



OULUN YLIOPISTO  
UNIVERSITY of OULU

# **Young Children as Internet Users and Parents Perspectives**

University of Oulu  
Department of Information  
Processing Science  
Dipo Daramola  
Master's Thesis  
May 18, 2015

## Abstract

In the current available research concerning the real usage of the internet among the young children, most researchers particularly emphasizes on the risk and opportunities regarding the active use of the internet. Limited experimental research emphasizes on the role-based and impact of the parent guidelines in the context. In the current studies, internet parenting methods are well-defined and operationalized to study the influence on the real usage of the internet among children both at home and in school. In these researches two major dimensions are distinguished in the internet parenting methods: that is parental control and parental warmth.

The methods differ when controlling for parent gender, educational background, and age appropriateness. Parenting methods are also seen to be connected significantly to the level of parent internet usage, internet attitude and internet experience. Parental methods have been found to contribute greatly to the child internet usage. The highest internet level usage among the children is apparent when the parents approve a permissive parenting method; the lowest level is observed when the parent approves controlled internet parenting method. The variables internet parenting method, parent internet behavior, and parent educational background greatly influence Internet usage of children at home and school. The aim of this thesis is was to addressing a fundamental research question: “What parents think about their children’s Internet use.”

The theoretic and practical inferences are discussed and directions for future research. The research question in this thesis involves a qualitative study that involves a semi-structured interview conducted in a comfortable and friendly environment. As a requirement eleven children and five families were interviewed. The parents who were interviewed are well aware of their children internet access and usage.

### **Keywords**

Children Internet use, Excessive use, Digital Natives, Digital Immigrants, Internet safety, Children



## Foreword

It is been a great accomplishment to have seen this thesis to its full completion. In reflection, I would say that the task of completing the project in its entirety had been very daunting and exhausting. With a backlog of course work to deal with and the unavoidable task of parenting, coupled with all the hurdles of collecting data for the research, analysing the data, studying theories and finally presenting the thesis, I must say that this whole experience had been wearing and debilitating. However tiring the process, I must though admit, that being a father of two wonderful kids, I do take a personal interest in seeing the research to completion. In hindsight, I vividly remembered that when I first glanced at the topic via email, I was immediately endeared at its objective, partly as a result of its requirements been easy-to-meet and largely due to its focus on young children and their relationship with the Internet. As a father of two, I must say the top apparently caught my attention; I have long been interested in how the digital world of which I am immigrant shapes the behaviour and attitudes of this native citizens- the children of the 21st century. For instance, My son who is almost three years is a mobile geek; He operates smart devices with the intelligence of an adult several times his age! I often watch in awe as He goes on YouTube, search for his favourite videos, filter his interest, waits for it to load and bam! Watches them quietly in silence, I as well observe that his interaction with these devices is amiable, He communicates well the functionalities, He adapts to newer gadgets quickly whilst the adult in me struggles to find the power button. All of these experience put together triggers my interest for the research topic.

My first encounter with the thesis was in July 2014; the first task was to find relevant literature materials needed for research plan the thesis structure and get the necessary guidelines for writing the thesis. By August 2014, I started writing the literature review chapters of the thesis and by October I got the necessary materials such as consent forms, camera, and interview questions that will be used to interview the parents and their children during the later stage of the thesis writing, but due to the overload coursework, I had to put a hold on the thesis to complete my other course work and later come back to the thesis by the 3<sup>rd</sup> session of the semester, which was kindly agreed to by my supervisor Moreover, I really want to give my appreciation to her for her kindness towards the postponement because December 2014 should have been the deadline for the thesis since it's a paid research work.

There are some sets of individual that contributed their efforts, ideas, and guidelines towards the completion of this thesis that I will be giving kudos to. First of all, I thank God for the grace and strength to complete this thesis without any form of sickness during the process. I very highly appreciate my supervisor who actually helped and guide me during this thesis writing by the name Dr. Marianne Kinnula, who is a beautiful young and intelligent woman with years of research experiences in the field of Information Processing Science. She is also a University Lecturer, Adjunct Professor and a mother of three kids in a blissful family.

What I really appreciated most about her is that, she was there for me like a school mother who guided me in writing my thesis, she gave me the necessary approach to take in writing the literature review, and she also taught me how to follow the TOL guidelines and most especially to use the right research methodology (qualitative

research) in the vital chapter of the thesis. Anytime, I have made mistakes in the thesis; she is always ready to point me through in the right direction despite her busy schedule and to be sincere, I was lucky to have her as my supervisor, and she is such a kind and friendly person, fun to relate with intelligently with ethical strictness and caution support when discussing the thesis status with her. So, I appreciate my superior Dr. Marianne Kinnula.

I also want to thank the parents and children involved in the interviewing sessions during the thesis research method chapter for their contributions. I want to give my appreciation to them for all the efforts they made to this thesis; we had a blissful conversation. I want to say God bless them and wish them unending happiness. Finally, I thank my wife, kid and friends that supported me in this thesis journey. I appreciate you all and will always appreciate you for the rest of my life. Cheers.

Dipo Daramola.

## Abbreviations

CSM	Common Sense Media
HCI	Human-Computer Interaction
ICT	Information Communication Technology
ISTE	Information Society for Technology in Education
IT	Information Technology
WWW	World Wide Web

# Contents

Abstract.....	2
Foreword.....	4
Contents .....	7
1. Introduction.....	8
2. Related research.....	10
2.1 Internet use .....	10
2.2 Children Internet use in virtue world.....	11
2.3 Young children social networkers .....	11
2.4 Young children’s Internet use.....	12
2.5 Mobile phone use in young children .....	16
2.6 Digital Immigrants and Digital Natives.....	17
3. Internet use risks .....	20
3.1 Risks of internet use .....	20
3.2 Effects of Internet use for young children .....	22
3.2.1 Positive effects .....	22
3.2.2 Adverse effects.....	23
3.3 How to promote safe Internet use for young children .....	24
3.4 Summary of literature review .....	25
4. Research Methods.....	27
4.1 Qualitative research .....	27
4.2 Data collection.....	28
4.3 Data analysis.....	30
5. Analysis .....	31
5.1 Young children using Internet .....	31
5.2 Risk involved with children using the Internet.....	33
5.3 Parent concern about children Internet use.....	33
6. Discussion and Implications .....	35
6.1 Research results and contributions .....	35
6.2 Methodological considerations.....	36
6.3 Theoretical implications .....	37
7. Conclusion .....	40
References.....	43
Appendix A Semi-structured Interview Questions .....	48
Appendix B: Consent Form .....	49

# 1. Introduction

Recent study researches in Europe and the United States of America have recognized that many children surprisingly toddlers and preschool periods already access to computers and can even use them effectively (Livingstone & Haddon, 2009). With the advancement of information technology, the change in effectiveness and efficiency of communication has significantly changed. That is of course; new personal computers do more of classification, computation and so much on more effective than before. Therefore, digitization means easier data transmission for effective communication. Earlier finish research of the data of information society, (Viherä 1999; Nurmela & Viherä 2001; Nurmela 2001) have investigated the basic scopes of internet communications abilities with the support of three basic conceptions of access, competence and motivation.

The internet usage has been an integral part of these digitally aged children lives. The significant increase in time spend on the internet is prompting questions about whether parents are in control of the children's internet usage. Concern about the impact of the internet usage among children has recently been highlighted by various scholars. According to young and Abreu (2011), too much time on the internet can destructively influence numerous aspect of young children's lives possibly leading to; non prioritization of important task, psychological problems for example anxiety, lower self-esteem and physical health concerns due to lack of physical activities.

One of the biggest factions of the community is the children; well they are the future and now play a dynamic role in the development of society. They significantly participate in technological advancement almost entirely nowadays as they are a proper market segment for the business sector. In this technology era, young children could do varieties of things with the internet like studying school arts and mathematics, telling riddles and jokes, interacting with their friends either in school or home, and playing games. The ways children learn and live nowadays is been changed by expertise from online connection to database designing tools. As young children became aware and well informed about the new technology , their parents must also be informed and alert on how this technology could be of positive use for their children as new tech users, explores and users. Moreover, it is very vital because in the last two decades, the Human-Computer Interaction (HCI) environment has focused on the new approach to understanding obvious users of technology. (Druin, 2002.)

The previous researchers have shed light on several issues involved in this broad-based field of study. For instance, Previous researchers had worked a lot on this, and i would like to continue this in order to find what the state of affairs is in this regards to it. How the young children use the internet with their parent opinion was also introduced. The core aim of the thesis is to generate an appropriate answer to the research question: "What parents think about their children's Internet use". At the beginning of the thesis, literature review based on young children computing usage, their parent concern and internet activities were introduced. The materials collected for the literature review for this thesis are mainly the secondary sources from journals, books, articles published in different scientific and newspapers, along with the information collected from the Internet itself using its websites. The research questions are being answered in practice,



i.e., a form of a qualitative study where semi-structured interviews were taken in a comfortable and respondent-friendly atmosphere. With regards to the requirements, eleven children from five parents would be interviewed; the data from the interviews would be collected and analyzed. The interview methodology is capable of examining and verifying usefulness or value of the literature review information. The research starts with an introduction to the evolution of the modern technology and the role of children in shaping the market for the manufacturers of digital media. The study was split into primary portions to present the facts and studies performed by eminent researchers in this field. The first section comprises the Introduction, the definitions, the history, the background of the problem. The second section provides the statistical evidence, and reviews are establishing the use of digital media and gadgets and especially the Internet, by children and parents in the world. Here the realities and myths of usage of the Internet by children and adults are investigated. Chapter Three offers a profound insight into the risks involved and safety measures. The next two chapters discuss the research methodology, findings and conclusion with future implications.

## 2. Related research

In this chapter, a brief concept of the thesis will be introduced in connections with previous research that has been done by scholars on the research problem. The research study will mainly explore the concept of internet usage among children and its implications. The main objective of this chapter develop theoretical scholarly based research of the popular and political understanding of young people and digital internet usage technologies characterized by the comparison notions “Digital natives” the” net” generation and digital immigrants and other common sense portrayals of internet users among the young children. The research seeks to consider the accuracy of such descriptions in analyzing young children real use of digital technology to access digital information from the internet.

### 2.1 Internet use

The Internet is one of the greatest technologies that have significant benefit to the world today. Currently, benefits and services offered through the Internet has enabled most people and corporate to use internet actively in almost every aspects of life (Livingstone, S. M., & Haddon, L. (2009). The Internet bandwidth is progressively increasing, and it is currently to becoming global spread. Nearly 40% of the whole world population has access to internet connections currently. Two decade ago there were only less than 1% of internet users worldwide (Internet World Stats, 2015). The significantly increased number of internet users in tenfold from the year 1999-2013. The first billion marks by internet users were in 2005. In 2010, the world internet users stood at two billion, and as at 2014 the world internet users was at three million (Internet World Stats, 2015). These statistics are more illustrate by the Table figure.1 below retrieved from the official world web anniversary site.

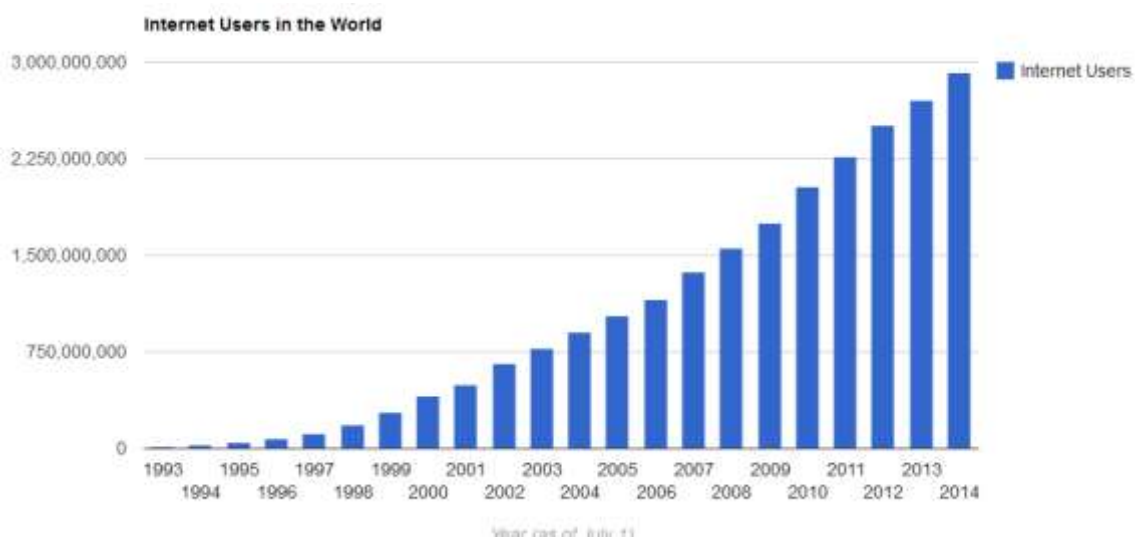


Figure 1 Internet users in the world Diagram

## 2.2 Children Internet use in virtue world

Most young children accessing the internet most prefers the virtual worlds. It is a term used to describe special simulated internet settings that enable children play online games and socialize by interacting with eachother children through avatars (Blake, S., Winsor, D., & Allen, L. (2012). The number of young children with internet virtual worlds access is on the significant increase with the sharp growth demonstrated in pre-teenagers internet users aged below 11 years old (Holloway, Green, & Livingstone, 2013). Security software company AVG, conducted a research project in 2011 AVG's on children between the age of six to nine year olds, discovered that 64% of United Kingdom children, and nearly 46% of German children, and an estimated 37% of French children are well versed in the use of the social network applications functions on the internet with sites for example, Club Penguin, and Webkinz ("Young Children", 2011). Virtual world's combines social network functions application on the internet with game playing applications platforms and as such interface isolates research consideration concerning the value and the risks associated with young children using these form of internet interactions as more illustrated Table figure.2. Percentage of European children aged 6-9 using SNS sites in 2010. Source. ("Young children", 2011.)

	Virtual worlds	Facebook
UK	23	56
Spain	37	61
Germany	5	12
Italy	0	3
France	3	14

Figure 2 Percentage of European children aged 6-9 using SNS sites in 2010 Diagram

## 2.3 Young children social networkers

Finding research conducted on the use of social networking sites among young children is a significant challenge because of difficulties in data searching and underreporting Strom, R. D., & Strom, P. C. (2009). Nevertheless in United Kingdom a recent survey conducted by "UK safer internet center" established that of children between the age group of seven and eleven years old 30% were reported to own their own account of Facebook even before they attained the minimum age required for 13 years (Broadbent, Green & Gardner, 2013). In Finland, the pre-teen mentioned Facebook as their preferred

social networking site (Pääjärvi, 2012). The Anti-virus Guard digital diaries research in 2010 specified that several children below the age of nine had their Facebook account, they established that Italian children had the highest percentage of children with Facebook account by 22% of the children, followed by French children having 15% of their children (“Young Children”, 2011).

Internet connection is an extraordinary channel to a wide in range wealth of information and intelligence, and its benefits are practically extensive. The internet is deeply injected into our daily activities and cultural approaches. It’s a point of supply evidence, figure, information, and statistics; an intelligence delivery appliance that permits huge number of people to relate one another on a daily basis; a way to make the most of, shop, and bank; and an entertainment and educational means that acquiesce people from all over the world to learn this style of life. (Superintendent Article, 2013.) The Internet use is a means of driven innovation to the Internet evolution, rapid growth and development in the past 40 years and still, will continue to develop consecutively (Internetsociety.org, 2012). Internet use has been growing rapidly over a decade period. 70.5 percent of the Europe population are Internet users; 87% of the North Americans use the Internet; 34 percent of the Asian population are Internet users; 48 percent of the Middle East population are Internet users; 52.3 percent of the Latin/Caribbean population are Internet users, 72.9 percent of the Oceania/Australia population are Internet users and 42.3 percent of the world population use the Internet. (Internet World Stats, 2014b.) It is also known that those without Internet connectivity give their reasons based on their lack of interest, which could be connected to their age (Lifeonline, 2015).

## 2.4 Young children’s Internet use

The EU kids online have recently spent almost seven years studying children between the age of 9-16 years commitment with the internet focusing on the benefits and the risks of using the internet among the children. While the investigations were of much older children, another investigation on children internet related behavior of children between the age of 0-8 had been conducted before the EU kids online started its early 2006. EU Kids on line’s recent results shows that more children have access to the online applications and programs at a younger age and that young children are exposed to nonexistence technical, critical and social behaviour skills that may pose a greater risk. (Livingstone et al., 2011.)

The EU report revised the recent research to have clearly a concept to understand the developing policy priorities, regarding children from birth to the age of eight. Their essential findings are as follows:

Over the past few years, there was a significant upsurge in internet usage by children below nine years old. This increase was not constant across most of the European countries but appeared to follow usage patterns among advanced age people cohorts in countries where more children used the internet, they use internet at younger age due to the exposure to the older people (Livingstone, Ólafsson, O’Neill, & Donoso, 2012). Children under nine years old use the internet to enjoy a variety of online activities, for example watching cartoons videos, playing online games, probing for information, doing their school homework while networking and socializing within the online children’s virtual worlds. The range of online activities and interest increases with age.

It has not yet been conventional whether children under nine years old have the ability to interact with the internet in a safe and valuable manner in all situations, particularly when it comes to this age group networking and socializing online, either within age applicable or digression virtual worlds or as under aged participants in online platform and sites intended for teenagers and adults (Facebook, Twitter, YouTube etc.).

Video sharing platform are the most popular with this age group children and are among the sites that young children would prefer to visit. The children in this age group spend most of their time online on these video sharing sites. With the ease of access to these platforms, children may be exposed to inappropriate video contents that are a subject of greater concern. There is an emergent tendency in which young children and even toddlers and pre-school kids use the advanced internet connected devices, specifically smartphones, tablets, and touchscreens. With the advancement of technology children are increasingly gaining access to the internet along with a possible increase in the exposure to risk related to internet use. With the use of the advanced internet-connected devices and applications available in the digital world today, children risk compromising their privacy and safety. Different human-computer interaction used with such devices complicate the use of security settings on individual devices, and various applications available for younger children incline not to disclose the company's data gathering and distribution practices. Consequently, the device usually does not provide easy customized human-computer interactions for young children.

There have been evident sharp increases in the internet involvement activities rate of children and youth in all European Union countries. Conversely, very young children of the age gap between (0-8) are displaying particularly increased patterns of internet usage. The Tweens' normally between the age of (9-12-year-olds) usage patterns now looks like those of teens nearly five to six years ago, and young school-aged children's use of internet is increasing significantly to the comparable of tweens' previous usage. Pre-school children are using the internet too, and most children under the age of two in most of the developed countries have command of online existence (or digital footprint). This significant report aims to recognize recent applicable evidence concerning young children below the age of eight years old and their increasing active involvement with the internet platforms. The research evaluates the quality of this research evidence, the research gaps and the future implications of the usage of the internet among the young children. There are few numbers of updated studies concerning the continuing increase of very young children's internet usage across Europe continent. European Commission (EC) research findings over the past decade show that children are having access to the internet at very younger age. For instance, a 2005 study of parents in member of the European countries designated that about 34% of 6-7 year olds children were using the internet while a similar study in 2008, showed that 42% of 6-year-olds and approximately 52% of 7-year-olds were using the internet (European Commission, 2006, 2008). These figures displayed both greater take up in certain national populations, and greater take-up among the younger age groups in the research completed in the countries encompassed in the EC survey.

A recent research from the individual European Union countries shows that the population of children less than nine years has significantly increased and that the children are gaining access the Internet at a younger age. In United Kingdom: A third of 3 to 4 year access online applications “using a desktop Personal Computer, laptop or netbook and 6% accessing the internet use tablet computer and 3% by the means of mobile phone” (Ofcom, 2012, p. 5). In addition to these findings, 87% of 5-7-year-olds are seen to be using the internet a significant rise from 68% in 2007 (Ofcom, 2012). In Germany, 21% of the 6-7 years old children and 48% of the age between 8-9 years old have gained access to the internet “at least rarely” (Medienpädagogischer Forschungsverbund Südwest, 2012).

The Finland statistic shows that 64% of 7-year-olds have access to the internet (Paajarvi, 2012). These more recent statistical data shows increases in children use of internet in Europe reveal a global trend, particularly in most and developed countries. For instance, in South Korea, which is the country with the world’s highest high-speed internet connections and penetration, 93% of 3-9 year has gained access to online platforms for an average of eight to nine hours in a week (Jie, 2012). In the United States of America , 25% of 3 year olds use the internet daily, rising to nearly 50% by age 5 and approximately 70% by the age 8 (Gutnick et al., 2011). Very young children are “growing up at ease of using with digital devices that are quickly becoming the tools of the access to internet at home, and school, and in the community” (NAEYC, 2012). Digital and media applications literacy has been a curriculum attention in the early childhood classroom in most of the European countries which has also influence the use of the internet among the younger aged children (Helsper, Kalmus, & Hasebrink, 2013).

In such, educational institutions setup it seems to have better prepares and integrates current technologies within the educational curriculum. Consequently, the native usage of the internet by significantly young children has seen little research consideration. The limited research studies concentrating on actual young children may echo the difficulties and the challenges of encompassing this age group this research projects. Their inability of reading and writing skills due to their early age stage make them less capable of being traditional survey-based data gathering, either through the means of online applications or by the pencil and piece of paper. It is clearly comprehensible, consequently, that the research that does involve pre-schools children and other young children is typically in qualitative and experimental in nature. Though, this qualitative research is additionally time requiring, it does allow the little voices of the actual young children to be heard. Even so, the necessity for supplementary research study connecting younger children on the internet use elevates further challenges concerning procedure, research ethical concerns and extra funding. (Livingstone & Haddon, 2008.)

The sharp increase in internet usage by children aged between 0 and 8 is not uniform. Extensive variance is evident between EU member countries as also seen within these countries. Therefore, it is not constantly likely to generalize to the different countries. For instance, in the year 2010 internet access in homes with younger children in the EU stretched to between 50% in Romania to 99% in Holland and Finland (Eurostats, 2010). Out of the 70 percent of children between 7-8-year-olds who used the internet nearly everyday in Finland. In 2009, most popularly favoured internet sites with game

applications. Gender changes are evident, nevertheless. For example, girls “favoured internet sites that were among children and youth leading social networking sites and online gaming sites, such as panfu.fi and littlepetshop.com.” (Suoninen, 2010.) Finnish boys though had dissimilar gaming partialities. Research that distinguishes and clarifies variances among and inside EU countries is required in order to exploit provision for all young children to convey the internet usage in secure and most valuable ways. Research concerning precisely what European children aged below nine are doing when they access the internet is rather imprecise. Some countries have begun to keep a track what actual young children do on the internet while others countries are planning to investigate. Commonly, a child in this age group indulgence in the internet is as a source of entertainment. The children between the age of 3 or 4 probably spend their time watching an entertaining video such as cartoons (Childwise, 2012; Findahl, 2012; Teuwen et al., 2012). For example, YouTube is the amongst preferred internet site for children under five years in the United Kingdom (Childwise, 2012). When the age advance to 3 or 4 their preference changes and they become attracted to playing online games (Childwise, 2012; Teuwenet al, 2012).

As young children get older, they broaden their internet activities to include information consulting, doing their homework and socializing (Ofcom, 2012; Childwise, 2012, Guðmundsdóttir & Hardersen, 2011; Findahl, 2012). The one thing that is certain about 0-8-year-olds’ interaction on internet is that children at this age grouping are increasingly using online applications on the internet. Additionally, Advancement of technologies, for instance, the smartphones and tablets, are particularly perceived as baby and toddler-friendly because they are not complex to use. Clearly most parents are aware that children are likely to be exposed to some risks when they access the internet unmonitored or use for long periods of which might lead to addiction. Even though, we are uncertain about conceivable value of internet use and opportunities, it may be, that in a digital world it is suitable that children grow up with digital information and resources as fragment of their everyday activities, guided by suitable methodology in their use through the active engagement of parents and guardians, therefore making digital technology a ordinary part of a child’s social expansion.

According to Young & Abreu (2010), Internet use has significantly penetrated children’s lives. The steady rise in time children spend online raises the warning question of if children control their internet use. There are many dangers of excessive consumption of the internet. These include poor academic performance, increased family tension, and school dropouts; wild hobbies, psychological and physical health problems resulting from sleep deficiency and fatigue. The fact of the matter is that the internet has stabilized itself in this planet earth, and it is crucial as a parent to think about the ways of designing a better safety and limited harm risk to our children. It is wise as a parent to give our children a high priority plotting and stimulating the positive online opportunities for our children to have the chance to discover, create and envision online. This has shown that the kids can gain something positive on the internet depending on how they are being guided and supervised. In this recent generation, loads of kids younger than six can’t even read, but literature — or lack because of that — is hardly a difficulty when it comes to Internet usage for children. (Rochman, 2011.) According to Livingstone (2003), observing the usage of the Internet by children creates public concerns that both weakens and guides research, confusing the present thought-provoking review of children within the privacy of the home.

This recognizes that the digital technologies use offers new opportunities to improve participative learning, innovation and communication (Plowman, Stevenson, McPake, Stephen, & Adey, 2011). Young children's online encounters are being described in the following areas of education, entertainment, and edutainment (Livingstone, 2003). As vital as it can be in today's society, the Internet is a reflecting thought of the corporation, both good and bad. Young children watching pornography and sexual predators have been the major concern for parent—issues that are headed to the preparation of Pornography and the Internet, Youth and, the National Academies report on which the NetSafeKids organization could be found. Youth between the ages of 12-17 from poor background families still have a low propensity to exploit the internet. Still, the expectation to be online using mobile phones is high among them as the dominant means of Internet access (Madden, Lenhart, Duggan, Cortesi & Gasser, 2013).

## 2.5 Mobile phone use in young children

The rate at which young children are using their mobile phones is increasing rapidly; especially the digital natives of these generations are much more in line with mobile connections. In India and Indonesia, about 20 and 25 percent of children send more than 51 messages per day, which shows the vast rate at which the mobile phone connectivity is fast increasing among young children. (GSM Association, 2013.) About 4 percent of young children between the age of 8-11 and six percent of children 12 to 15 that use mobile phones have been victims of bullies, while 3 percent of those of ages 8 to 11 and eight percent of those between 12 to 15 that use the Internet are victims of bullies and such a bully scenario has not improved or changed for good to this date and that is still a significant concern. (Ofcom, 2014.)

There has been a considerable acceptance of smartphone use among American teenagers with persistent access to the Internet via mobile phones. A quarter of the teenagers can access the internet from personal mobile phones as indicated by a national study of 802 young people of 12 to 17 years of age. (Madden et al., 2013.) Seventy-eight percent of children currently have cellphones with 47 percent of them owning smartphones. That translates into 37% of every child who have smart phones, have increased from 23percent in the year 2011. One in four teens has a tablet or a computer, very much alike to adults generally. 93% of children own computers with 71% of teenagers sharing networks with others at home (desktops or laptops). Teenagers in America exploit the mobile phone as the most popular device for internet connectivity. About three in four (74%) teens with age ranges from 12 to 17 years admit to at least occasionally accessing the internet via tablets, cell phones, and other secondary means. (Madden et al., 2013.) According to Graeme, (2008) publish in the Telegraph newspaper, Five percent of teenage smartphone holders admits accessing the internet mostly via the phones. The phones are said to have encouraged parents to stop driving their children to schools as they feel more assured of their safety. The advantage of it is that it encourages children to be independent and facilitating environmental conservation by decreasing the number of road vehicles.



## 2.6 Digital Immigrants and Digital Natives

Those set of people not born into the technology advancement world but later become attracted with and adopted various or majority visible feature of the recent technology are, and will forever; continually could be correlated to them is termed as the “Digital immigrants”(Prenksy, 2001, p. 1)

Digital immigrants fall into the following three main groups (Zur & Zur, 2011.)

***Avoiders:*** The digital immigrants comminute are the main place to find avoiders. They bear the tendency of being in possession of home phones, lack of email account and mobile phone. Facebook, Twitter and what is exceedingly descriptive this number of individuals collectively is that they could not fathom value in any of this activeness. They possess a way of life that tolerate them with minimal technology or comparatively technology-free. (Zur & Zur, 2011.)

***Unwilling adopters*** This group is probably the most different digital migrant set of elements. Despite them possessing a mobile phone, they still don't know to text in helping themselves. This set of elements is distinct more by its experimental and circumspect approach facing digital technology instead of its eagerness to apply these technologies. They sometimes use Google once in a blue moon without checking their email account and Facebooking occasionally and possibly are used with online banking transacting method. They understand technology part of modern inventions, and they try to get involved cognizant, but it feels exotic and not innate. (Zur & Zur, 2011.)

***Enthusiastic adopters*** are set by “digital immigrants” (Prensky, 2001) with the ability to compete with natives, as a result of their interest, size and ease in utilizing technology. They see the importance of technology utilized them cohesively. Examples of such group are Bill Gates of this world and other who have a talent for such regardless their state as “digital immigrants.”(Prensky, 2001) These elements are set of high-profile and tech savvy executives, business associates, programming expertise, and other tech savvy that immerse themselves in the Internet cultural approach. Members of these collective individuals utilize Facebook, text messages, with a Skype account (realizing that this is one of the ethical approach to relate with their children in a relax medium and keep in touch with previous friends), constant email checking and are always delighted about new technology advancement. They also admire blogging websites if they are in a business. (Zur & Zur, 2011.)

According to Prensky, (2001), the Realities of Adult digital technology use are not at ease with the speed and the multitasking style of working. Digital Immigrants acquire information – like all immigrants and some even perform better than others – to get used to their environment, they always retain, to some level. The emphasis of digital immigrants is observed in such a way as surfing the Internet for information second, instead of it being the first place they check or reading the hand-operated manual for a program instead of assuming that the program itself will educate us on how to make use of it. The modern days folks were "socialized" in another way via their children who are acquiring and educating themselves with new language approach. Moreover, since the language is acquired later in life; scientists narrate that it penetrates the distinct part of the brain. And the digital accents are in various examples such as an office secretary needing to print out a document composed on the computer so as to re-arrange it, instead of just editing on the screen; printing out your email or an even stronger accent

and take along people vividly into your office to view some nice internet websites instead of just sending them the URL. (Prensky, 2001.)

The young children born in the technology era can be termed as the “Digital natives”. (Prensky, 2005) In *Digital Native*, Technology uses Prensky (2005) stated that children are currently “comfortable in the digital language communication of computers, Internet, and video games. The identification of distinct patterns of the youth’s utilization of the internet has formed the subject of scientific, political, and traditional dissertations and debates. Taking the common sense approach to the digital native conception is a significant consideration for Internet stakeholders. Concurrently, the remarkable distinctions between the youth and old persons in technological aptitude may actively be appealing. (Selwyn, 2009.)

There is an up-and-coming Differences in high-income and low-income children’s access to home computers were far less understated. Survey data is a sign that merely around 22% of children in families with yearly incomes of below \$20,000 had access to a home computer, in comparison to 91% of the children in families with yearly incomes of more than \$75,000. Along with that, amongst the children who had access, those in low-income families were said to use the computer a lot less than the children in high-income families, maybe only due to the fact that several low-income families with computers were without a connection to the Internet. The two most foretelling aspects of children’s use of home computers were the age of the child and the capabilities of the computer. (Becker, 2000.) Digital Natives’ intellectual capacities are perhaps physically distinguished as an outcome of the digital contribution they received while growing up. Moreover, along with that, Prensky (2001) submits that learning through digital games is a magnificent method to reach the minds of the Digital Natives in their “native language” (Prensky, 2001) This report by Smahel, (2013) offers fresh discoveries and extended analysis of the EU Kids Online, a 25-country survey about the application of the Internet by children. It reveals that although an enormous number of children, around some 29% experienced one or more of the five aspects related to excessive Internet use, only a few of them, around a meager 1% are actually able to reveal pathological levels of use. These studies and reports portray an accurate picture of the latest trends in media usage and learning by children. (David Smahel et al. 2013.)

The reality of digital technology use by young people ‘digital native’, in the view of Mark Prensky, grew from different writings back in 2001. Prensky defined the young set of generation from 1980 as “Digital Natives” based on what he supposed as a tenacity in the usage of using recent technologies including recreational devices such as game players associated with the digital platform. (Prensky, 2001, p. 1) Prensky contended that technology was an indispensable part of the lives of young people. He represented young people as “surrounded” and “immersed” in technology use, a feature that markedly distinguished them from the old generations. He discussed that the fascination with technology would have its effects even in future generations of children he described as ‘i-Kids’ to denote the internet influence in their lives (Prensky, 2008a). The conception of i-Kids entails children entrapped into mobile personalized devices including MP3 players, phones, and hand-held gaming devices among others. Wallis (2006) and Foehr (2006) conceptualize young people as those who multi-task between daily activities and using the devices to access the internet. The interactive nature of the multi-tasking characteristic is encouraged as a positive effect of the exploitation of the internet. The internet has given children the opportunity to dictate what they do on their

volition by exercising the freedom to choose from a variety of options. Such children have developed unique social skills as a result because of the tendency to connect with various people of different cultures from all over the world. Such strengths breed self-confidence in the children and prepare them for later life where they can overcome various challenges. In this regard, children have also developed in valuable teamwork skills with the aim to accomplish tasks together. It has even earned them a nickname “the teamwork generation” (Tapscott and Williams, 2008). The internet can thus help children realize the power of mass collaboration (Leadbeater, 2009. p. 36).

The mixture of individualization and teamwork is generate in young people the impetus to question, challenge and analysis. These are individuals who “typically can’t even think of a life where citizens did not have the tools to keep on thinking critically, change views, challenge, validate, verify, or debunk” (Tapscott and Williams, 2008, p. 47). The inherently doubtful, but highly friendly worldview of the digital native generation is characterized as leading growing children and young people to construct alternatives to the structures of previous generations and core values of the traditional institutions. As Andrew Keen (2007, p. 93) positions it, the recent generation of school children “is taking search-engine results as good news,” thus fostering a “younger generation of intellectual theft or kleptomaniacs, who believe in their ability to copy and paste a well-phrased thought or opinion of others making it their own”(Keen, 2007, p. 25). Some problems discussed were the quality of Internet-supported learning amongst university students with a number of predictions of the logical and scholarly de-powering of a “Google generation” of undergraduates incompetent of independent critical thought (Fearn, 2008).

### 3. Internet use risks

In this chapter, the risk and effect of internet use for children are described. The major positive and negative consequence of engagement with internet among young children is studied using various theories and concepts of scholars. Additionally a discussion on, the internet safety precautions parents uses for young children internet usage monitoring has been analysed in context including a detailed various ways the children could be protected online and how parents are trying to monitor their children from being exposed to inappropriate content.

#### 3.1 Risks of internet use

According to the cyberethics webreport (2011), despite the Internet's countless benefits and the vital information it presents, there are invariably dangers of ignoring that one ought to be very vigilant when dealing with it. As with every aspect of new technology, the internet appears with prospective hazards if not used vigilantly. Virus infections are the first and the major havoc of the internet. These viruses can duplicate themselves and contaminate computers exclusive of the knowledge of the users. Viruses are programs that can duplicate themselves and contaminate computers exclusive of the knowledge of the user. File sharing or websites, instant messaging programs, and email are the source of virus transfer to an uninfected computer. Spyware and adware programs are also the sources of viruses. Another online risk is found in scam emails. Scam emails are the ones that someone deliberately sends, with the rationale of conning people and extorting from them valuable information on the subject of his or her passwords and details of bank accounts. At length, Internet crime has turned into a primary concern from the media as countless people are watching child pornography via the Internet. Last of all, unwarranted and disproportionate use of the Internet can develop into addiction and may become the cause of physical health problems, as well as mental ones.

In content risk, the internet is largely unregulated because governments cannot enforce laws and use the police. Only cyber-crime is universally acknowledged in its various forms such as spreading of malicious viruses to disrupt the activities of other internet users, but still, moral guidelines are needed to deal with the problem. Exposure to images or information is as mordant as anything accessible in the streets of metropolitans of the world; is a simple truth that no one can deny. (Safenetwork.org.uk, 2014.) An attempt to understand the dilemma by restricting children's online opportunities or either ignoring the risks or conversely by limiting their access to the internet or by controlling their activities are not that encouraging. Reducing online risk may curb online opportunities; in particular as research recommends that those who experience extra online opportunities may also experience extra risks. Thus, there is a dire need for additional delicate solutions as the need of the day. (Livingstone & Helsper, 2009.)

EU Kids Online research proposes "inferior levels of skills and self-confidence portrayed by younger children are particularly of great concern" (O'Neill et al., 2011b, p. 19). Even though EU Kids Online research was particularly concerned with children

of the aged nine years and above, it is practical to precisely conclude that based on those research findings children younger than nine will have fewer skills in conveying the risks exposed in internet interaction, than the 9-10 year olds. Additionally, EU Kids On line's European Database based on practical evidence specifies that there very minimum concrete European research concerning the value and the associated risks of internet involvement for very young children between the age of 0-8. Nevertheless, 2013 research survey data from Sweden shows that 13% of the parents of 3-7-year-olds reported that young children had undesirable internet involvements.

A research of internet readiness conducted in Australia with a total number of 57 children aged between 5 and 8 discovered that children of this age were more exposed to internet based destructions than older more children, despite having a general thought about the risks encountered while using the internet. The majority of the 57 children in the research study become aware of internet risks from their parents and other family members (Ey & Cupit, 2011). The 5 to 8 year-olds were capable of identifying content risks for example inappropriate sexual content, violence and vulgar languages some of the children could even identify contact risks that are engaging people they never have since people who they only know online. Nonetheless, they displayed a notch of naivety when they were challenged with 'real life' internet based scenarios. They unsuccessful could not recognize unsuitable communication and situations, commercialism, untrustworthy internet information and enlightening their personal private information as internet risks (Ey & Cupit, 2011). For instance, when challenged if they attend a birthday party or choose to go to the park for a game upon being requested by somebody they merely knew on the internet, some confessed 'yes.' In this rationale, young children's information concerning internet risks may not always translate into safe conducts for the children in the real life internet involvement.

One argues that it may be between contact risks, whereby a child gets involved in risky peer or individual communication; content risks where the child is a recipient of unwanted or unsuitable mass communication and conduct risks whereby the child exploits themselves to provide access to risky content or contact (Staksrud & Livingstone, 2009). Online contact occurs when Liberty is unsupervised by its nature. It is only the shy teenagers that can explain to the parent on how the mobiles are used. In some anonymity of phone numbers, who develop a relationship with the children and hide circumstances, it may drive them to sex perpetrators that are fond of hiding behind the scene or the anonymity of a chatroom (Iannelli, 2009). However, the danger can be minimal if the children are being told of the danger. Nevertheless, according to the Taiwanese I-chia (2011) study analysis, which says 43 percent of parent are always concerned that their children would get in touch with strangers on the Internet, with only 10 percent of the children being worried. (I-chia, 2011) (Indiaparenting.com, 2014). The fact is that online or internet grooming remains obscure. There are various promising ways of independence without the new media environment's exploitation; nevertheless, responsible education and honest discussion can improve the majority of the risk examples. Offline contact is an era with incidents being reported and going viral within a few minutes. People learn from the mistakes of others. The children using the Internet are fully aware of the risks involved and more than a few know how to cope with them, but there are a few who still need to learn to stay away from strangers even if they are online or offline (Livingstone & Helsper, 2009.)

In commercial risk, the children of all ages are at a risk of being exposed to several commercial sites that are inappropriate. These are the game sites with characters using high abusive language and explicit sexual images and/or characters in sexually enticing clothing. According to the Esrb (2006) report, video gaming is the favourite hobby of American children and presently, video games are a multibillion-dollar industry, with video game sales topping \$7.4 billion and selling more than 240.7 million computers along with video game units in 2006 .(Esrb.org. 2006.) It is almost equal to the \$9.7 billion earned by the movie box office in 2007 (Boxofficemojo.com, 2008). Seventy-seven percent of preteens and 85% of teens in the US own a videogame console (www.mintel.com, 2006). Besides, electronic games are played by teens 9 hours per week on average with male teens playing more hours per week around 3.5 times more than female teens that make the usage 14 hours compared to 4 hours. Young children from the age group 6-11 are also playing an average of 10 hours per week, with girls playing 5 hours and boys playing 13 hours. (www.mintel.com, 2006.)

### 3.2 Effects of Internet use for young children

The time spent by a child online is time not spent in another place, including involvement in community activities and interaction with family and friends (Biocca, Jackson &VO Eye, 2003). Whereby, the Internet helps communication with family friends and those who happen to be geographically distant and formulates an easier way to communicate in numerous ways other than simple email, phones simply by applications like Skype, Viber and WhatsApp. There is a concern about worldwide penetration growth among young people who are getting addicted to the Internet. For a clinical condition to be treated, addiction is always studied and analyzed. There is an educational research about the pathological Internet use that could harm people and generate additional mental disorder trace, and depression could be an example. (Park, 2012) (Richards et al., 2010.)

#### 3.2.1 Positive effects

Apart from the noticeable entertainment many young children experience playing online games, watching a video such as cartoons and mingling online, their interaction with the internet is helpful to develop the trending digital literacies among the young children. It can also be significant supporting future academic accomplishments, such as data mining and social interaction wellbeing. (Cavanaugh et al, 2004; Johnson, 2010; Marsh, 2010; Judge et al., 2006.) To a much bigger level, European countries support the endowment of digital technologies and the improvement and growth of digital knowledge and skills in their early childhood education, distinguishing that the sources on the internet delivers new occasions for knowledge creation, contribution, imagination and efficient channels of communication with other members of the society. (Plowman et al., 2011.) Recent growth in internet usage by children below the age of nine implies that most parents also maintain that the exposure of their young children to the internet creates an opportunity for them to discover more information online thus enhancing creativity and imagination. Though, at this level, however, there is slight clear direction on how these very young children can acquire knowledge, explore imagination and in a

secure and valuable methods. To a more excellent or insignificant degree, European countries sustain the development of digital literacy skills and supplies of digital skills in their early childhood classrooms, knowing that the internet delivers new opportunities for interacting, creativity, learning and contribution with others (Plowman et al., 2011).

Escalation of internet adoption among children below age nine propose that majority parents encourage their children's early access to the Internet by yielding their chances to explore and play online. (Holloway, Green & Livingstone, 2013). Most young children in developed and developing countries are beginning their formal schooling years with substantial knowledge experience in the computer technology use and the internet. They portray developing skills and knowledge in traversing, retrieving and generating content (Hopkins et al., 2013; Edward Groves & Langley, 2009; Siibak & Vinter, 2010; Zevenbergen & Logan, 2008). Being essentially literate in the current digital age involves several literacies spurning from skills in retrieving, understanding, programming and generating in various digital formats. These developing digital literalness skills also produce the foundation for the responsive use of these digital technologies. The ability to use computers technologies and the internet effectively entails good interpersonal associations and encourages imagination, self-expression, and independent identity creation. It also significant in reinforcing a sense of belonging or social networking and contributes to the growth of digital social skills. (Holloway et al., 2013; Collin, Richardson & Third, 2011.)

### 3.2.2 Adverse effects

The internet has advanced a very efficient and money-making means of distributing sexually explicit material, as well as a channel for sex trafficking, sex crimes and compulsive sexual behaviour (Cooper, 2002). Nevertheless; in most cases, the sex sites were retrieved by accident when a child, often in the process of doing homework, used a harmless word to search for information or pictures (Sawmy, 2013). According to the London School of Economics (2002) survey, 90 percent of children between ages 8 and 16 have watched pornography movies or acts on the Internet. Adolescents who declare a lack of social support and emotional state of isolation may behave in self-harming ways such as miserable ideation and suicide attempts (Spruijt & de Goede, 1997).

As children or juveniles no longer play or do exercise, this may cause high risks of obesity along with the risks of heart problem occurrence, stroke, cancer, and diabetes. Such free access and experience to this information by a person in puberty who has not yet developed into a full prime of life could pose adverse impacts on juvenile development and could potentially be evident in their social interactions with peers, their sexual doings, and their emotional development. (Subrahmanyam et al. 2006.) These worried on teens may have a predisposition to resort to computer communiqué as an extra for real life communications (Subrahmanyam et al. 2006). Thus, even though the Internet may aid as a substance for communication and may increase the social capability of socially nervous teens, it may also inspire fake characteristics and a false perception of actual life situations. Several high-risk factors they can also get involved in include impulsivity, enmity to women, and promiscuity. In this focus group, a very common usage of pornography is related to a greater developed rate of sexual aggression. (Malamuth, Addison, & Koss, 2000.)

### 3.3 How to promote safe Internet use for young children

Parental control measures are widely endorsed as the most useful and effective methods to guarantee that young children are secure while interacting on the internet. There is a substantial possibility for improvement in their implementation and the usage because particular two third of parents do not use them. Parents are more inspired to contemplate employing parental controls measures and other practical resolutions though this will necessitate more accessibility of user effective, prudently customized, inexpensive tools. The use of parental controls measures or even the sieving software applications still cannot be the only resolution. Practical resolutions can easily produce untruthful logic of security for parents and teacher who may contemplate that by making use of certain kinds of software children will be secure while engaging themselves via internet, without them having acting more engross with their young children use of internet (Horzum & Bektaş, 2014). Identifying the opportunities and risks that young children may face online is apparently useful to recognize how the condition in various countries can be compared with an effective solution. However, this approach has been contextualized in the children's social setting, and one method to achieve this is to observe whether their parents respond contrarily to their children's internet usage across the diverse countries. Parental mediation approach has continuously been perceived as an imperative factor relative to children's technological use, and there is a well-built field of rational around the various kinds of parenting and in what way they might be connected to diverse styles of use (Livingstone & Helsper, 2008). Several articles have been written founded upon the EU Kids Online facts around parental mediation and its relativity to the usage of internet by young children, particularly in risk taking (e.g. Dürager & Livingstone, 2012).

In terms of preventing unnecessary internet and monitoring among the usage of young children, the EU Kids Online research findings proposes that protective measures should immediately start offline and at an early age, being keen in observation of when young children demonstrate the pertinent psychological features such as consciousness seeking and emotive problems. When these problems are addressed early straight, through parents engagement and communicating responsively regarding these issues, it is more possible, to summarize, that time spent on the internet, and the advance understanding of digital knowledge and skills, will be of value to the younger children as they move towards a valuable use of the internet resources while they get older. It has been noted that when psychological problems are not solved early during child growth and development then consequently the time spent on the internet and digital knowledge and skills might essentially result to a higher risk of unnecessary use and therefore consumption of inappropriate content. If the child is found to experiences unnecessary internet usage, which is usually confirmed by exhibiting all of the behavioral components identified earlier in the research, then it is recommend that parents seek relevant professional help, for example, clinical psychologists, or school counselors, who can contribute to come up with a well detailed or factual solution to the state of concern.



### 3.4 Summary of literature review

To summarize the entire literature review, I reviewed the whole literature review in this thesis from the year 1990s till date. First of all, introduced what children and internet usability in details. Many researchers gave their meanings and descriptions about children and internet use such as Druin (2002), Livingstone (2003), Stocker (1994), Berndt, Hawkins, and Jiao (1999), Young and Abreu (2010), Plowman (2001) came up with understanding young children and internet use and how parents could be of help in monitoring their children internet activities. I started introducing internet use has is a means of innovation to the internet development, evolution and rapid growth in the last 40years and still continue to develop consecutively (Internet Society, 2012). Internet use has been growing rapidly over a decade period. Seventy percent of the Europe population are Internet users; 87.7 percent of the North American population use the Internet (Internet World Stats, 2014b) Internet use has become an important part of children and young people's lives (Young & Abreu, 2010). Loads of kids younger than six years old of age cannot read and write when it comes to Internet usage for children (Rochman, 2011). Though, observing the young children internet use creates public concerns that both weakens and confuse the present thought-provoking review of children within the privacy of the home (Livingstone, 2003). This shows that the digital technologies use gives new approaches for communication, learning participation, and inventiveness with others (Plowman et al., 2011). I also focused on the rate of children that use internet connections and it was discovered that around three in every four (74%) teens with the age difference between 12-17 are the ones that have internet on their mobile phone. (74%) of adults between the age of ages 18-49 are the ones that have internet on their, tablets and mobile devices. (Madden et al., 2013.)

According to GSM Association (2013), a survey that shows that 86% of children are using a brand new mobile phone and 60% parents also own a brand new mobile phone. 14% parents used a used phone. The parental internet use was also buttressed on such that they used less Internet in a different way. They are reluctant about making Facebook friends and accounts and mostly are unable to multitask (Macgill, 2007). Prensky (2005), said young children as now being "comfortable in the digital language communication of computers, Internet, and video games." (Prensky, 2005.)

Digital Natives' brains are perhaps physically distinguished as an outcome of the digital contribution they received while growing up (Prensky, 2001). Then I try to focus on the reality of young and adult people digital technology use. It also shows that the Digital immigrants are divided three main groups that are the avoiders, Unwilling adopters and Enthusiastic adopters (Zur & Zur, 2011.) I found out about the concept of internet risk use which argues that it may be between content risks where the child is a recipient of unwanted or unsuitable mass communication and contact risks, whereby a child gets involved in risky peer or individual communication; and conduct risks whereby the child exploits themselves to provide access to risky content or contact (Staksrud & Livingstone, 2009). I also realised in this literature review that young children aware of the risks involved and only a few know how to manage them, but there are a few who still need to learn to stay away from strangers even if they are online or offline (Livingstone & Helsper, 2009). It also is shown that pathological Internet use could harm people and generate additional mental disorder, depression, and trace, could be an example. (Park, 2012) (Richards et al., 2010). One of the adverse effects is that Internet can sincerely restrain teenagers' experiences in life. Moreover, it is also discovered that

a very common usage of pornography is related to a greater developed rate of sexual aggression (Malamuth, Addison, & Koss, 2000). Moreover, i emphasis on how to promote safety internet used among young children. In the next section, I start to work on the research methodology to be used which the qualitative research analysis will be helping a lot in answering the research questions mentioned at the beginning of this thesis.

## 4. Research Methods

In this section, qualitative research method will be briefly introduced, and the qualitative research method was used to look for the empirical support of the framework. The empirical data was gathered from parents living with their kids by a semi-structured interview technique, and the children were observed as well in their natural circumstances. Moreover, when the data was collected, we will analyze it via the content analysis method.

### 4.1 Qualitative research

In this part of my research, the Qualitative research method is the primary method I planned to use for my research, and I will briefly introduce what qualitative research is all about.

The general objective of the qualitative research is to know and understand people and what they communicate and act and to know the cultural and social context which requires communicating with people (Myers, 2013). The component of qualitative research is in 3 majors (Straus and Corbin1990, p.20). Which are?

- Analytic or interpretive procedures that are use when research comes from theories or findings (e.g., techniques for the data conceptualization)
- Data which arrives from various sources (e.g., interviewing, observations)
- Verbal and written reports which are shown in conferences or scientific journals.

In qualitative research, the plan ought to be as easy as it is doable as a result of the quality of analysis lying within the interest is looked at and also considered particularly in representational and explorative inquiries. If the strategy is a very complicated one, then its several elements and phases may overcome the topic being studied. (Chenail. 2011.) Qualitative research is not merely based on recording people's daily life. It shows or analyzes the daily lives' events via existing or new concepts. Moreover, it helps in building new ideas or concepts that can be used to define social processes. (Yin, 2010.) If we compare both the qualitative and quantitative research method, we will release that the qualitative research method does not use statistical generalization or phenomenon in general and does not focus on numbers and natural sciences to produce theories and findings. Moreover, that is why qualitative research method is more ideal than quantitative research method when researching on people's behavior, stories, lives, and about the interactional relationship or a social movement and organizational functions. (Strauss & Corbin, 1990.)

Qualitative research focuses more on texture, social sciences, and a phenomenon in the context, depth and theory in generalization. (Myers, 2013). Qualitative research appropriately looks for answers to questions by analyzing differing individuals and social settings that constrain these settings. Researchers involved in qualitative research method are mainly interested in how human beings put themselves in order and their

environments and how the dwellers of this configuration make sense of their surroundings via rituals, symbols, social roles, and social structures and so on.

According to my research method plan, I focused on investigating on what parents think about their children's Internet use, which is related to a social behavior pointer and this makes the qualitative research method the ideal research methodology needed for my research.

According to (Yin, 2010, p. 49), qualitative research is divided into four parts that are as follows.

- “Defining something to investigate”;
- “Collecting relevant data”;
- “Analysing and interpreting the results”; and
- “Drawing conclusions based on the empirical findings.”

## 4.2 Data collection

The information gathering or collection is the first step to take for a qualitative research method that serves as the foundation for these study research. In collecting data, someone must make sure the data gathering is authentic, which the person is gathering the data must be attuned. The data gathering for this research study would be collected via real life experiences, but there are also various ways to get this data that are seen in four real life activities: interviewing, observing; collecting and examining, and feelings. (Yin, 2010.) Someone can receive particular attention based on the language communication between the interviewers and interviewees via interviewing. Your social interacting, activities, people gestures, real environment and actions can be determined via observing, artefacts, graphics, layouts, record achieve, gathering materials which could be either in digital or printed material form can be gotten via collecting and finally, you can feel people's impressions via their temporal measure, noise, and social activities among themselves. (Yin, 2010.)

If we look at the topic of my study research with its research questions, we will realise the influence of Internet use on the life of young children and how the use of the Internet affects the real life experience of the young children who are the digital native of the 21<sup>st</sup> century generation. The impact and use of the Internet are widely accepted and is still accelerating on a positive. Looking at the four method of the qualitative research, the interview method will be good to use for this research study based on how the study research methodology was planned. So, I will be describing what interview is all about. Interviewing is the act of interaction or communication between the person interviewing (Interviewer); and the person who is being interviewed. (Yin, 2010).

According to Yin (2010), the interview could be conducted via a different form that can be divided into either qualitative interviews or structured interviews. In another article that was written by Berg (2004), it wrote that there were three types of the interview which are the semi-standardized interview, the unstandardized interview, and the standardized interview. How the interview is being done is what differentiates them. In qualitative research, the qualitative interview is probably the most dominant approach to interviewing, which is quite different from the structured mode of interviewing. Qualitative interviews cover a lot of data-gathering activities, together with a variety of scientific discipline report methods. Qualitative interview pursues the interview by

itself, and the conversational mode will first place one in a social relationship of varieties, with the individual relationship to each and every partaker. Qualitative interviews are notes taken while talking with respondents while structured interview are performed by exploitation of survey forms or questionnaires which will be comprised of all of the questions that will be asked. The structured interview does not have more freedom than a qualitative interview. Even though, structured interviews may be used to acquire nearly all types of data. These are like questionnaires, where data is predicated on opinion. (Yin, 2010.)

In general, structured interviews are accomplished with a well-designed type previously established. Forms are crammed in by researchers, rather than respondents, and in this it differs from questionnaires. Whereas this approach is costlier, a lot of complex queries may be asked. Interviews may be embarking on the type of information sources and through various media, either by phone or as a face to face meeting. Data for this research paper is directly gathered from interviews with the parents and children who use the Internet daily. The unstandardized interview could also be known as qualitative interview-based on the description, and a standardized interview could be called a structured interview. The interview between the standardized and unstandardized interview is the semi-standardization interview. The semi-standardization interview includes implementing many kinds of particular topics or destined questions. (Berg, 2004.)

This study research is in the form of a qualitative study where semi-structured interviews were taken in a comfortable and respondent friendly atmosphere. This research was done with a semi-structured interview focusing on couples or a single parent with children of age groups from toddlers to teens. When I wanted to conduct the interview session based on the study research method to be used, a semi-structured interview that is also known as semi-standardized interview method, is the one I used for the research method.

Before that took place, I had designed some questions based on the literature review and also via my study research supervisor's approval. Since I am a parent myself, it was easier for me to know the questions that would be suitable to ask the parents with their children. I and my supervisor ended up with seven closed and open issues to ask the parents and their children during the interview session that can be seen in Appendix A.

It was quite easy to get the people I interviewed because the majority of them are my friends from different nationalities, and all of them are living with their kids. Some of the children lived with a single parent while some lived with both parents. Before the meeting took place, I sent the 5 parental groups an informed consent form for them to read the research objectives and descriptions, goals, the procedures related to collecting research data, and asked them to fill it in and then give their consent form to participate in the interview section and to get the research data related to the interview. Some of the words written in the concept form are quoted below: You can also find the complete consent form in Appendix B.

Fortunately for me, I was able to agree with all the participants I would be interviewing for the 2<sup>nd</sup> of October 2014 based on the time schedule for every participant, and luckily they lived close to each other, which made the conversation easier and faster. The full detail of participants interviewed was a map with a code word and code number for ethical purposes. The first family interviewed was the respondent (R1) who was

comprised of the mother (Parent R1) with her two kids (GirlR1&BoyR1). GirlR1 was 6years old and BoyR1 was 2.5 years old of age. I arrived at (R1) family by 8 am in the morning according to our schedule and had about a 10-20 minutes interview with them all. The second family was the Respondent (R2) who was comprised of the mother (Parent R2) with her son (BoyR2); BoyR2 was 4years old of age and the interview took about 10-15 minutes. The 3<sup>rd</sup> family was the Respondent (R3) who was comprised of the mother (Parent R3) with her three kids (GirlR3; Boy3R3; and BoyR3 Jr). GirlR3 was ten years old of age; BoyR3 was eight years old of age and BoyR2jr was 4years old of age. The 4<sup>th</sup> family was Respondent (R4) who consisted of a mother (ParentR4), and her daughter (GirlR4) GirlR4 was 4years old of age and the interview took about 10 minutes, and the last family interview was Respondent (R5) who was comprised of a mother (ParentR5) and her two kids (BoyR5 & GirlR5) BoyR5 was 5years old of age , GirlR5 was 3 years old of age and the interview took about 10 minutes for the whole family. The interviews were recorded with my recording instruments such as a Canon camera, laptop, and a 16 gigs memory card. One of the participant did some of her interview in Finnish language, since I do not speak Finnish, I had to get a Finnish friend of mine who assisted me in translating the interview from Finnish Language to English language. The overall interview transcript is made up of 11 pages with more than 3,000 words.

### 4.3 Data analysis

Data analysis is what was used for this study research; the interview question for the data gathering is used to answer the research questions on: “What parents think about their children’s Internet use”. The data gathered from the interview is described based on the research topic of Young children as Internet users: General situations on small children and Internet use, the risk involved, effects, safety and a conclusion on it. The literature review based on the young children’s Internet use will be evaluated.

I will describe what parents think about their children’s Internet use in practice. First of all, the general situation of young children as Internet users will be introduced. Then, I will explain briefly about the risk involved with children using the Internet, the parental concern of Internet use in their children, and conclude with an observation. Based on what I read about qualitative research analysis, I realized that the content analysis method is the most crucial way to analyze the data collection I got from the interviews with the participants. I will use theoretical approaches described in my literature review part to interpretive the interview responses. The analysis of the data collection should be followed based on how the interview questions and answers are arranged. Moreover, this will show if the theoretical approach was used in practice. The result gotten from the qualitative data analysis is what will answer the research questions of the study research. The literature review based on the young children’s Internet use will be evaluated.

## 5. Analysis

### 5.1 Young children using Internet

In this chapter, I introduce what parents think about their children's Internet use. The interview session with the focus group who are parents and their children was successful, as it became evident that the safety of the children made them worried. To make sure that they were comfortable, consent forms were used before using their interview content. The children were often allowed to use the Internet when the parents were around them. These are important ways of stopping children from browsing the wrong websites. Like (Parent-R3), (Parent-R2) and (Parent-R5) said:

*“My children use the Internet every day. The children are playing games and watching different video programs online such as YouTube and some webpages that needed adult signature to sign, which is always a challenge for them to access because they do not have an adult account to do it by themselves since they are still kids. Moreover, such a strategy is a way of protecting them from looking at things above their capabilities.”* (Parent-R3)

*“My son uses the internet during the afternoon and evening but does not use it at night because he needs to sleep and prepare for school the next day. Sometimes in the morning when going to school, he uses them on the bus on his way to school. He likes watching turtles, superman, spider man, Mickey Mouse, etc.”* (Parent-R2)

*“My son started using the internet at the age of 2 and half years while my daughter started using the internet at 3yrs but my when my son started using the internet he always ask for help from them as their parent to guide him but he has known how to use it well no and his younger sister who is 3 learned internet use from his elder brother. My son likes watching cartoon and playing games while my daughter likes a cartoon. When a visitor comes to our apartment and sees my young son handling the internet at the age of three, they are always surprised. My son has his desktop computer he used to practice internet, watch movies and play games, and my daughter learns from him but they sometimes fight on whom to use the computer, and such disagreement makes me get her small internet devices to use to play games and watch movies.”* (Parent-R5)

Playing games and watching cartoons is the primary activities the young children use the Internet for, moreover, some the older ones like to watch movies, listen to music and watch some young children's programs that will either have a positive or negative affect on them depending on what it is. Like (Girl R1), (Boy R1), (BoyR5) and (GirlR4), said:

*My name is (Girl R1), and I am 6 yrs. old. I started watching cartoons and games at age 2. My brother's name is (Boy R1), and he is 3yrs. old. My brother started watching the cartoons at age 2, and I like watching Seven Super Girls on YouTube, and the program is above my age .”*

Moreover, when (Girl R1) was asked why she watched such movies, she said

*“Because they teach gymnastics in the movies, and I like gymnastics a lot. I did not like watching a cartoon anymore because it is too short to watch. My brother likes to watch a cartoon on YouTube like Mother Goose Club and Superman.” (Girl R1)*

I asked (Boy R1) why he liked the cartoon and with 7 super girls with his sister sometimes; he said

*“I did not know; I just like it.” (Boy R1)*

I also asked (BoyR5) and (Girl R4) what they like on the internet, they said:

*My name is (BoyR5) “I am 5years, and I started watching cartoon when I was 2 years old and using the internet when I was 3 years, and I likes to play angry birds and spiderman a lot. I do not go to YouTube by myself except when my mum guides me to the right channel.” (Boy R5)*

*“I am 4yrs old. I like to watch YouTube about kids cooking, and I like music and can dance very well. My favorite music star is Nicki Minaj. I like a cartoon like the Princess and Ann Babies, and I like the cartoon because its is so nice.”(Girl R4)*

It has made it possible for the parents that most of their children watched cartoons on the net as well. Moreover, most of the children, especially the younger ones were used with their iPads and laptops that give some concern but they just had to manage the situation in a healthy way. Parent-R4 said:

*“The children are not permitted to have Facebook, Twitter or Instagram accounts, but they always ask permission to register for the account that I do not let them us as a parent for security reasons and I will always be worried about how they make use of it in my absence if I do allow them. However, I am anxious if the children are alone at home and using the Internet, as there are many sites that do not need adult signatory online before use, and they will not understand if they should watch it or not, but I prefer to be at home so that I can monitor their Internet activities. I always ask my children if their friends always encourage or push them to look at something illegal online, because anytime I am at work I am always worried about what the kids are doing in school, and what they are watching when are back home but anyway, I have been managing the situation very well.” (Parent-R4)*



## 5.2 Risk involved with children using the Internet

There are various risks involved with children using the Internet, and this depends on how the parent monitors their children's activities. While interviewing the parents, some of their kids were busy browsing the Internet and watching cartoons which shows the sign of addiction. However, when it was the children turn to be interviewed, they responded to my questions while busy with their iPad and laptops playing games and watching cartoons. However, if parents monitor their children's Internet activities on a daily basis, then the risk involved in young children's Internet activities will be reduce, but despite the available risk, children will still be getting more and more used on the Internet since they are in the digital era. Parents need to be very vigilant and sensitive to their children's Internet activities because nowadays the bad side of using internet has become a state of concern based on the way young kids watch pornography, dance to music that is unhealthy for them and visiting social networking sites that are harmful to their knowledge of life experiences. For example, during the interview (Parent R4) talk briefly about her child singing and watching Nicki Minaj video music and I asked her how concern she was about such scenario. She said

*"I am worried and concerned anytime I am not with my children, so anytime she uses my iPad for watching movies and playing games, I make sure I monitored what she was watching since the YouTube account is registered under my name. so I am always worried about her internet activities but anytime I look at her online activities, I discovered that she has nothing inappropriate to do online and based on the trust, I give her free hand sometimes my child likes to watch kids program at which they cook on the Internet and the program is for children between 5-8 yrs, but she loves watching them. In the video, a girl who is 7 is cooking with her younger sister who is 4 and that scene interested her a lot. She also likes music and watches music above her age like Nicki Minaj, but I try to caution her to stop watching it, which she did, but I do still monitor her well. Her favorite music star is Nicki Minaj, which sounds strange to her for a small girl to be watching. Moreover, that makes me worried sometimes because Nicki Minaj dances naked on a video sometimes, and I had to stop her watching it. If I am going to work, I take my iPad with me so that they do not watch any inappropriate movies."*(Parent R4)

## 5.3 Parent concern about children Internet use

There are various concerns from the parent's perspective on their children's Internet activities. The parents are concerned and are trying to find ways to keep an eye on their children. Being concerned as parent towards their children's Internet activities when they are not with them is very rampant and every parent that means well and wants great success for their children must be ready to guide and protect them from any Internet activities that will be harmful to them at their age. Like some Parents said:

*"I am worried about my son Internet activities because he does not know how to visit those web pages to watch things outside his scope. So that causes me not to be worried, but I do monitor him often to see what is he doing because you never know since he is a kid born in the IT generation. However, anytime I am busy cooking, I put on the game's sound, so that I can hear what he is is doing and based on the sounds I hear, I can understand and know what my children is doing and how busy my child is with his phones or iPad."* (Parent R2)

*“Yes I am concern when my children are using the internet, especially when I am busy with domestic’s work, so I always monitor all they do online every time because they are kids and anything not appropriate that they see at their age, they do readily believe. So I am always a concern when I am not with my children. My daughter watches things on the YouTube that are above her level that is a program called 7 Super Girls. She is used to it, and the program is for children from ages 10-15, but I monitored the program a lot since it is above my daughter age level.”(Parent-R1)*

Many parents are not keen to monitor how their children use the internet depending on knowledge of how secure their children are with Internet use and how their children follow the rules and regulation of Internet use in the home and the majority of parents even prefer to be around their kids when using the Internet for proper security because young children can be unpredictable in this digital world. Parents even preferred their children to use the Internet in the evening when back from school, that is after the necessary domestic activities and their homework is done. Like parents said:

*“They usually used the internet after they come back from school in the evening. I also use the internet to keep them busy when I am busy doing some domestic work at home. Sometimes they use it every day in a week or 3 times in a week depending on the state of things.”(Parent-R5)*

The children are known as the Digital natives (Prensky, 2001), of this current generation, whereas a generation earlier is called the digital immigrants which some have no clue about what their children are doing while being online, whom they meet, whom they talk to, what games they are playing and what sites are they visiting.

Online opportunities that young children experience on the internet positively equate the online risk they faced, and this is a vice versa approach because the more young children faced online risk, the more they face opportunities which is why if parent try to reduce what the young children do on the online in other to protect them from internet risk then we are also hindering them from seeing and experiencing the opportunities that may affect them positively in the future and that’s why it’s paramount to act wisely and know what to do and how to do it wisely in anything relating to young children and internet users. Like Girl R1 said:

*“I am 6yrs old but I like watching 7 super girls on YouTube which is mainly for teenager or adult movies but I learnt how to do gymnastics from the program that is good for me to have a good shape at my young age. My brother also watchwith me sometimes. :)” Girl R1*

And also, how many parents can mentions 5-10 educational websites, healthy computer games sites and cartoon for their children to visit in other to learn something positive because some parents are busy focusing on other things rather than giving their children adequate attention by showing them authentic websites their children could visit that will be of positive use to them and rather than protect them from online risk and making the children to loss online opportunities along the line.

## 6. Discussion and Implications

In this chapter, the interview result is used to answer the research questions “What parents think about their children’s Internet use” and the answer is gotten through the discussion. Literature review and my own opinion is also discussed in order to buttress the influence or effectiveness of the data material gotten via the interview.

### 6.1 Research results and contributions

The result focuses on the participants R1 to R5 and (Parent R1 to Parent R5) which represent the variables of children with their corresponding parents. From the research study, we can summarize the research findings using the results obtain based on the result question. The result on Responded R1 a six years old girl exposed what exactly the six years old does on the internet. Through the responded Girl R1 we are can conclude that most of the children of the age below six use the internet to watch cartoons and play online games. On the other hand Responded Boy R1 <3years, explains that he watches cartoon and the sevens super girls on YouTube, which is a program above his age. From these findings we are able to conclude that internet usage in younger children is not only influenced by the parents but also older siblings as we had seen that Boy R1 watched program above his age due to the influence of her sister.

Additional we can briefly, analysed the results based on the parental perspectives and guidelines.in the research we can determine that the respondents (Parent-R3), (Parent-R2) and (Parent-R5) were well aware of the internet behaviour amongst their children. (Parent-R3) was more resilient, on the internet behaviour of their children on the internet. The respondent is aware that their site that requires authorization to access the adult information, therefore, creates the importance of monitoring the behaviour of the children to ensure that they do not compromise the internet access by gaining access to adult contents.

On the parental control, the research did discover that some parents define and determine what exactly their children should interact with on the internet. Parent-R4 said,even though has been prompted for permission by her daughter (*Girl R4*) to use social networking sites has for security purposes declined her request fearing the risk exposed to her daughter while interacting with then social networking sites. Respondent (Parent R2) stated that they are constantly worried about the internet usage of their children and monitors the behaviour of their children online while performing their duties.

The results presented above suggest that there is great influence by parents on how the younger children below the age of nine years old engage themselves on internet based platforms. The results further suggest that there is a need for parental monitoring and guideline of younger children as they use the internet. These are attributed to the risk factor involved in the internet such as accessing inappropriate content such as adult information that can cause many damages to younger children.

## 6.2 Methodological considerations

This thesis is a qualitative research through semi-structured interviews, questionnaires, and observations. The families interviewed had been given the questionnaires earlier and then they were interviewed regarding their experiences and everyday fears regarding their child's Internet usage. It was observed that while interviewing the mother; that she kept on monitoring the kids while doing her interview with me. The kids were busy with their iPad; laptop and phones playing games and watching movies. The children can operate phones and iPads very well on their own. They are trying to use one stone to kill two birds. i.e. while being interviewed the children were busy playing games and responding to an interview at the same time. It shows how addicted the kids are on the Internet in this era. They showed a hard-core "Digital Native" attitude. For example, the last child from the parent is just watching what his brothers and sisters are doing, watching a cartoon with them; she is still in the learning process. Boy3R3, who is 4 years old, was operating his iPad, and he is more addicted to games and movies on the Internet because he was born in the core technology age more than his elder brother and sisters. About 70% of the young children, I interviewed during my research method chapter were there with their mobile phones. Though some of them cannot get to the internet because they do not own phones, they can still access the free wireless connection available to them which has not restrictions on age limit since the young children phones is not restricted or registered for security or prevention purposes

The young children's addiction does make everyone apprehensive of the technology yet it is true that this behavior as a usual part of their lives as digital natives. A thing that was observed keenly was that the children should be using these for their homework and not only for playing games or for watching videos. The parents stand corrected when they worry about the online safety and physical effects of using Internet and computers and iPads. This calls for intervention from some higher authorities to filter the net and direct the energies of the children towards constructive work that also can be done by means of the Internet and the computers. The results can be summarized as; the children were allowed to use the Internet when the parents were home. Most of the children watched cartoons on the Net as well. The children, the younger ones, were addicted to their iPads. The parents do let their children use the new gadgets and the Internet, but they are troubled about the online safety of their children, so most of them are not allowed to use social sites. The level of addiction to cartoons and games is high enough.

The results along with the interviews make one realize that the children are becoming addicted to cartoons and games at a very young age, children as young as 2-5 are using the mobiles and ipads to watch cartoons and even music videos. Somehow it is true that the children are unable to spend even a day without their modern gadgets and life without the Internet is utterly unthinkable and impossible for them. However, the surveys all over the world have proven that the children are the masters of the game as they are born with the intellect and speed required to survive in this swift age and era. Based on the study results, I can confirm the belief that some children are excessively exposed to excessive internet use and the negative outcomes, and these are those children who are older, who exhibit high levels of sensation-seeking and have emotional

problems. Spending excessive time online may lead these children, who are by now psychologically weak and defenceless, to reach pathological levels of extreme use

### 6.3 Theoretical implications

This study concedes to the notion that the Internet and the digital paraphernalia are necessary and useful. This should be linked strongly to the educational requirements and curricula, thus facilitating both the children and the teachers and opening up new horizons of learning for I believe for both of them. The most common feature of these studies is the consent amongst them regarding the excessive usage of digital devices and Internet media by young kids. By young, we mean toddlers till adolescence. The paper by Kinnula, Iivari and Ijäs (2012) offers a quick look at what is important and what is not in the lives of young people, which can provide extremely valuable information for the further innovations and design of Internet-based applications. However, there is a dire need to understand in which manners these users are dissimilar from their elders. On the other hand, parents and ICT educators, need to comprehend better the influences and impacts of this swift change in habits of Internet usage on the lives of the youth, who require advice and guidance when they mature enough to become adult members of society. The adolescents are a weak and almost defenseless group of Internet users. They are provided with more responsibility and more power over their lives as they age. However, their information seeking skills are at times lacking, and they probably are not decisive enough considering information neutrality. It is probable that they do not comprehend all the dangers and risks in aspects like e-commerce and might share their personal data publicly. This study featured adolescents who had taught themselves how to use the internet without any media education. Even if they get along on the Internet rather well, we might believe that these issues are supposed to be targeted in school curricula, and their parents should also take advantage of some knowledge as well to be capable of advising their children in a better way.

As Becker (2000) said in his study, that believing in linking computers and school curricula as schools need to endeavor to adopt to quick development in culture and technology. Study results point out of that even though access to computers in classes is increasing fast, recurrently conventional innovative and creative uses of computers have not been incorporated into school curricula, and several aspects influence the use of computers in schools. Considerable progress is needed if schools are to perform a valuable role in guaranteeing equal opportunity for less advantaged children while accessing and using computers. He furthers his study with the idea of children having access to school, but not at home. There are social, economic strata involved here making a few kids less privileged than the rest of them. He believes that this social divide might hinder their growth and can upset the children. Becker is being seconded by Prensky (2009) said he believes that what is required is the need to formulate Digital Native methodologies for subjects, at each and every level, using the students to guide us. The process he believes has already started. (Becker, 2000.)

However, it is still not confirmed if overusing the internet is responsible for the mentioned problems. There could be other hidden reasons. However, in my own perspective, I think the Internet use that has become an important thing for children should not be an excuse as the main effect of children's lifestyle. In my opinion, I think as parent, if we want to know the internet useful and relevant for our children then its high recommended to listening to the children often and what they have in mind

because children often react to what they see on the internet, and it's crucial that we parents don't overdramatize to their experience. I think some parents who look after their children are more vulnerable online, and the reason could be they had a trouble during their childhood that gives them the alertness in protecting their children's information online so that they cannot be necessarily traced by predators with a negative motive. I recommend parents to handle their children's internet vulnerability in a positive way and not just telling them alone about how dangerous the internet is and banning them from using the internet which will not still solve the problem, because if you do ban children, they will often do the same thing anyway in secret and we parents will not have the chance to support and advise them. I think as a parent, the real key issue is the relationship with the child by building a closer relationship with the child or young children, building the trust by telling them you are to them as the most important person they can trust if they are experiencing any challenges.

I remembered my son who broke his leg by trying to fly from the staircase of my home because he is fond of watching Superman cartoons and he thought he too could do as Superman did anytime he watched the Superman cartoon online but if I as his parent had been sensitive enough to guiding and monitoring him, and telling how unreal it was rather than just a fantasy and not behave like such in practicalities, he will not have wounded himself by such an act. However, how many parents are aware of the free internet access in the cities of Finland, for example, which is a secure channel for the young children to have direct access without anybody monitoring them? There are still many loopholes that need adequate security measures that are still lacking. Mobile phones divert the attention of learning in classrooms though it does not form sufficient grounds to ban them in classrooms. Schools that allow them in classrooms demand that they be switched off during class time thus effectively curbing the nuisance. Mobile phones have significantly transformed lives of students. They can use them to set and distribute notices of an academic nature, timing science experiments, and recording lessons and as a source of entertainment and relief when fatigued from a long day in class.

Safe Internet campaigns explain about how the governments are working diligently all over the world making programs for the safe Internet usage of children; Home based parental approaches encourage that parents should be learning how to use the mesh and how to block the undesired websites. The children and their usage should be observed as long as they are not independent. The freedom of online or Internet use should not be encouraged, including the resolutions of homework, and the school-based approach explain about how schools are now working on such matters even though they are not focused on by the establishments to block undesired sites, specifically in schools. This chapter and the earlier one both have been targeted for a review of the relevant literature. The relevance is of previously done papers and thesis to the current research is of utmost importance as they lay the turf for further developments in the field and can even come up with an entirely new hypothesis to be tested. In order, to sum up, the literature reviewed here it will be enough to state that the children use the Internet excessively. It has shown that with the help of statistics that the children are mostly online even within the distance to their homes or schools, thanks to the Wi-Fi connections on handheld gadgets like mobile phones and tablets.

The children are being termed as Digital Natives whereas a generation earlier is called the digital immigrants. These are those who have almost no idea what their children are doing while being online, whom they meet, whom they talk to, what games are they

playing and what sites are they visiting. These are the concern of every parent in the region. Mostly the parents are clueless, yet this study was able to find out that the parents are concerned and are trying to find ways to keep an eye on their children. In my own perspective, there are ways by which parents could protect or guide their children from being a victim of internet predators such as installing internet filter software's that try to filter out bad guys either by filtering content and images but it's Despite that, there are still some limitation on such recommendation but a parables says that half bread is better than none. Looking on the child internet browser history is also a vital protecting protocol parent need in monitoring their children internet activities. But unfortunately that doesn't taken into account because devices such as iPads, PDAs, laptop computers with wireless technology, the ability to log on at any place anytime for any purposes is also a concern that need proper attention on how to reduce the security gaps for the benefit of our young children. I believe that there are things that can be done in checking your child internet activities history, getting filter software, checking your children mobile history on a daily basis, and talking with your children regularly about the internet issues so that they do not establish or create their vulnerable environment.

With all these researchers supporting the use of Internet and digital devices for the educational purpose, think that children use these for non-educational aspects as well that might be quite dangerous at times and risky. This implies that the parents and teachers should play a decisive role here and should ensure a child's safety against any risk presented by the Internet surfing or socializing on the social networks. (David Smahel et al. (2013). Moreover, also results of this study, I recommended that parents should be actively aware of the online activities of their children through discussion and support, more than ever, not necessarily only when there is a problem. It may promote positive family relationships by creating a healthy atmosphere in the family. It could encourage children to accept easily parental control on internet use. They move further with the suggestion that policy initiatives back up parents in creating active strategies to consent to their children's online activities by augmenting their opportunities and digital literacy along with safety skills. This could be the cause of a reduction in complicated uses of the Internet while augmenting children's flexibility to harmful experiences online. Optional training courses and awareness-raising campaigns for parents might help them be further valuable, particularly where the parental mediation of Internet use of the children is discussed in the milieu of general parenting styles.

## 7. Conclusion

The internet phenomenon presents one of the inevitable changes due to technological advancement. Rather than abhor it due to the challenges it poses to children, it would be better if means are developed to eradicate the difficulties or if impossible, mitigate the effects of the challenges themselves. Barring children from accessing the internet would not be an option because if children properly use the internet, it offers them and the society more benefits than the demerits. This work leads to the determination that the responsibility to protect children from internet harms falls on everyone. This means adults, the state and institutions such as schools and any other areas where students spend time and have access to the internet. However, the greatest responsibility lies with parents who have the best opportunity to monitor children and control their behavior. The onus first lies with the parents to regulate the amount of time children spend on the internet, what they have access to and what they can do while on the internet. If measures are put in place by the government with well-laid parameters of responsibility, implementation will better protect children. Then, the question arose, "How do Young children use the internet?" Moreover, the thesis responses or answers the question. This thesis has made some contributions towards young children as internet users and how the internet is being used by them.

First, the thesis provides a related research on young children and their relationship with technology advancement. All in all, the internet is like fire. If properly utilized, the gains are exponential. On the other hand, misuse of the internet can destroy the society by destroying the lives of children making them irresponsible adults. Somehow it is true that the children are unable to spend even a day without their modern gadgets and life without Internet is utterly unthinkable and impossible for them. However, the surveys all over the world have proved that the children are the masters of the game they are born with the intellect and speed required to survive in this swift age and era. Although they believe that there are children who are excessively vulnerable to the excessive use of internet and its adverse outcomes and these are those children who are older, exhibit high levels of sensation-seeking and have emotional problems. Spending excessive time online may lead these children who are by now psychologically weak and defenseless to reach pathological levels of extreme use.

Second, this thesis shells out some insights and in-depths on what parents think about their children's Internet use in practice. During the interview session of this study research, the parents who are known as the digital immigrants introduced how their children use the internet in every aspect they are aware of. Some of the parents told how their children use the internet and monitoring their internet activities while being online, who they meet, who they talk to, what games they are playing and what sites are they visiting. Moreover, this is what gives them concern as a parent because the majority of them are not aware of the day to day technology advancement which could be of help by getting updated which could be one of the help in protecting their children from being vulnerable to some of the barbaric effects of internet. Young children with internet use are like sex education for young teens at their puberty age. Which parent takes seriously. It is very vital for a parent to teach and lecture their kids on a daily basis



so as to help them to know and understand right from wrong. The young children's addiction does make everyone apprehensive of the technology yet it is true that this behavior as a usual part of their lives as digital natives. The important use of internet and technology gadgets for the young children should be using these for their homework and not only for playing games or for watching videos. The parents stand corrected when they worry about the online safety and physical effects of using Internet and computers and iPads. This calls for intervention from some higher authorities to filter the net and direct the energies of the children towards constructive work that also can be done by means of the Internet and the computers. I as parent, need to reason more deeply about the balance between online opportunities and online risk, because we, parent, are really concern about the risk of our children internet activities and not the opportunity advantage that is there for our children to buttress online. It is high time we parent prioritized the some of the benefit of the internet in the life of our children. I am sure there are many things to be right and also concern about on children as internet users such as chatting with strangers online, pornography, violence website that encourage self-hate and vandalism and some of this things bothered the children and made them upset.

This thesis also experienced some limitations such as small amount interviewees, inadequate number of parents and children from different background and nationalities that should buttress more insight on the thesis, insufficient research papers that's related to children and internet use, which shows that researchers are not focusing more in this area that need more attention since its deals with children connectivity. Some of the parent and their children are shy to express their full concern about the young children and internet use, maybe because they are being on audio and video that may put some of them in a shy situation in expressing themselves perfectly well. Possible future search questions related to this thesis topic should be on "How Young children could be ethically protected on the internet". This related research is very vital because it is one thing for children to use the internet, it is another thing for them to be technological, morally and emotionally prevented from being a victim of internet hazards.

Based on the future research, I hope to acquire more children and parents from different background to know more information's and asked as many questions as possible which will show different comparison of children internet use from different background and culture. It will be interested to know if the young children from the third world or developing countries with high poverty rate could be also called the digital natives and also to know if the adult in this generations who knows and understand technology perfectly well could be called the digital immigrants. There are many gaps and research that need more explanations that be highly interested to further into

Another research area to focus on is the protection of the young children from the internet. How could they be secure and what are the new rules that could be proposed in other for young children to be protected from internet dangers. The nonexistence of the word Digital Immigrants could be scrapped off by the year 2040-2050 because most born before the technology would not be existing on this planet earth and what name would be given to the Digital natives of this generation either in the next 40 years or would everybody be called Digital Natives or what? That is an interesting questions and concern that needed to be unraveled.



## References

- Bates, D. (2013). One in three kids uses a mobile before they can talk. Retrieved 29 August 2014, from <http://www.dailymail.co.uk/sciencetech/article-2478328/One-kids-use-mobile-phone-tablet-speak-sentences.html#ixzz3BckA7RiV>
- Becker, H. J. (2000). Who's wired and who's not: Children's access to and use of computer technology. *The future of children*, 44-75.
- Berg, B. L. (2001). *Qualitative research methods for the social sciences* (Vol. 4). Boston: Pearson.
- Biocca, F., Jackson, L., & Von Eye, A. (2003). Children and Internet Use. *Social, Psychological and Academic Consequences for Low-Income children*. <http://www.apa.org>. Retrieved 27 August 2014, from <http://www.apa.org/science/about/psa/2003/12/jackson.aspx>
- Broadbent, H., Fell, L., Green, P., & Gardner, W. (2013). Have your Say: Listening to young people about their online rights and responsibilities. Plymouth: Childnet International and UK Safer Internet Centre. Retrieved from <http://www.saferinternet.org.uk/research>
- Cavanaugh, C., Gillian, K. J., Kromrey, J., Hess, M., & Blomeyer, R. (2004). *The Effects of Distance Education on K–12 Student Outcomes: A Meta-analysis*. Naperville, Ill.: Learning Point Associates.
- Cooper, A. (2002). *Sex and the Internet* (1st Ed.): New York: Brunner-Routledge.
- Council, N. (2003). *The Internet Today*: Nap.edu. Retrieved 27 August 2014, from <http://www.nap.edu/netsafekids/Internet.html>
- Cyberethics.info (2011). Risk of the internet use. Retrieved from [http://cyberethics.info/cyethics1/index.php?option=com\\_content&view=article&id=160&Itemid=30&lang=en](http://cyberethics.info/cyethics1/index.php?option=com_content&view=article&id=160&Itemid=30&lang=en)
- Druin, A. (2002). The role of children in the design of new technology. *Behaviour and information technology*, 21(1), 1-25.
- Esrb.org. (2006). Entertainment Software Rating Board. Retrieved 4 September 2014, from <http://www.esrb.org>
- Fearn, H. (2008), grappling with the digital divide, *Times Higher Education Supplement*, 14 August, page 37-40.
- Graeme, P. (2008). "Mobile phones 'boost school standards.'" Daily Telegraph.

- GSM Association (2013). Children's use of mobile phones: An international comparison. NTT DOCOMO. Inc, *Japan: Mobile Society Research Institute*.
- Helsper, E. J., Kalmus, V., Hasebrink, U., Sagvari, B., & De Haan, J. (2013). Country classification: Opportunities, risks, harm and parental mediation.
- Holloway, D., Green, L., & Livingstone, S. (2013). Zero to Eight: Young children and their internet use.
- (Horzum & Bektaş, 2014)Horzum, M. B., & Bektaş, M. (2014). Examining the Internet Use Aim and Internet Parental Style of Primary School Students in Terms of Various Variables, (3), 745–778.
- Iannelli, Vincent. "Kids and Cell Phones." About.com. 16 May 2009. [http://pediatrics.about.com/od/otherparentingissues/i/kids\\_cellphones.htm](http://pediatrics.about.com/od/otherparentingissues/i/kids_cellphones.htm) (accessed September 1, 2014).
- I-chia, Lee. (2011) "Survey shows children increasingly Web-savvy," *TaipeiTimes*. <http://www.taipetimes.com/News/taiwan/archives/2011/06/02/2003504768> (accessed September 1, 2014).
- InternetSociety.org. (2012). Global Internet user survey summary report. Retrieved 30 November 2014, from <https://www.Internetsociety.org/sites/default/files/rep-GIUS2012global-201211-en.pdf>
- Joanganzcooneycenter.org, (2014). Joan Ganz Cooney Center - Publications. Retrieved 28 August 2014, from <http://www.joanganzcooneycenter.org/publications/>
- Keen, A. (2007). *The Cult of the Amateur: How today's Internet Culture is Killing Our Culture and Assaulting Our Economy*.
- Kinnula, M., Iivari, N., & Ijäs, T. (2012, October). On the brink of adulthood: a qualitative study of adolescent engagement with the internet. In Proceedings of the 7th Nordic Conference on Human-Computer Interaction: Making Sense through Design (pp. 418-427). ACM.
- Leadbeater, C. (2009). *We-think*. Profile books.
- Lifeonline. (2012). Digital Agenda Scoreboard. Retrieved 24 July 2014 from [https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/scoreboard\\_life\\_online.pdf](https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/scoreboard_life_online.pdf)
- Livingstone, S. (2003). Children's use of the Internet: Reflections on the emerging research agenda. *New media & society*, 5(2), 147-166.
- Livingstone, S., & Helsper, E. (2009). Balancing opportunities and risks in teenagers' use of the Internet: The role of online skills and Internet self-efficacy. *New Media & Society*.

- Livingstone, Ólafsson, O'Neill, & Donoso, 2012) Livingstone, S., Ólafsson, K., O'Neill, B., & Donoso, V. (2012). Towards a better internet for children: findings and recommendations from EU Kids Online to inform the CEO Coalition. Retrieved from <http://eprints.lse.ac.uk/44213/>
- Macgill, A. R. (2007). Parent and teenager Internet use. Pew Internet & American Life Project.
- Madden, M., Lenhart, A., Duggan, M., Cortesi, S., & Gasser, U. (2013). *Teens and technology 2013*. Washington, DC: Pew Internet & American Life Project.
- Mills, R. S., & Rubin, K. H. (1998). Are behavioural and psychological control both differentially associated with childhood aggression and social withdrawal? *Canadian Journal of Behavioural Science/Revue Canadienne des Sciences du comportement*, 30(2), 132.
- Ofcom (2014). Children and parents: *media use and attitudes report*: Retrieved 28 November 2014, from [http://stakeholders.ofcom.org.uk/binaries/research/media-literacy/media-use-attitudes-14/Childrens\\_2014\\_Report.pdf](http://stakeholders.ofcom.org.uk/binaries/research/media-literacy/media-use-attitudes-14/Childrens_2014_Report.pdf)
- Pääjärvi, S. (2011). CHILDREN'S MEDIA BAROMETER 2011. As of March, 13, 2014.
- Park, S. (2012). Effects of Home Environment on Internet Use and Dependence of Children and Adolescents. *Selected Papers of Internet Research*, 1.
- Pew Research Center's Internet & American. (2013). Retrieved from <http://www.pewInternet.org/2013/03/13/main-findings-5/>
- Prenkysy, M. (2001), *Digital natives, digital immigrants*, *On the Horizon*, Vol. 9 No. 5, pp. 1-6.
- Prenkysy, M. (2005), *Listen to the natives*, *Educational Leadership*, Vol. 63 No. 4, pp. 8-13.
- Plowman, L., Stevenson, O., McPake, J., Stephen, C., & Adey, C. (2011). *Parents, pre-schoolers and learning with technology at home: some implications for policy*. *Journal of Computer Assisted Learning*, 27(4), 361--371.
- Potter, W. (1996). *An analysis of thinking and research about the qualitative method*. Mahwah: NJ. Lawrence Erlbaum Associates.
- Richards, R., McGee, R., Williams, S., Welch, D., & Hancox, R. (2010). Adolescent Screen Time and Attachment to Parents and Peers. *Archives of Pediatrics and Adolescent Medicine*, 164(3), 258-262.

- Rochman, B. (2011). *Young Kids Increasingly Use the Internet Regularly*. Family Matters. TIME Magazine. Retrieved from <http://healthland.time.com/2011/03/18/young-kids-increasingly-hang-out-online/>
- Safenetwork.org.uk, (2014). Be aware of the potential online risks to children and young people. Retrieved 28 August 2014, from [http://www.safenetwork.org.uk/help\\_and\\_advice/Pages/potential\\_online\\_risks.aspx](http://www.safenetwork.org.uk/help_and_advice/Pages/potential_online_risks.aspx)
- Sawmy, K. (2013). The impact of Internet use for children and adolescents. Presentation, <http://www.gov.mu/portal/sites/sid2011/files/Miss%20Sawmy.pdf>
- Selwyn, N. (2009, July). The digital native myth and reality. In *Aslib Proceedings* (Vol. 61, No. 4, pp. 364-379). Emerald Group Publishing Limited.
- Staksrud, E., & Livingstone, S. (2009). Children and online risk: powerless victims or resourceful participants? *Information, Communication & Society*, 12(3), 364-387.
- Strauss, A. L., & Corbin, J. M. (1990). *Basics of qualitative research* (Vol. 15). Newbury Park, CA: Sage.
- Strom, R. D., & Strom, P. C. (2009). *Parenting young children: Exploring the internet, television, play, and reading*. Charlotte, N.C: Information Age Pub., Inc.
- Subrahmanyam, K., Smahel, D., & Greenfield, P. (2006). Connecting developmental constructions to the Internet: identity presentation and sexual exploration in online teen chat rooms. *Developmental Psychology*, 42(3), 395.
- Superintendent Article (2013). *Students & Internet Safety*: Retrieved 20 August 2014, from <http://www.isd361.k12.mn.us/archive/supermessages/supermessage-apr13.pdf>
- Tapscott, D., & Williams, A. D. (2008). *Wikinomics: How mass collaboration changes everything*. Penguin.
- The center of technology (2014). *How the Internet is changing life and business*. Retrieved 24, July 2014 from <http://www.centertech.org/how-the-Internet-is-changing-life-and-business.php>
- The center of technology (2014). *How technology has changed our lives in the last five years*. Retrieved 24, July 2014 from [https://prezi.com/p0x2\\_zm9km\\_7/how-technology-has-changed-our-lives-in-the-last-five-years/](https://prezi.com/p0x2_zm9km_7/how-technology-has-changed-our-lives-in-the-last-five-years/)
- Internet world stats.com. (2014b). *World Internet Stats. Usage and population statistics* Retrieved 16 October 2014, from <http://www.Internetworldstats.com/stats.htm>
- Internet world stats. (2014b). *Internet usage and population statistics for Oceania: Australia*. Retrieved October 17, 2014, from <http://www.internetworldstats.com/stats6.htm>

- Yin, R. K. (2010). *Qualitative research from start to finish*. Guilford Press.
- Young Children Consuming More Digital Media. (2011, Jun 9) Retrieved from <http://www.emarketer.com/Article/Young-Children-Consuming-More-Digital-Media/1008435>
- Young, K. S., & de Abreu, C. N. (Eds.). (2010). *Internet addiction: A handbook and guide to evaluation and treatment*. John Wiley & Sons.
- Zur, O., & Zur, A. (2009). *On Digital Immigrants & Digital Natives*. *Zur Institute available online*.

## Appendix A Semi-structured Interview Questions

### **Interview questions for parent**

1. How do their children use the Internet?
  2. How do you monitor the children Internet activities and at what age do they started using the Internet?
  3. What the things their children are not allow doing on the Internet and
  4. When do the children use the Internet?
  5. How worried are you when their children are using the Internet.
  6. What are the things their children are not allow doing on the Internet?
  7. How do they keep their children safe online?
- 

### **Interview question for children**

1. What is your name?
2. Can you briefly tell me about how you kids use Internet
3. What kinds of cartoon do you like watching?
4. Did your parent allow you to use Internet always?
5. Could you show how to operate your iPad and mobile phone
6. Can you show me how it been play
7. At what age do you start using IPad, and watching movies and cartoons?



8. What kinds of game do you like watching?

## Appendix B: Consent Form

**Name of the Project:** Lapset ja tietoyhteiskunta, Autumn 2014

**Name of the sponsor:** University of Oulu, Department of Information Processing Science, EveLINE research group

**Person in charge:** Marianne Kinnula, Ph.D. (provides also additional information concerning this project)

**Full name of participant** \_\_\_\_\_

**Date of birth** \_\_\_\_\_

I hereby give my consent to participating in the above mentioned research and to collecting research data related to the research. I also grant permission for the research group to store and use the data for research purposes. Before signing this consent form, I have got acquainted with the attached research description, its goals and the procedures related to collecting research data. I am aware of being able to withdraw my consent at any time by informing the person in charge about my wish.

\_\_\_\_\_

Place and date  
his/her guardian

\_\_\_\_\_

Signature of the research participant or

I hereby confirm that the research group will use the data according to the good practices of research ethics and the regulations stated in the privacy protection law. The research participant will be given a copy of the consent form, signed by the researcher responsible of the research effort.

\_\_\_\_\_

Place and date  
research effort

\_\_\_\_\_

Marianne Kinnula, researcher responsible of the

## ANNEX – INFORMATION ABOUT THE RESEARCH

**Research project:** Lapset ja tietoyhteiskunta 1.7.2014 – 31.12.2014

### Background for the research

*Site of research:*

University of Oulu

*Linkages to other projects:*

The Research Group conducts its research through several subprojects. In all the sub-projects, the goal is to understand and support participatory design, user-centered design, user innovation and human interaction with technology in divergent everyday life contexts (<http://www.oulu.fi/tol/node/20094>).

*Academic theses:*

In the research, data will be gathered for several academic theses and publications. The research group is responsible for choosing the authors and supervising the research.

*Research schedule:*

The research data will be collected in September 2014 – October 2014 within a student project at the Department of Information Processing Science at the University of Oulu. Data analysis and the elaboration of conclusions will continue even after this and the publication of results as academic theses and scientific articles will be extended over a longer period of time.

*Contact persons*, who are available for additional information on this, and other subprojects are the following:

Marianne Kinnula

### The aim of the research, goal and significance

The area of the research is to understand what parents think about their children's Internet use. The research endeavours at explaining children's extensive, excessive, addictive and impulsive aspects of digital utilization, especially the use of Internet. The research project will also focus on the evolution of the Internet use and the role of children in shaping the market for the manufacturers of digital media.

The research area of the group is information technology in its various forms embedded in everyday human practices. The research group focuses on understanding and supporting participatory design, user-centered design, user innovation and human interaction with technology in divergent everyday life contexts. Generally, the research group acknowledges that information technology has become intertwined and embedded in almost all parts of our everyday life, including leisure and civic activity, thereby establishing new forms of participation and design. Hence, "users" cannot be considered as passive consumers anymore, but at least as content producers if not even as (co-)designers and innovators. This calls for reconsidering the traditional understandings of the roles of users and designers as well as for different development approaches that place emphasis on users' empowerment and inclusion in designing, shaping, innovating and co-creating information technology in their everyday life.

**Data to be gathered during research**

Research data will be gathered during the project through observation, interviews, activities and exercises, and questionnaires, for example. During the research, textual, pictorial and video data will be produced. Such data may also be combined in the analysis phase.

**The use, protection and storing of data**

Research data will be utilized only in academic research (including theses for degrees) and teaching, and they will not be used for commercial purposes. In the publications and scientific presentations, the data will be used respecting the participants' privacy maintaining their anonymity. The research data may also be stored as such for longer-term use in research and teaching. In such a case, the data will be archived in the Department of Information Processing Science, University of Oulu. The archived data can be used by the members of the Research Group (research staff and their research partners) and the students they supervise in conducting their thesis research.