

INTERNET SAFETY: INVESTIGATING PARENTS' AND CHILDREN'S PRACTICES

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Abstract

The Internet has become a part of our daily life. It affects many aspects of our lives and up to a point it has become a necessity. Many children now access the 'world' of the Internet at very early stages by experimenting and interacting with it. If no precautions are taken, children and young people might come across serious risks and become victims of Internet crimes. The current study explores parents' level of awareness in relation to their children's Internet use as well as Internet dangers and whether or not they are interested in being more informed on this topic. Furthermore, it explores children's motives in using the Internet, parents' motives for providing the Internet to them, and their interest in establishing a safe child web site in their household environment in order to control and monitor their children's Internet use.

Introduction

The Internet has become a part of our daily routine. It affects every aspect of our lives and to an extent it has become a necessity. It has dynamically entered peoples' working environments, entertainment fields, means of communication, and education systems and it has facilitated, eased, and improved the quality of our lives. Using the Internet at home and at school students are born and raised having technology as an integral part of their daily activities. As with any other technological advancement there are benefits that we can take advantage of and risks that we need to identify and be careful of such as child sexual harassment and child pornography that most people knew nothing about when the Internet first appeared. A lack of awareness can lead affect children negatively. If no precautions are taken, children and young people might come across serious dangers and became the victims of Internet crimes.

Internet use has grown considerably over the last decade. The rapid progress and improvement of technology has become a core part of the sociological and the formal educational system in many countries. Each new generation of Internet users is more skilled, capable and advanced than the last one (Davidson & Martellozzo, 2008). Parents tend to believe that the Internet positively influences their children's learning and helps them to improve their performance at school. At the same time parents are afraid that their children might become victims of electronic crime or be addicted to it and isolated (Livingstone & Haddon, 2006). Parents' awareness regarding Internet threats and safety should be raised and ultimately become part of their "family values." The creation of such culture in the family environment would enable children to protect themselves. Moreover, Internet providers should offer along with Internet access a variety of technological facilities, means and tools in order to enable and assist children to surf in a safe environment (Staksrub & Lobe, 2010).

The value of this research reflects on the importance of the safety in cyberspace. The level of awareness of Cypriot parents relating to their children's Internet usage and online dangers, their interest to be more informed and their interest to establish a protective tool for Internet safety has been researched to a limited degree until now. Given the above, as well as the continuous reference in the Media regarding online threats, incidents with pedophiles, electronic crimes, the media warnings of online hazards, the rapidly increased number of users, mostly children, in Cyprus develops the foundation to explore parents' awareness on Internet usage and threats. Parents' awareness is an extremely important aspect of children safety when using the Internet.

Main Aim and Research Objectives

The purpose of the study is to explore parents' level of awareness in relation to the threats children and young people are exposed to when using the Internet. Additionally, it explores the parental interest in raising their awareness on Internet use and threats and investigates their interest in establishing in their household environment safety measures and a secure Internet system in order to protect their children. Specifically, the research objectives of the study are: a) to measure the level of awareness and perception of Cypriot parents in regards to their children's Internet usage and its variation among the population according to their age, the age of their children, their level of education, the years of Internet experience, and the point of their children's Internet access; b) to analyze parents' awareness in relation to Internet dangers and demographic variation such as age and the level of education; c) to explore the reasons parents allow Internet access to their children as well as children's views and motives; d) to investigate parents' level of interest in raising their awareness of Internet use and threats in relation to their age, their level of education and the years of Internet experience; and e) to examine parents' and children's interest and willingness to develop house rules on

Internet use and the development of a safe web site that will provide an extra protection for their children's Internet use.

Literature Review

Internet and Children

Google, MSN, Facebook, Search Engines, Blogs, Wikis! We live in a digital world and for too many of us all the above are part of our daily life activities (Eteokleous & Pavlou, 2010). Elementary and secondary students (mainly youth under the age of 18) constitute a great part of this digital world and are characterized as digital natives (Prensky, 2001) and digital learners (Murugesan, 2009; Oliver & Carr, 2009; Richardson, 2009) since they were born and grown up in the Information Age. They feel extremely comfortable in using the Internet and Web 2.0 tools and use them extensively in order to play Internet games; participate in social networking websites (i.e., Facebook, MySpace, Twitter, Delicious, Flickr, LinkedIn, Live Journal); use e-mail; search for information; communicate through chat rooms; join in blogs and discussion forums; develop their own websites; and become net-writers through wikis, etc. (Burnett, Dickinson, McDonagh, Merchant, Myers, & Wilkinson, 2003; Hargadon, 2009; Murugesan, 2009). On the other hand, the digital immigrants (Prensky, 2001) are those who were already grownups while the technology and the Internet were evolving. Nevertheless, in order to survive they adjusted to the new setting and made technology an integral part of their lives, frequently using it for various purposes: educational, personal, and professional. In many countries Internet technology is an integral part of children's daily life activities and has also become part of the education systems. Given that new generations are frequently using the Internet, it can be said that they are more aware of its use and features than older generations (Davidson & Martellozzo, 2008). Finally, the findings of recent research applied to 21 European countries showed that 75 % of European children use Internet and the rate continues to grow (Livingstone & Haddon, 2009).

Children's Use of the Internet

Children can benefit extremely from the Internet combining education, fun, entertainment, and socializing. Children can develop their knowledge in areas such as wording, spelling, grammar, and learning new words, or/and improve their arithmetical, numeracy, and mathematical skills (Crocodile Clips Ltd, 2010). The Internet also allows children to gather information for school projects. This is done mainly by using the various search engines such as Google, Yahoo, Ask Jeeves, Alta Vista, and others. Children may have access to literature, music and movies through established virtual and online libraries and obtain various kind of information. Also, at universities and colleges, libraries are equipped with Internet technology enabling and providing access to articles from scholarly journals and numerous resources. The Internet provides children the opportunity to communicate with people from all around the world mainly using chat rooms

such as MIRC, Skype, MSN, and various forums in web sites. Using the above, they meet and get in touch with people from different countries and keep in contact with people (e.g. class mates who have now gone abroad and relatives/friends who are far away from home). In addition, it is supported in the literature that especially teenagers discover through the Internet that they can share experiences and the same range of emotions with other teenagers and this makes them feel like they belong somewhere and that Internet is a place to “go” and meet others (Perebinossof, 2008). This improves the removal of racial boundaries and enables children to understand each others’ differences and attributes. People online tend to communicate more with friends and others via the Internet rather than people in the physical environment (Fuchus, 2008). With the use of Internet children can share resources and ideas (text, images, music, video, etc.) with people who have the same interests. Finally, the main motivation for parents to provide Internet access to their children is for educational purposes (Gattiker, 2001). Along the same lines, parents have a strong belief in the Internet as a vehicle for their children’s advancement and preparation for their professional life.

Internet Threats

Surfing the Internet can be a really fun, educating and a relaxing experience but it can also be a harmful experience. It can be described as the modern Pandora Box that has opened a whole new world of dangers. Given the extensive use of technology, youth are daily exposed to numerous Internet threats, such as inappropriate content (i.e., pornography), exposure to sexual predators, credit theft, cyber bullying, grooming, phishing, hacking, and unsafe downloads. According to Britton (1998), learning how to make bombs and drugs, being influenced by hate groups, and becoming the subject of online harassment are some additional threats that kids might face when using the Internet. With just a few clicks they can have access to any kind of image, video and article that might exist and get in touch with inappropriate content and contact. Internet access at schools has added a new dimension of educational opportunities — it has also added a new dimension of hazards.

Research Methodology

The study employed a mixed method approach with quantitative and qualitative data collected (Creswell, 2003). Questionnaires were used to collect the quantitative data and focus groups were organized for the qualitative data collection. The study’s target population consisted of parents living in non-occupied urban areas, specifically in Nicosia and Larnaca. Easy access was the reason for focusing on these two areas of the island. Non-probability sampling was used to distribute 400 questionnaires to parents living in the two areas. The response rate was 55% since 220 completed questionnaires were returned. The questionnaire consisted of two parts using mainly closed questions. The first part included demographic related questions. The second part of the questionnaire

included questions such as parents' Internet use, years of parents' Internet use, children's use, place in the house where the Internet is used, frequency (hours and days) of children's Internet use, reasons for providing Internet access to children, parents' awareness of Internet threats, interest in being further informed, and interest in a safe website.

The focus groups were organized as soon as the results of the questionnaires were analyzed. Specifically, the focus groups took place in May, 2010. Eight focus groups (four focus groups with parents and four focus groups with children) were organized. In each focus group 8 persons (either parents or children) were involved. Given the above, a total of 32 parents (ages 28–46) and 32 children (ages 9–16) participated in the focus groups. On average each group interview was 1–1.5 hour long. The focus groups mainly discussed open-ended questions in an attempt to provide parents and children with the opportunity to freely and openly express themselves on the subject under investigation. Focus groups were conducted in order to get insights and to analyze in depth the concepts under investigation from both parents' and students' points of view (Kvale, 1996). More specifically, within a focus group, children, surrounded by peers to whom they could freely and without fear express themselves, share experiences on Internet surfing, the reasons and the motives for their use of the Internet, their awareness of the existing online dangers, and whether they had been threatened (if yes how) online. As the four focus groups for parents were targeted to investigate and explore parents' views and awareness regarding the Internet, their children's Internet use, Internet threats, their interest in learning more, and their interest in developing a safe child website, a survey method for collecting data needed to be chosen. The qualitative data collected from the questionnaires and the group interviews groups were analyzed with the method of continuous comparison of data (Morehouse & Maykut, 1994). For the purposes of this study the results of the qualitative analysis (focus groups) are presented.

Focus Groups Process

All 32 children who participated in the focus group sessions had their parents' agreement and permission. The meetings included an open-question session in the form of a discussion whilst the children had the freedom to simultaneously interact with the Internet through a laptop. The children were already informed about the discussion subject. Initially, the questions were general in order to establish a friendly, more communicative and relaxed interaction with the children. The use of a laptop was integral in seeing how the children were drawn to the Internet and where their focus was in using Internet technology. It was also a means to spark a debate rather than a very strict interrogation between children and the researcher. This also offered more instinctual responses from the children who were not prompted to answer or discuss Internet safety through a formal way.

The majority of parents participating in the four focus groups were females (24 out of 32), their age was 31–40 (15 out of 32) and 41–50 (3 out of 32) with 30 out of 32 being either college or university graduates the rest 8 were gymnasium

locum graduates. From all four focus groups only two parents were not Internet users. The focus group sessions took place in four different households in an informal environment. They were based on a set of questions formulated to initiate and expand discussion. A couple of the questions investigated the knowledge, experience and awareness of Internet usage and to what level the parents were informed of the dangers and crimes of the Internet.

Findings

Internet Uses

Children from early ages (i.e., 5 years old) become familiar with Internet technology mainly for entertainment and socializing purposes and less for educational purposes. Children reported that they use the Internet at home and at school but mainly at home for socializing purposes and less for homework and overall educational purposes. From the analysis it is supported that Internet use and way of use can be categorized by age. Specifically, children's ease of use with the Internet technology as well as their increased technology knowledge and skills level showed that they began to use the Internet at very early stages of their development. Additionally, the results indicated that the younger the children were, the earlier they started using the Internet. The focus groups revealed that younger children using Internet between the ages of 5–8 years old and the children of the slightly older generation started to use Internet when they were around 11 years old.

Almost all children began using the Internet by playing online games. Their most popular game is Club Penguin of Mini Clip which is a massive multiplayer online role play where children-players use cartoon penguins as avatars, and they waddle around, chat, play mini-games, and participate in other activities with one another in a snow-covered virtual world (Miniclip SA, 2010). They were triggered to play by watching others playing either a young relative or their parents. Younger children were very excited while playing and talking about the games. It seems that they enjoyed interaction and competition with other online players whilst they were putting an effort to succeed high scores at games. When it comes to games with digitized violent content, some of the children did not recognize its severity since they were very comfortable and acted natural in relation to that. Observing the children while using the Internet, it can be supported that they were very attracted to online games, and some of them were addicted. Older children seemed to be more excited when they were younger since they knew all about the games but now they prefer socializing online with their friends via various social networks (i.e., Facebook). Children seemed to be fond of funny video clips which made them laugh and spend pleasurably their time.

All children said that they were encouraged by school teachers to use the Internet. Therefore, their school teachers assigned homework and in-classroom exercises

and projects that require the use of the Internet mainly for gathering information in various subjects (e.g., geography, history, science).

Internet Dangers and Children

Children appeared to be at some point informed about the existence of Internet dangers by their parents and their school environment. All children mentioned that they have discussed Internet dangers with their parents. Parents mainly focused on the danger of “talking with strangers.” It can be said that parents mainly discussed not talking to strangers since it appears to be the most well-known and most frequently presented danger by the media. Additionally, it is the one that the majority of the parents understand, especially those who do not use the Internet and are not aware of the multiple dangers that an Internet user is exposed to. Some of the children mentioned that they were also informed at school mainly by guest speakers and their teachers that they must be very careful while surfing on the web. Children seemed also to be informed on the relative incidences that are transmitted by the media.

Parents' Awareness on Internet Dangers

The majority of the parents reported using the Internet for either professional and/or personal uses. Nevertheless, less than half of the parent participants reported having high digital/Internet literacy skills which would make them feel comfortable with Internet use. Even though all of the parents appeared to be really worried about the Internet dangers, and could also name several Internet dangers (talking to strangers, child seduction and abuse by adults, exposure to child pornography, exposure to sex and violence, money frauds, etc.), some of them could not realize what the Internet dangers are and how they can be harmful to their children. It can be said that the majority of the parents are aware of the existence of Internet dangers without realizing their severity. They mainly gathered information about Internet dangers from the media (e.g., advertisements) and word of mouth and not from personal Internet use and experience. Consequently, the discussion revealed that parents developed an acceptable level of awareness, but their level of awareness cannot be characterized as an in-depth one. They managed to gather valuable information on possible Internet dangers, incidents related to Internet crime, and safety measures. Advertising on media on Internet safety was very useful and motivated parents to look deeper into the matter and seek for more information.

Parents' Concerns

The parents who were less experienced with Internet use felt that they were not really familiar with the existing dangers and seemed more concerned and worried than the parents that can be characterized as Internet literate. It can be suggested that parents' experience and Internet literacy influences their level of awareness on Internet threats and their children's Internet use. Additionally, it has been revealed that a lot of the parents are mainly concerned about their children chatting with strangers and giving their personal details such as address, telephone numbers, date of birth, etc. It can be said that this happens since this is the easiest

Internet danger to comprehend. The age of children seemed to influence the parents' concerns and level of awareness regarding their children's Internet use. It can be supported that the younger the children are the more worried the parents are and the more they want to monitor their online activities.

Parents' Experience with Internet Dangers

Eight out of the 32 parents (25%) of the participants had bad personal experience with the Internet. They were victims of grooming (talking to strangers, being deceived by them and meeting them) and of cyber bullying and were exposed to pornography at young ages. Because of their experiences these parents appeared to be alert and well informed about the dangers and the possibilities of any unwanted incidents that might occur during Internet surfing.

Protective Measures

Protective measures were taken at school and at home. The majority of the parents mentioned that they discussed Internet dangers with their children and made efforts to monitor their children's Internet use and access by putting on restrictions and limitations. Some of the parents looked like they were trying to protect their children by frightening them about the Internet and forbidding them to use certain programs such as Facebook, MSN, etc. instead of confronting them. This is a result of the parents' lack of awareness. Many of the parents appeared not to be in a position to deal with this issue. On a more positive note, some of the children (mainly the older ones) seemed to know how to monitor some settings on their social network profiles such as Facebook and MSN in order to protect themselves from being exposed to strangers. However, children seemed not to be protected at school and at home regardless of the safety measures applied. Specifically, even if schools applied safety systems several weaknesses were revealed since some of the children mentioned that they were exposed to inappropriate material (i.e., sexual content). It is notable to mention that those who have 'broken' the security codes were also children (focus groups participants' classmates).

Conclusions & Recommendations

Practical and scientific implications were discussed based on the results of the study. First of all, the distinction between digital natives (children) and digital immigrants (parents) is apparent in this study. The majority, if not all, of the children participating can be characterized as digitally literate and specifically Internet literate. The same cannot be said about the parents. This characterization can be made of very few of them. However, being digitally literate does not imply awareness of the Internet dangers and knowledge of protective measures. Consequently, it is very important to develop parents' Internet literacy as well as to raise the awareness of parents and children about Internet dangers and help them fight illegal and harmful online content and contact by applying protective measures. Informed parents feel more confident and secure about discussing

Internet dangers with their children and developing communication channels in order for their children to feel comfortable reporting to them any incident. Additionally, they will be in a better position to set Internet-use house rules. Children should not feel threatened to lose their Internet-use privileges if they discuss Internet threats or an incident with their parents. Children should not be excluded and restricted from the opportunity to explore and benefit from the online world and the great opportunities provided.

All the above suggest the development of “safe Internet culture” at school and at home. Parents’ and school’s role is extremely important in developing this culture. To achieve this, parents’ should be trained accordingly to develop Internet literacy as well as to develop their awareness on Internet threats. Informative lectures and seminars can be offered at schools and youth and community centers in collaboration with academicians, educators, researchers, and the police. Children can also take the lead and become their parents’ trainers on Internet use. This will bring them close to each other and help them establish a better communication as well as develop or increase feelings of trust, respect and understanding. The lectures and workshops should focus on Internet use and threat awareness and of course on how to protect ourselves. For some parents, it might be the case that they need first to learn how to use the Internet in order to better realize Internet threats and second to what extent these threats might be harmful to their children. Consequently, besides the informative lectures, seminars and/or workshops, lessons should be provided to the parents on Internet use.

Additionally, the Ministry of Education and Culture in collaboration with the Pedagogical Institute (institute responsible for in-service teachers’ professional development training) should take some measures towards teachers’ and children’s Internet safety awareness. First of all, Internet should be integrated within the curriculum and classroom activities as an educational tool. Given the above, the students will have the opportunity to experience its educational value. At the same time, children should be educated on Internet use and threats as well as how to protect themselves when being involved in-classroom and school activities. The study’s results also suggest that students need to develop critical thinking skills in order to be able to identify and avoid getting in touch with harmful content and contacts. Students should be in a position to protect themselves and use the Internet properly for educational and personal purposes and later on for professional purposes. Besides the above, advertising real incidents related to Internet threats will raise public’s awareness.

Additionally, it is extremely important to set Internet-use-home rules (i.e. have the computer in a common house area until the children are in position to protect themselves) without, however, excluding and restricting children’s opportunity to explore and benefit from the online world and the great opportunities provided. Also, parents need to establish communication channels with their children in an

attempt to help them feel comfortable reporting to them any bad experience or disruption while using the Internet.

Another measure to be taken is the development of a safe website which will minimize children's exposure to Internet dangers to a great extent. The website can be based on filtering which prevents to a large percentage the possibility for children to come across violent and sexual content and also a knowledge-based system in order to offer access to such information for both parents and children. The website's software will combine protection and easier ways of finding useful information regarding school educational programs and studies. Some of the features to be integrated on the website are encyclopaedia, vocabulary, and information on the latest news, Internet dangers, and ways to avoid and deal with them. Also, features to make the website more attractive and entertaining for children would include music video clips and funny video clips. The development of such website should be of great interest to the Ministry of Education and culture, since protective measures should not only be taken at home but at school as well. Finally, the development of a hotline website where people can report incidents regarding electronic crime may also be a very helpful measure.

All the above constitute the practical implications drawn from the study. The scientific implications can be summarized as follows. First of all, research should be conducted on further exploring digital immigrants' (parents) education and training in regards to digital literacy development, the learning material, and the strategies and techniques to be taken into consideration when designing and implementing such courses in order to be more effective and successful. Besides informative lectures and seminars to students, research should be conducted on how to integrate the Internet as an educational tool within the official school curricula. Finally, the examination of pre- and in-service teachers training on Internet use and dangers is important. Along the same lines, teachers should be educated on how to use the Internet as an educational tool in their teaching practices in order to reveal its educational value, how to teach students Internet-related issues and finally how to develop students' appropriate skills (i.e., critical thinking) so they will be in a position to protect themselves and use the Internet properly for educational and personal purposes and later on for professional purposes.

With today's technology, experience and information in the fields of computer programming and science it is possible for everyone to get educated and acquire different security systems that can both minimize the gap of knowledge that exists between old and new generations and limit online dangers. Social and educational awareness along with the installation of such software in family households would be an ideal way to protect and at the same time educate children. The Internet should be used in the best possible way with the minimum risks.

References

- Burnett, C., Dickinson, P., McDonagh, J., Merchant, G., Myers, J., & Wilkinson, J. (2003). From recreation to reflection: Digital conversations within educational contexts. *Educational Studies in Language and Literature*, 3, 149–167.
- Children and the Media. (2008). *The Internet: Benefits, dangers and strategies*. Retrieved March 11, 2010, from http://www.youngmedia.org.au/mediachildren/06_10_Internet_benefits.htm
- Davidson, C. J., & Martellozzo, E. (2008). Protecting vulnerable young people in cyberspace from sexual abuse: Raising awareness and responding globally. *Police Practice and Research*, 9(4), 1, 277–289.
- Eteokleous, N., & Pavlou, V. (2010). Digital natives and technology literate students: Do teachers follow? *Proceedings of the Cyprus Scientific Association of Information and Communication Technologies in Education Conference* (pp. 113–124).
- Europa. (2009). *Safer Internet Programme 2005–2008 (Safer Internet Plus)*. Retrieved November 27, 2009, from http://europa.eu/legislation_summaries/information_society/l24190a_en.htm
- Europe's International Society. (2009). *CyberEthics*. Retrieved December 21, 2009, from http://ec.europa.eu/information_society/activities/sip/projects/completed/awareness/cyberethics/index_en.htm
- InternetBullying.com. (2009). *Bullying*. Retrieved December, 21, 2009, from <http://www.Internetbullying.com/>
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.
- Livingstone, S., & Haddon, L. (2006). *Regulating the Internet at home: Contrasting the perspectives of children and parents*. Mahwah, NJ: Lawrence Erlbaum.
- Livingstone, S., & Haddon, L. (2009). *EU Kids Online: Final Report, LSE*. London: EU Kids Online. (EC Safer Internet Plus Programme Deliverable D6.5)
- Maykut, P., & Morehouse, R. (1994). *Beginning qualitative research. A philosophic and practical guide*. London: The Falmer Press.
- Murugesan, S. (2009). Social issues and Web 2.0: A closer look at culture in e-learning. *Handbook of research on Web 2.0, 3.0, and X.0: Technologies, business, and social applications*. Munich: Information Science Reference
- Oliver, M., & Carr, D. (2009). Learning in virtual worlds: Using communities of practice to explain how people learn from play. *British Journal of Educational Technology*, 40(3), 444–457.
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1–6.
- Richardson, W. (2009). Becoming Internet wise: Schools can do a far better job of preparing students for their connected futures online. *Educational Leadership*, 66(6), 26–31.

- Staksurd, E., & Lobe, B. (2010). *Evaluation of the implementation of the Safer Social Networking Principles for the EU Part I: General Report*.
Luxemburg: European Commission Safer Internet Programme.
- Widyanto, L., & McMuran, M. (2004). The psychometric properties of the Internet Addiction Test. *CyberPsychology & Behavior*, 7(4), 443–450.
- Young, K. (1996). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, 1(3), 237–244.