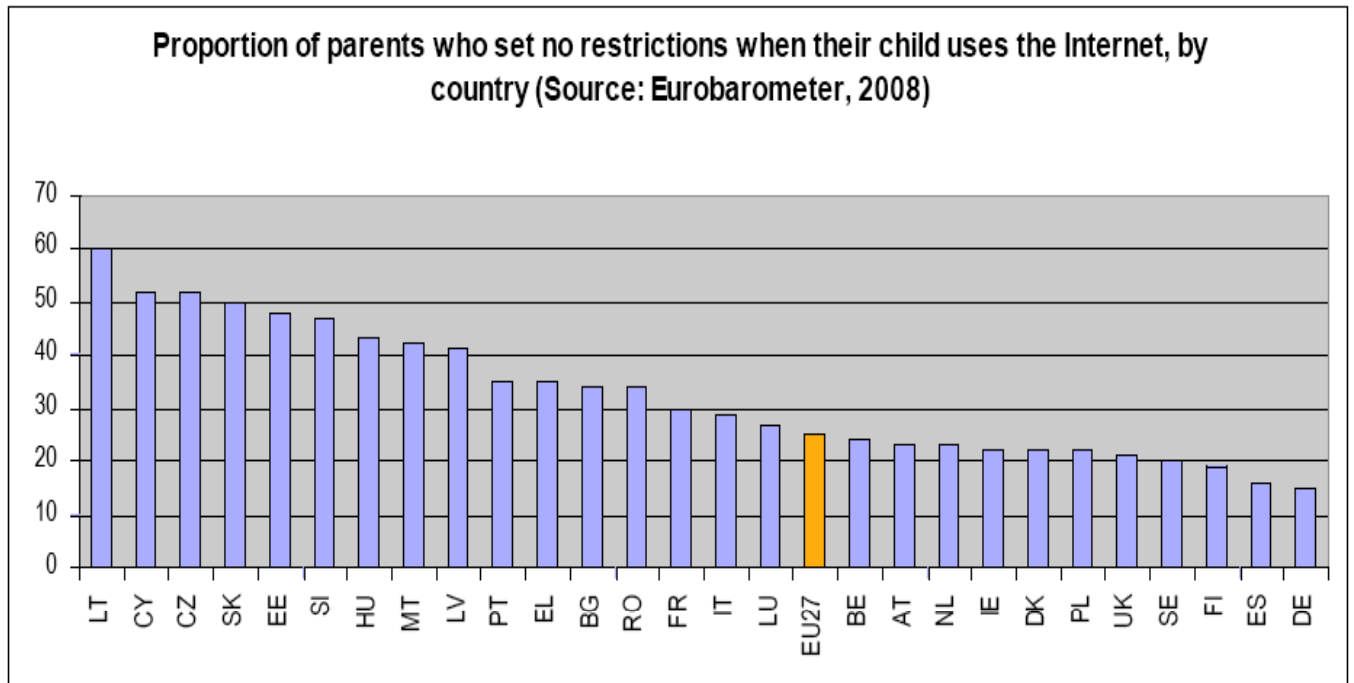
Proportion of parents who set no restrictions when their child uses the Internet, by country (Source: Eurobarometer, 2008)

Fig. (9). Proportion of parents who set no restrictions when their child uses the Internet, by country (Eurobarometer, 2008).
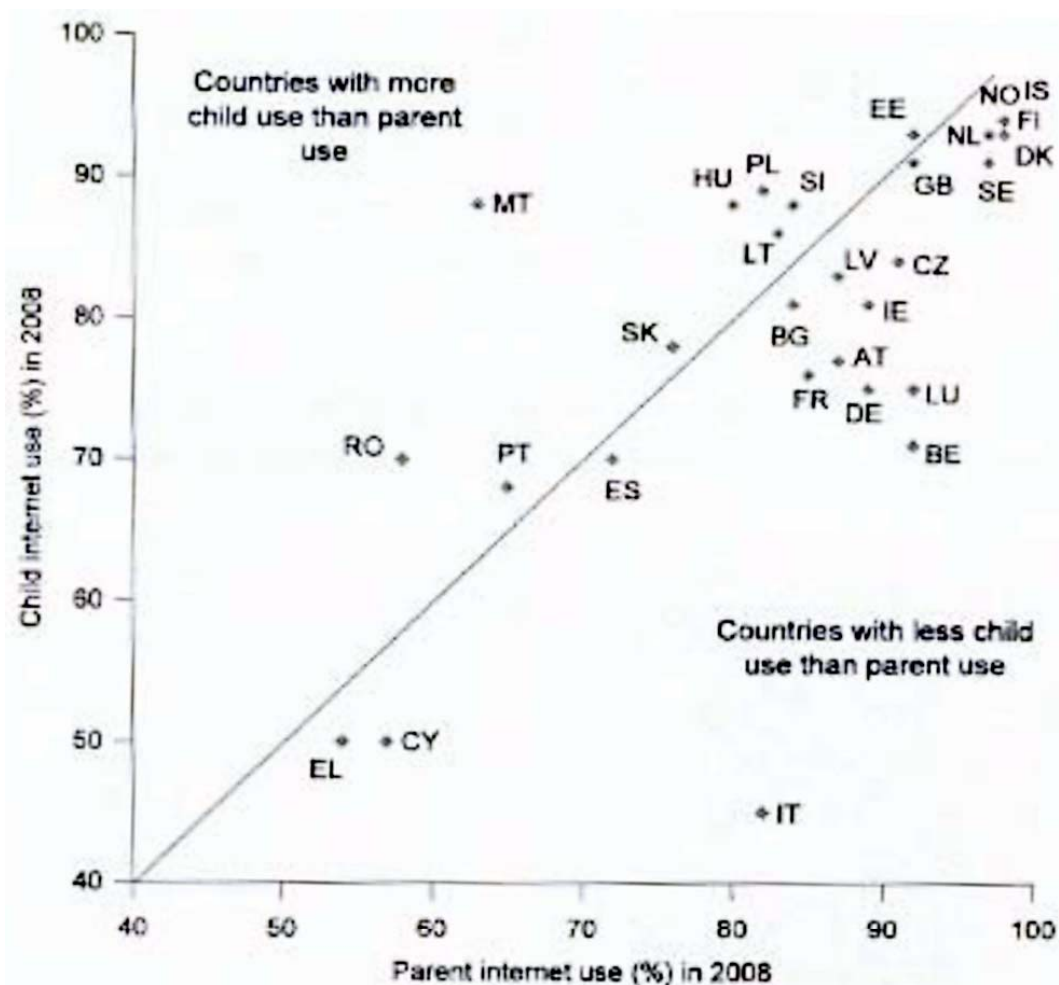

Fig. (10). Proportion of child and parent Internet use, by country (Eurobarometer, 2008).
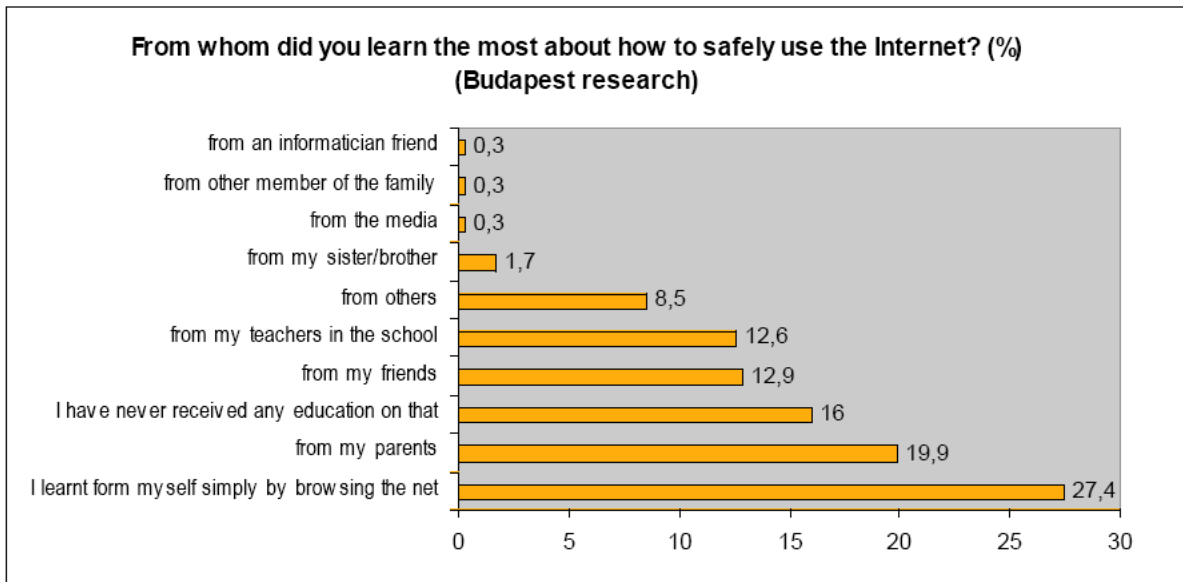
From whom did you learn the most about how to safely use the Internet? (%) (Budapest research)

Category	Value
from an informatician friend	0,3
from other member of the family	0,3
from the media	0,3
from my sister/brother	1,7
from others	8,5
from my teachers in the school	12,6
from my friends	12,9
I have never received any education on that	16
from my parents	19,9
I learnt form myself simply by browsing the net	27,4

Fig. (11). From whom did you learn the most about how to use the Internet safely? (Budapest study).

How would you rate your parents' Internet usage skills? (1: they have no Internet skills at all; 5: they use Internet frequently, so they know it quite well) (Budapest research)

- 1; 6.2%
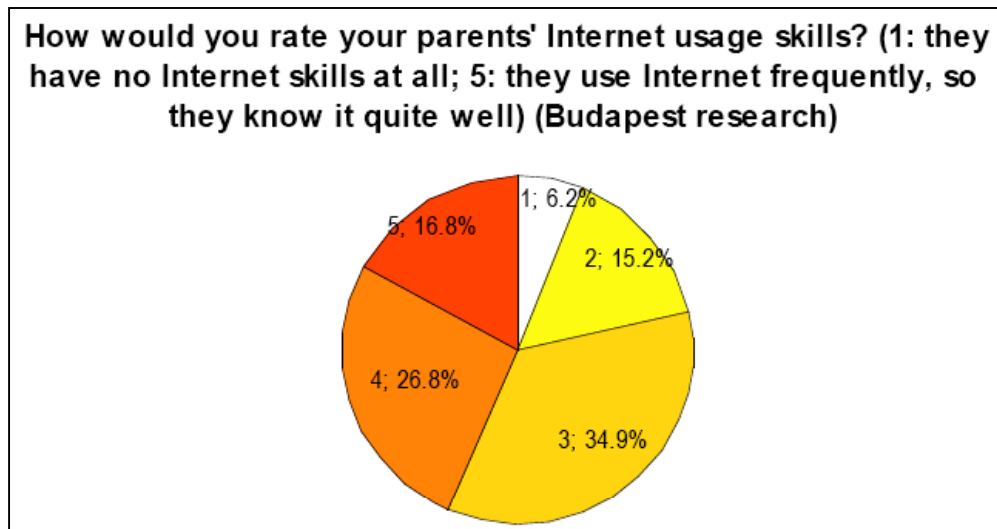- 2; 15.2%
- 3; 34.9%
- 4; 26.8%
- 5; 16.8%

Fig. (12). How would you rate your parents' Internet skills? (Budapest study).

from putting their own personal data online, and 23.3% banned children from certain websites. Compared to that, the number of children who are banned from meeting online contacts (16.2%) is insignificant. A further 10.2% are not allowed to get to know strangers online (in chat rooms). Downloading music and films is so widely accepted by the adult population (too), that only 3.4% ban their children from doing it. Only 5.3% of households use filtering software Fig. (**13**).

The idea that the more parents know about the Internet, the more rules they set for its use, can only be applied with some distortion, for in families where the parents are the most experienced Internet users, protection against online threats is the least widespread. The parents of children who rated their parents' user skills at four are the most likely to set rules (Table **10**).

Those parents who are experienced in Internet use set the rule that the child may only register on any website with

their consent, they ban downloading of music and films, and use filtering software. These are indicative of more advanced skills, e.g. that downloading copyrighted content may be a crime, and that certain websites may pose a threat to the computer (viruses, unsolicited mail) and to the child (disclosing personal data may give rise to abuse). On the other hand, they demand active user-defined protection, such as the installation, configuration and regular update of filtering software. With more experienced parents, their skills also show in more refined methods of protecting their child and computer, but a time-restriction for computer use remains as a main rule. The rules *'I may not meet strangers in real life that I met online'*, and *'I may not chat with / get to know strangers'* are still applied by less experienced parents, but only as the fourth or fifth most popular rule, applied only by about 15-23% of the parents. Only 4-10% of children are instructed to inform their parents if they find disturbing content online, which is also confirmed by one of our earlier
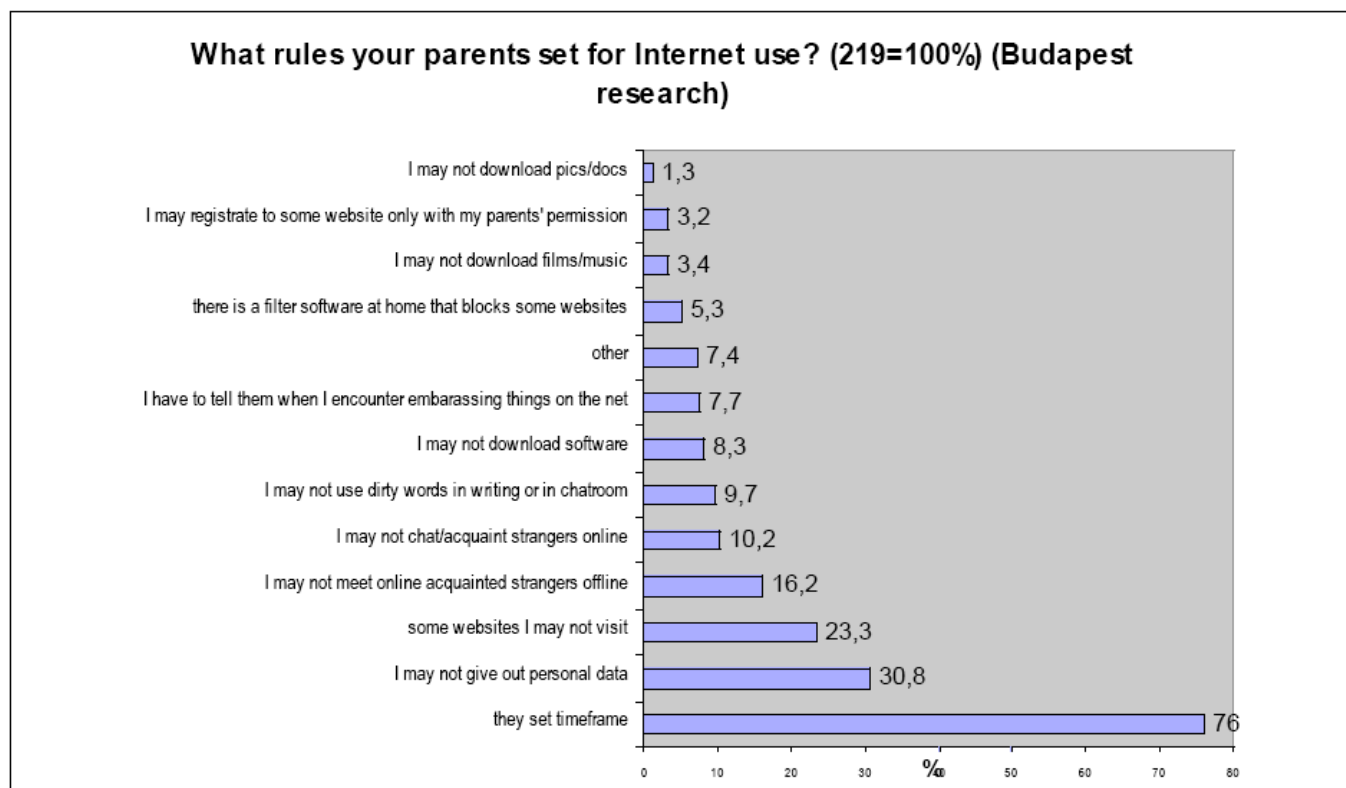
Fig. (13). What rules do your parents set for Internet use? (Budapest study).

Table 10.   Parents' Experience in and Rules Set for Internet Use (Budapest Study)

Do Parents Set Rules for Internet Use Depending on How Experienced they are as Users? (Affirmative Answers) (Budapest Study)									
1 (They have no Internet Skills at All)		2		3		4		5 (They are very Experienced Users)	
N	Valid %	N	Valid %	N	Valid %	N	Valid %	N	Valid %
11	15.6	30	18.2	66	17.9	73	25.5	38	20.7

findings, namely that only a small fraction of respondents tell adults when they find disturbing or aggressive – e.g. pornographic – content online or if they are sent such content.

The number of parents setting any rules for Internet use is the lowest in the group with digitally illiterate parents, while the most rules are set by parents who have average skills in Internet use. The international survey of Eurobarometer confirms our research findings regarding the correlation of the regularity of parents' Internet use and the rules they set. According to this, parents with average user skills do the most to make their children feel safe online (Table **11**).

The fact that only a few parents set their children the rule they must report any disturbing phenomenon (content or harassment) is an indicator of the lack of sensitivity in the adult world towards harmful content online. As a result, only a few children tell adults if they encounter such online content. According to *Michelet*'s research, one sign of parents' irresponsible attitude is that the most common 'therapy' in these cases was 'more time with the child' and even then they did not strive to raise the child's awareness of online threats (Michelet, 2003).

In the new EU member states (those joined the EU in and after 2004), awareness-raising programmes for students were launched later than those in the older member states of the EU (or they still have not started), so children were long left to their own devices. As a result most of their information on how the Internet works and what dangers it hides comes from the Internet itself. The fact that adults in newly joined member states – partly due to their lower SES and their households having less IT equipment – know a lot less about the Internet also contributes to the above. So while children in old member states receive proper information at school and from the media, and can easily talk about any given situation with their parents, their peers in newly joined member states do not have any of this. They talk mainly to their friends and peers about their online experiences. This may be a reason why they are a lot more daring in their online communication. They chat up people very easily, meet them in person after encountering them online, and are more

Table 11.   What Do Parents do When their Child uses the Internet at Home? (Source: Eurobarometer, 2008)

	Ask/Talk to Your Child about What they Do or did Online	Make Sure you Stay Nearby when your Child is Online	Sit with Your Child when they Go Online	Check the Computer Later to see which Sites your Child Visited	Check Whether your Child has a Profile on a Social Networking Site	Check the Messages in your Child's E-mail Account/ IM Service
What do parents do when their child uses the Internet at home? (Eurobarometer, 2008)						
Parents' Internet Use						
Non-users	60%	44%	28%	24%	17%	18%
Occasional users	75%	65%	40%	44%	29%	26%
Frequent users	76%	60%	36%	44%	31%	24%

likely to think it acceptable if the stranger lies about his actual intentions.

3.3.3. Stronger Manifestation of Double Standards

According to research, regular online communication and participation in online communities leads to the appearance of a 'second moral standard', applied online by netizens, that is citizens using the net. This second moral standard basically means a more permissive interpretation of offline social norms. Most users will adhere to norms, but live by different norms during online communication. For example, they would not steal a mobile or a bag, etc., but have no qualms about downloading copyrighted software from others (P2P networks) online, passing it on and copying it, entering a protected website, or offending others in an online community. This second moral standard is based on (sometimes only perceived) anonymity, the idea that online we are 'invisible'. The individual does not have to take responsibility for what he does, he does not have to face his fellow netizens if he has offended them, because the offence did not affect the flesh-and-blood person, and the damage caused is not material or at least difficult to define. The phenomenon that *Michelet* calls the double moral standard can be observed among adults using the Internet as much as among children who are regular Internet users, in their positions both as perpetrators and victims of deviance. Children also find it easier to offend someone else online (e.g. taunting others, uploading pictures of others and changing their personal data without permission, ridiculing others, etc.), since they do not see the face of the victim. They may neutralize their actions through repudiating the person offended, the impalpable nature of the damage caused, and shirking responsibility. In the NCIOM research quoted above, Bulgarian teachers said that children who regularly spend long hours on the Internet lack the ability to empathize and to read faces, they cannot perceive those little signals that people communicate non-verbally or in writing, and it is a source of much conflict during offline communication. This insensitivity acquired in online environments is what online harassment and bullying stem from (Apostolov, 2008: 159). One of the side-effects of frequent Internet use is that users start to communicate offline more like they do in an online space; they bring with them the lax behavioural norms practiced so well online, according to which people can be offended, and objects may be taken or vandalized. The double moral standards show especially well among children, because they do not have mature inhibitions, and the system of offline moral brakes is still in development.

The existence of the double moral standard, however, provides a second protective shield, since the communicating parties are not present in person, so harassment 'does not cut into flesh', the person is physically unharmed, and cannot be physically harmed. In *Michelet*'s research 17% of 12- to 25-year olds believed that it was harmless to speak about sex with a stranger online, because communication is anonymous on the Internet (Michelet, 2003).

The double moral standard also shows in the greater tolerance towards the other communicating party online. A comparison of research findings from the year 2000 and from almost ten years later reveals that a larger proportion of children meet online strangers offline as well, and they can better manage the lies told during online communication. So for example children from Budapest simply get over the fact that the stranger they met online lied about his or her age, sex and original intentions, and it was their knowledge of the Internet's nature that helped them to do so.

We assume that children in newly joined EU member states, who acquired their knowledge mostly in a self-taught way during Internet use, or from peers and not adults, may well be better aware of the nature of the Internet and online abuse than their counterparts in the old member states, who set out to discover the Internet with somewhat doctored and filtered information. The difference between old and new member states shows in the tolerance threshold of children to the Internet, the varying degrees of their self-defence mechanisms (children in newly joined member states take online risks more readily), and the simpler management of dangerous situations (apparently they get over the shock of sexual contents and approaches more easily).

4. SUMMARY AND CONCLUSION

Our comparison shows clearly that children living in countries joined the EU recently are exposed to greater risks during Internet use (Table **12**), due to the following factors:

1) There is a greater digital divide between the adult and the underage population than in older member states of the EU;

Table 12.   Classification of European States According to the Ratio of Children Using the Internet and the Online Risks (Source: Livingstone & Haddon, 2009: 17)

Classification of European States According to the Ratio of Children Using the Internet and the Online Risks (Source: EU Kids Online, 2009: 17)			
		Children's Internet Use	
Online risk	Low (65% and less)	Medium (65%-85%)	High (85% and more)
Low	Cyprus, Italy	France, Germany	
Medium	Greece	Austria, Belgium, Ireland, Portugal, Spain	Denmark, Sweden
High		Bulgaria, Czech Republic	Estonia, Iceland, Netherlands, Norway, Poland, Slovenia, UK

2)   Parents are less aware of the threats as users, so they do not, or do not fully prepare their children for the risks of Internet use;

3)   The drastic spread of Internet use, its integration into people's daily lives can still only be witnessed among primary and secondary school children, and happened too quickly for any awareness-raising programmes or campaigns to be drawn up (e.g. Bulgaria, Romania, Estonia, Greece, Poland, Portugal, Hungary, Livingstone & Haddon, 2009: 23);

4)   Education on safe Internet use started later in countries that joined the EU recently (or is still missing completely), children receive mostly only technical help at school, but the development of their social skills is not up to par.

At the same time, children in recently joined countries of the EU are driven to greater independence in solving any problems related to Internet use, be they technical or related to encountering illegal or harmful content, because their parents are lagging behind in Internet skills.

As for the dangers of Internet use, the media can illustrate and support these with numerous news items, but based on research data, we cannot say that the Internet is any more dangerous than other media. The Internet is certainly significantly different from earlier media, and these differences also explain the special nature of its threats. One significant such difference is the main feature of CMC, interactivity. This is at once a source of disadvantages and advantages. It is an advantage that we can find any content easily, but it is a disadvantage that we cannot know how reliable these contents are. It is an advantage that we may easily discover new communities, join and thereby boost our self-esteem, but we may also easily turn this into trouble, if we disclose intimate, personal data, because it makes us vulnerable to harassment and data abuse. The Internet teaches us independence, not only in respect of new knowledge, its authenticity check, befriending new people, but also identifying dangerous situations in an early phase. As users keep building online contents, online communication also needs the active contribution of users. Anyone trying to abuse our data, harassing us or bombarding us with unwanted questions and requests can only reach his goal if we actively play along, and put our information at his disposal without a second thought. It is in this interactivity that the advantage and disadvantage of the

Internet lies, and this is why it teaches us to be particularly careful (Table **13**).

An obvious advantage of online communication is that children may get to know people with less risk, which is especially beneficial at a very young age (National Analysis for Bulgaria in the Safer Internet for Children: Quantitative Study, 2007: 31). It can also be observed that children approach online content, and strangers they meet online, with a healthy scepticism, e.g. they may verify the correctness of any information more than once. This teaches the children a healthy scepticism for the offline world as well. Since the Internet is based on the principle of total equality (everybody has the same chance to upload content, to express and publish their thoughts, everybody can react to others' thoughts, etc.), this teaches young users to apply this principle in other areas of life as well.

The research referenced in our study was carried out in the last 10 years. When comparing data, it should be borne in mind that research from 10 years ago cannot be directly compared to current research, because the nature of the Internet was different then, and so users had different habits. There were no Web 2.0 contents, and interactivity was less of a priority. Direct communication and exchange of information between users was less popular than today. Despite all this, there are certain similarities between the findings of old and new research. It is also interesting to witness how, due to technical development, users are becoming increasingly tolerant towards extreme contents they used to find disturbing.

We do not wish to pretend that Internet use is free of all dangers, or that this new medium does not conceal new or increased risks and damaging influences. But again, riding a bicycle is not without its dangers, yet it never stirs moral panic, or forces us to ban our children from their bicycles. Rather, fully aware of the actual dangers and without hysteria, we strive to find the right conditions for doing what we do safely, find suitable rules, education and means of protection.

On the basis of the data accumulated to date, we believe that the Internet is no more dangerous than riding a bicycle, and may be less dangerous than living in a family. As elsewhere, we believe that probing to find out about reality and the evidence-based programmes and interventions that rely

Table 13. Types of Internet-Related Risks, their Advantages and Disadvantages

Types of Internet-Related Risks, their Advantages and Disadvantages		
Name of the Risk	**Disadvantage**	**Advantage**
1. Mass information database	Nobody controls where the information comes from. Information on the web may easily be misleading.	Educational opportunities extended. Independent (self-taught) learning techniques receive greater emphasis. Independence, help in growing up.
2. A lot of harmful, e.g. adult content is available to children	They may think it is normal (and it becomes the measure). Encounters with these may cause confusion and psychological damage.	It is 'remote' enough not to affect the onlooker. Less harm, less damage.
3. Opportunity to share personal data ('self-advertising') e.g. on community networks (Facebook, MySpace, etc.)	Participation in the community is the basis of the risk itself. The more data you publish about yourself, the more you expose yourself (to data abuse, cyber-bullying, harassment, etc.)	The members of the community are informed of the harassment, and can protect each other. The network of contacts mirrors the degree of inte-gration into the community, and integration is also a protection mechanism.
4. Presence of illegal and harmful communities (hetero- or auto-aggressive communities, e.g. xenophobia, eating disorders, suicide, exclusion)	The victim plays an active role in getting into a dangerous situation. Opportunity to simply join the communities. Becoming part of a deviant community also gives the individual a sense of belonging.	Communities are public, open to everyone. The environment of the endangered person may learn about the dangerous situation. (e.g. stopping online harassment, suicide prevention; Wykes, 2010)
5. Networking opportunities (web 2.0 - real-time communication, community websites, etc.)	Anonymity – Not everybody is what they say they are, which can be a source of abuse (e.g. meeting people in chat rooms, community web-sites).	The danger may remain remote. For example the target of the sexual offer may more easily say no, and may retain their relative anonymity.

on the findings are important. In this way, we can help our children surf the World Wide Web freely and safely.

REFERENCES

Aisbett, K. (2001). The Internet at home: A report on Internet use in the home. Sydney, N.S.W.: Australian Broadcasting Authority.

Antal, I., & László, É. (2008). Sexual victimization online. In M. Bar-bovschi, M. Diaconescu (Eds.), *Teenagers' Actions and Interactions Online in Central and Eastern Europe*. (pp. 227-46). Cluj Napoca: Cluj University Press.

Apostolov, G. (2008). Bulgarian teenagers' behaviour online: Changing social patterns and growing violence? In M. Barbovschi, M. Diaconescu (Eds.), *Teenagers' Actions and Interactions Online in Central and Eastern Europe*. (pp. 149-66). Cluj Napoca: Cluj University Press.

Arnautu, R. (2008). Cyber-kids – life-styles and character. In M. Bar-bovschi, M. Diaconescu (Eds.), *Teenagers' Actions and Interactions Online in Central and Eastern Europe*. (pp. 101-16) Cluj Napoca: Cluj University Press.

Bakardijeva, M., & Feenberg, A. (2004). Virtual community: No killer implication. *New Media & Society*, 6(1), 37-43.

Barbovschi, M., & Diaconescu, M. (Eds.). (2008). Teenagers' actions and interactions online in Central and Eastern Europe. Cluj Napoca: Cluj University Press.

Boase, J.B., Horrigan, J.B., Welman, B., & Rainie, L. (2006). The strength of Internet ties. The Internet and email aid users in maintaining their so-cial networks and provide pathways to help people face big decisions. Pew Internet and American Life Project, Retrieved August 24, 2010 from http://www.pewinternet.org/~/media//Files/Reports/2006/ PIP_ In-ternet_ties.pdf.pdf

Coget, J.F., Yamauchi, Y., & Suman, M. (2002). The Internet, social net-works and loneliness. *IT & Society*, 1(1), 180-201.

DiMaggio, P., Hargittai, E., Neuman, W.R., & Robinson, J.P. (2002). Social implications of the Internet. *Annual Review of Sociology*, (27), 307-36.

Donoso, V., Ólafsson, K., & Broddason, T. (2009). What we know, what we do not know. In S. Livingstone, L. Haddon (Eds.), Kids online: Oppor-tunities and risks for children. (pp. 19-30) Bristol, UK: Polity Press.

Dombrowski, S.C., Gischlar, K.L., & Durst, T. (2007). Safeguarding young people from cyber pornography and cyber sexual predation: A major di-lemma of the internet. *Child Abuse Review*, 16(3), 153-70.

Eurobarometer 2006: Special Eurobarometer 250 "Safer Internet" (2006). Wave 64.4-TNS Opinion & Social. European Commission. Retrieved August 23, 2010 from: http://ec.europa.eu/information_society/ activi-ties/sip/docs/eurobarometer/eurobarometer_2005_25_ms.pdf

Eurobarometer 2008: Flash Eurobarometer 248 – Towards a safer use of the internet for children in the EU – A parents' perspective. Analytical re-port Conducted by The Gallup Organisation, Hungary upon the request of Directorate General Information Society and Media. Retrieved August 23, 2010 from: http://ec.europa.eu/ public_opinion/flash/ fl_248_en.pdf

Flood, M. (2007). Exposure to pornography among youth in Australia. *Journal of Sociology*, 43(1), 45-60.

Franzen, A. (2003). Social capital and the Internet: Evidence from Swiss panel data. Kyklos 56(3), 341-60 Retrieved March 31, 2011 from http://onlinelibrary.wiley.com/doi/10.1111/kykl.2003.56.issue-3/ issuetoc.

Gershuny, J. (2002). Social leisure and home IT: A panel time-diary approach. *IT & Society*, 1(1), 57-72.

Herring, S.C. (2004). Slouching toward the ordinary: Current trends in computer-mediated communication. *New Media & Society*, 6(1), 26-36.

Hetherington, H. (1958). Foreword. In H.T. Himmelweit, A.N. Oppenheim, P. Vince (Eds.), *Television and the child*. (p. 27) London: Oxford Uni-versity Press, (cited by Donoso *et al.*, 2009: 27).

Kirsh, S.J. (2006). Children, adolescents and media violence. A Critical Look at the Research. London: Sage.

Kerezsi, K., & Parti, K. (Eds.) (2008). Látens fiatalkori devianciák. Fi-atalkori devianciák egy önbevalláson alapuló felmérés tükrében –

ISRD2. [Latent youth deviances – youth deviances in the view of the International Self Report Delinquency Study 2 (ISRD2)] Budapest: ELTE ÁJK & OKRI.

Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (1998). Internet Paradox. A social technology that reduces social involvement and psychological well-being? *American Psychologist*, 53(9), 1017-31.

Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox, revisited. *Journal of Social Issues*, 58, 49-74.

LaRose, R., Eastin, M.S., & Gregg, J. (2001). Reformulating the Internet paradox: Social cognitive explanations of Internet use and depression. *Journal of Online Behaviour*, 1(2) Retrieved August 22, 2010 from: http://www.behavior.net/JOB/v1n2/paradox.html

Livingstone, S., & Haddon, L. (Eds.). (2009). Kids online: opportunities and risks for children. Bristol, UK: The Policy Press.

Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. (Eds.) (2010). Risk and Safety on the Internet. The Perspective of European Children. Initial Findings from the EU Kids Online Survey of 9-16 Year Olds and Their Parents 2010 Retrieved December 13, 2010 from http://www2.lse.ac.uk/media@lse/research/EUKidsOnline/EUKidsII%20(2009-11)/EU%20Kids%20Online%20II%20Reports.aspx

Lüders, M.H., Brandt P.B., & Dunkels, E. (2009). Risky contacts. In S. Livingstone, L. Haddon (Eds.), Kids online: opportunities and risks for children (pp. 123-34) Bristol, UK: The Policy Press.

Michelet, I. (2003) Our Children at Risk Online: The Example of Thailand. In Michelet, I. (ed.) A survey report. Our children at risk online. *The example of Thailand*. (pp. 7-43) Bangkok: ECPAT International.

Mitaya, K., & Kobayashi, K. (2008). Casual relationship between Internet use and social capital in Japan. *Asian Journal of Social Psychology*, 11, 42-52.

Mitchell, K.J., Finkelhor, D., & Wolak, J. (2001) Risk Factors for and Impact of Online Sexual Solicitation of Youth. *Journal of American Medical Association*, 285(23), 3011-14.

Mitchell, K., Finkelhor, D., & Wolak, J. (2003). The exposure of youth to unwanted sexual material on the Internet. A national survey of risk, impact and prevention. *Youth & Society*, 34(3), 330-58.

Mitchell, K., Ybarra, M.L., & Finkelhor, D. (2007). The relative importance of online victimization in understanding depression, delinquency and substance abuse. *Child Maltreatment*, 12(4), 314-24.

National Analysis for Bulgaria in the Safer Internet for Children: Quantitative Study, 2007, (cited by Apostolov, 2008: 158).

NCIOM: 2006 Study by the Bulgarian National Centre for Study of Public Opinion Referred by Apostolov, 2008: 152.

Parti, K. (2009). Gyermekpornográfia az interneten. Child Pornography on the Internet. Miskolc: Bíbor Publishing.

Postmes, T., & Brunsting, S. (2002). Collective action in the age of the internet. Mass communication and online mobilization. *Social Science Computer Review*, 20(3), 290-301.

Prensky, M. (2001). Digital natives, digital immigrants. On The Horizon, MCB University Press, 9(5), 1-6.

Quan-Haase, A., & Wellman, B. (2004). How does the Internet affect social capital. In M. Huysman, V. Wulf, V. (Eds.), *Social Capital and Information Technology*. (pp. 113-32) Cambridge, MA: MIT Press.

Ritter, A., Fábián, Zs., Pillók, P., & Hoyer, M. (2004). Felmérés a magyarországi Internet-használatról: betegség, vagy korosztályra jellemző

tünet? A survey on the Hungarian internet use: An illness or a symptom characteristic for an agegroup? *Psychiatria Hungarica* 2004(2).

Schramm, W., Lyle, J., & Parker, E. (1961). Television in the lives of our children. Stanford, CA: Stanford University Press. (Referred by Donoso *et al.*, 2009: 27).

Shannon, D. (2007). The Online Sexual Solicitation of Children by Adults in Sweden. In English summary of Brå report No. 2007: 11, Stockholm: The Swedish National Council of Crime Prevention.

Starker, S. (1989). Evil influences: Crusades against the mass media. New Brunswick, New Jersey: Transaction Publishers.

Subrahmanyam, K. (2007). Adolescent online communication: Old issues, new intensities. Cyberpsychology: Journal of Psychological Research on Cyberspace, 1(1) Retrieved August 25, 2010 from: http://www.cyberpsychology.eu/view.php?cisloclanku=2007070701&article=1

Symantec studies, 2010: Online biztonság családoknak. A net nemcsak játék. [Online safety for families. The net is not just a game.] 2010. június 15. Híradó Online. Retrieved December 13, 2010 from http://www.hirado.hu/Hirek/2010/06/15/11/Online_biztonsag_csaladoknak__a_net_nem_csak.aspx

Virág, Gy. (2004). Rape. In F. Irk, K. Kerezsi (Eds.), *Victims and Opinions II*. (pp. 71-83) Budapest: National Institute of Criminology.

VMR Kids, 2009: A 15 év alattiakat vizsgáló tracking kutatás. [VMR Kids: Tracking of online behaviour of children below 15] Conducted by NRC Informationline, Budapest. Retrieved December 13, 2010 from: http://nrc.hu/termekek/vmrkids

Wellman, B., Boase, J., & Chen, W. (2002). The networked nature of community: Online and offline. *IT & Society*, 1(1), 151-65.

Wells, M., & Mitchell, K. (2008). How do high-risk youth use the Internet? Characteristics and implications for prevention. *Child Maltreatment*, 13(3), 227-34.

Williams, D. (2007). The impact of time online: Social capital and cyber-balkanization. *Cyberpsychology and Behaviour*, 10(3), 398-406.

WIP, 2006-2009: the World Internet Project's Reports retrieved December 12, 2010 from http://www.worldinternetproject.net/#reports [13.12.2010].

Wolak, J., Mitchell, K., & Finkelhor, D. (2006). Online victimization of youth: five years later. National Center for Missing and Exploited Children. Study conducted by the Crimes Against Children Research Center University Of New Hampshire. National Center for Missing and Exlpoited Children. Retrieved August 22, 2010 from http://www.unh.edu/ccrc/ pdf/CV138.pdf

Wolak, J., Mitchell, K., & Finkelhor, D. (2007). Unwanted exposure to online pornography in a national sample of youth Internet users. *Pediatrics*, 119(2), 247-57.

Wolak, J., Finkelhor, D., Mitchell, K., & Ybarra, M.L. (2008). Online "predators" and their victims. Myths, realities and implications for prevention and treatment. *American Psychologist*, 63(2), 111-28.

Wykes, M. (2010). Harm, suicide and homicide in cyberspace: Assessing causality and control. In M. Yar, Y. Jewkes (Eds.), *Handbook of Internet Crime*. (pp. 369-94) USA & Canada: Willan Publishing.

Ybarra, M.M., & Mitchell, J. (2008). How risky are social networking sites? A comparison of places online where youth sexual solicitation and harassment occurs. *Pediatrics*, 121(2), 350-7.