

Youth of Turkey Online

An Exploratory Study of the Turkish Digital Landscape

3 November 2011

Authors:

UNICEF New York, Division of Communication, Youth Section
Gerrit Beger, Priscillia Kounkou Hoveyda, Akshay Sinha

Collaborators:

UNICEF Turkey, Division of Communication, UNICEF CEECIS Regional Office,
John Budd, Lely Djuhari, Emel Ozdora

Contributors:

Ece Dincer, Melanie Zuch, Daniel Kennedy

CONTENTS

ABSTRACT.....	3
SUMMARY OF FINDINGS.....	3
THE DIGITAL CITIZENSHIP AND SAFETY PROJECT & THE YOUTH SECTION AT UNICEF	4
1. INTRODUCTION	5
1.1. Background	5
1.2. Objective	5
1.3. Methodology	5
2. CONTEXT	7
2.1. Overview of Turkey.....	7
2.2. Selected overview: technological context.....	8
3. OPPORTUNITIES	12
3.1. Digital access	12
3.2. Digital activities.....	13
3.2.1. User generated content: blogging	15
3.2.2. Turkey e-commerce.....	15
4. IDENTIFYING SAFETY RISKS	16
4.1. The risks.....	16
4.1.1. Malicious software and piracy	16
4.1.2. Exposure to images or messages containing sexual content	17
4.1.3. Sharing of personal information	17
4.1.4. Cyberbullying	18
4.1.5. Talking to and meeting strangers	20
5. ICT INITIATIVES IN TURKEY	21
6. INTERNET CONTROL IN TURKEY	22
7. LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH.....	27
8. CONCLUSION.....	27
GLOSSARY	28

ABSTRACT

This exploratory paper is part of a series examining the role of the Internet in the lives of youth living in the Central and Eastern Europe and Commonwealth of Independent States region. This report focuses on Turkey and bases itself on secondary evidence gathered through a desk review of relevant literature. The report first presents the technological context of Turkey and the peculiarities of its digital landscape. The Internet in Turkey provides a range of technological platforms to a population that exchange overwhelmingly on western-based websites. The next section investigates the use of Information and Communication Technologies (ICTs) by Turkish adolescents and young people. Research identified a number of characteristics unique to the Turkish digital landscape, including a persistent gender divide in Internet access and use, frequent visits to Internet cafes among males, and the popular use of sites such as Facebook and MSN. This report then discusses the types of safety risks faced by Turkish youth when navigating the Internet. Research shows that youth are facing risks such as cyberbullying, exposure to malicious software, sharing of personal information and exposure to adult content. The next section discusses government initiatives to monitor the Turkish Internet, and the extent to which such initiatives may infringe on the freedom of expression and the right to access information. The study concludes with the assertion that the challenge in the coming years will be to encourage a safe expansion of ICT opportunities to all sectors of the population, without infringing on personal freedoms.

SUMMARY OF FINDINGS

- The Turkish Internet is dominated by western platforms such as Facebook, Google and Hotmail
- There is a pronounced gender participation gap in Turkey with regards to Internet use, with male adolescents and young people reporting higher use than their female counterparts
- Turkish adolescents and young people favour stationary Internet over mobile, and prefer to access the Internet in their own homes, though schools and Internet cafes also enjoy popularity as access points
- The primary risks faced by Turkish adolescents and young people online are exposure to malicious software, sharing personal information and cyberbullying
- The Turkish government is actively involved in promoting Internet development and monitoring online safety, although there is concern that certain legislation may infringe on freedom of expression, or be disproportionate to the risk it addresses

THE DIGITAL CITIZENSHIP AND SAFETY PROJECT & THE YOUTH SECTION AT UNICEF

This exploratory study is part of a series produced by the Youth Section at UNICEF New York through its Digital Citizenship and Safety project. The Digital Citizenship and Safety project aims to get a better understanding of the digital landscape in a range of different countries, mainly those with a developing or emerging economy. The project starts with a data collection phase, during which exploratory, quantitative and qualitative studies are conducted to then produce evidence-based communication materials to raise awareness on the optimal and safe use of the ICTs. The concept of Digital Citizenship is then advocated at the local government level through advocacy workshops, seminars and conferences on how to maximize ICTs' opportunities while minimizing risks.

The Digital Citizenship and Safety project aligns itself within the scope of work conducted by the Youth Section at UNICEF, whose mission is to work with traditional and new technologies including social networking tools, SMS and digital mapping to empower children and young people to play an active role in society.

The Convention on the Rights of the Child (CRC, 1989) guarantees the right to express views and to be heard (Art.12), freedom of expression, including the freedom to seek, receive and impart information (Art.13), the freedom of association and peacefully assembly, and the right to information (Art.17) amongst others. Although drafted before the internet became ubiquitous, the CRC is highly pertinent when it comes to young people accessing, posting and sharing content online. With the rapid development of ICT in the last decade, these rights should be analyzed and clearly applied to this digital age.

Informed by a phase of exploratory research, this project will include advocacy and policy work to inform relevant government actors about Digital Citizenship through a variety of activities and outreach materials, including tools to apply CRC to each nation's unique digital landscape.

1. INTRODUCTION

1.1. Background

The rise of the Internet triggered a lot of attention in Turkey. While Turkey's Internet penetration (40 per cent) is behind that of most of Western countries, the growth in the past five years has been substantial. Social networking, gaming, but also daily activities, such as reading the news and mailing, all happen online. The Turkish youth aged 10-24 make up a disproportionately large portion of Internet users. With continued investment in ICTs from both public and private sectors, improving access and minimizing the digital literacy gap between genders and locations, Turkey also sees continued governmental attempts to protect Internet users. While the need for protection is pronounced not only in Turkish law but also according to international conventions such as the United Nations Convention on the Rights of the Child (CRC, 1989), a balance has to be struck between the right to protection from violence, exploitation and abuse such as sexual exploitation (Article 34 CRC) and the right to express fundamental freedoms and rights such as the right to express views (Article 12 CRC), freedom of expression (Article 13 CRC), the right to assembly (Article 15) and the right to access information (Article 17 CRC).

It is in the spirit of those latter rights, that in May 2011, thousands of protesters in more than 30 Turkish cities turned out to protest a new mandatory Internet filtering system proposed by the Turkish government. Protesters opposed what they believed to be an infringement on their personal freedoms, even as the government justified the action as an effort to make the Internet safer for all.

This incident illustrates the complicated task faced by all governments in this digital age, in maintaining a balance between fostering the vast opportunities provided by the Internet, while protecting citizens from its attendant risks. As the May protests reveal, the Turkish government's proposed method for mitigating risk is at odds with civil society's demand for protected freedoms and demonstrate the growing need for understanding the behaviour of and risks faced by Turkish adolescents and young people in the digital landscape.

1.2. Objective

This exploratory study is the first output of an ongoing research effort to better understand the digital landscape and the types of safety risks faced by Turkish youth.

1.3. Methodology

Research process

To reach the study objective, a search was conducted for background information on Turkey, particularly pertaining to the use of and access to Internet, and the digital behaviour and types of risks faced by Turkish youth when online.

As an ongoing process during the research, the methodologies of studies were checked for their reliability, as were the background and experience of the sources' institutions. The reliability of

the institutions is measured using the sampling frame, the questionnaire and the experience of the institutions in conducting research in the focused area.

The literature search was conducted on the Internet in both Turkish and English. Turkish portals Mynet and Ekolay, as well as the western search engine Google were utilized. The use of local language and search tools were important in the research process, to ensure that all local sources were identified.

Sources utilized

Only the sources identified as stemming from reputable organizations, and containing large sample sizes and reliable methodologies were utilized. Government sources such as the TurkStat ICT household census of 2010, research work conducted by the Republic of Turkey Prime Ministry State Planning Organization (SPO)¹, and the Republic of Turkey Prime Ministry Investment Support and Promotion Agency (ISPAT)², the Information Technologies and Communications Authority (BTK)³, were used in gathering national ICT investment, access, use, and behaviour data. Other primary research sources used in this report include studies from the United Nations, the London School of Economics EU Kids Online project, the Organisation for Economic Cooperation and Development (OECD), the Organization for Security and Co-operation in Europe (OSCE), Freedom House, the Economic Policy Research Foundation Of Turkey (TEPAV)⁴, Middle East Technical University, Yeditepe University, University of Firat, Bilgi University, Anadolu University, Baskent University, and Hacettepe University and the Alternative Information Technology Association.

Valuing local sources and expertise

A detailed process was carried out in weighing all international and local sources in order to gather objective data, which consisted of ranking sources in the order of United Nations sources, international institutions, government sources, universities, Non-Governmental Organizations (NGOs), and private actors. For Turkey, it was found that there is a substantial amount of high quality research work done by the government and universities, and therefore significant reliance on the expertise of international and non-Turkish organizations and individuals was not needed.

In order to validate our findings and gather local perspective, we consulted local experts such as those at Middle East Technical University, Baskent University, Fatih University, Bilgi University, TEPAV, University of Firat, and Anadolu University.

A researcher translated Turkish literature into English, consulting with Turkish experts about the validity of results and reliability of sources, where necessary. Turkish language literature came

¹ The State Planning Organization is one of the top governmental agencies in Turkey and is the main policy formulation institution at the national level. It was founded in 1960 in order to accelerate the economic, social and cultural development of Turkey. (Source: Republic of Turkey, Ministry of Development, <<http://www.dpt.gov.tr/ing/>>).

² The Republic of Turkey Prime Ministry Investment Support and Promotion Agency (ISPAT) is the official organization for promoting Turkey's investment opportunities to the global business community and providing assistance to investors before, during and after their entry into Turkey. (Source: Republic of Turkey, Prime Ministry Investment Support and Promotion Agency, <<http://www.invest.gov.tr/en-US/Pages/Home.aspx/>>).

³ In Turkish- *Bilgi ve İletişim Teknolojileri Kurumu (BTK)*, (formerly known as Telecommunications Authority or in Turkish *Telekomünikasyon Kurumu (TK)*), is a Turkish national telecommunications regulatory authority. (Source: Bilgi ve İletişim Teknolojileri Kurumu, <http://www.btk.gov.tr/kurum_hakkinda/kurulus/index.php/>).

⁴ The Economic Policy Research Foundation of Turkey (TEPAV) is a non-partisan, non-profit think tank based in Ankara, Turkey. (Source: TEPAV, <<http://www.tepav.org.tr/en/html/249/About/>>).

from sources such as government institutions, educational institutions, local NGOs, and private companies.

The findings of this exploratory study were subject to a validation workshop, which took place in Ankara. The experts identified during the exploratory process were invited to share comments, feedback and any additional research to strengthen the present paper. Their edits and recommendations are included in this work.

Assessing reliability of sources

To assess the reliability of secondary sources, a source valuation matrix was created, which weighted the sources by type, date, and the expert who wrote a given study. In this process, data were carefully checked against all available sources. This mitigated the risk of valuing any invalid facts or formulating false hypotheses.

We found approximately 30 studies that contained information relevant to our objective. These studies were grouped and analysed based on the content of their results.

2. CONTEXT

2.1. Overview of Turkey

Since the creation of modern Turkey by Mustafa Kemal Ataturk in 1923, Turkey has been enjoying its geographical positioning bridging East and West. Turkey borders eight countries: Greece to the west; Bulgaria to the northwest; Armenia, Azerbaijan and Iran to the east; Iraq and Syria to the southeast; and Georgia to the northeast.⁵

Divided into seven regions, Ankara is the capital of Turkey, and Istanbul is the largest city. Turkey's regional divisions reveal socioeconomic disparities, with the Eastern and Southeastern regions less prosperous than the west,⁶ and the Marmara, Aegean, Central Anatolia and Mediterranean regions remaining relatively more developed.⁷

Turkey has a population of 73 million as of 2010. 76.3 per cent is urban and 23.7 per cent is rural. 50.2 per cent of the total population is male and 49.8 per cent is female.⁸

⁵ UN Women, Country Profile, <<http://www.unifem.sk/index.cfm?module=project&page=country&CountryISO=TR>> (accessed 28 October 2011).

⁶ United Nations Development Programme, 'The Challenge In Turkey: Regional and Gender Disparities', 2006 <<http://www.undp.org.tr/Gozlem.aspx?WebSayfaNo=93>> (accessed 10 August 2011).

⁷ Zerrin Ustunisik, Naime, 'Turkiye'deki İller Ve Bolgeler Bazinda Sosyo-ekonomik Gelismislik Siralamasi Arastirmasi Gri İlişikisel Analiz Yontemi Ve Uygulaması [The Research Of Socio-economic Development Ranking Of Provinces And Regions In Turkey: Grey Relational Analysis Method And Its Application(M.Sc. Thesis)]', Gazi University Institute of Science and Technology, Ankara, 2007.

⁸ TurkStat, 'ICT Use in Households', 2010, <<http://www.tuik.gov.tr>> (accessed 28 June 2011).

As of 2010, the GDP of Turkey was \$735,828 billion.⁹ In the first quarter of 2011, Turkey's GDP saw fast and consistent growth, and by 2015, it is expected to near \$1.25 trillion.¹⁰ As of April 2011 the unemployment rate is 9.9 per cent.¹¹

2.2. Selected overview: technological context

General technological background

The Turkish ICT sector is rapidly expanding, with a compounded annual growth rate (CAGR) of 14 per cent between 2005 and 2009. According to Business Monitor International predictions, Turkey will be the highest growing IT market in the world in the 2011-2015 period, with CAGR of 11 per cent.¹²

In the last ten years, total ICT equipment sales in Turkey have grown 130 per cent. Software sales expanded by over 500 per cent, communication technologies by approximately 225 per cent, and telecommunication equipment by 75 per cent.¹³ The growth in ICT sales shows the demand and development in the sector in both Turkish households and enterprises.

Government investment in mobile communications infrastructure increased from 2.6 billion Turkish Lira (TRY)¹⁴ in 2008 to 5.4 billion TRY in 2009, enabling improvements in access and service.¹⁵

Turkey's telecommunications leader is Turk Telekom, a former state-owned monopoly, which was privatized in 2005.¹⁶ The privatization of the company led to some competition in the industry, although the majority of the fixed line market is still controlled by Turk Telekom. There are currently three mobile operators in Turkey: Turkcell, Vodafone and Avea, who control 56 per cent, 25 per cent and 19 per cent market share respectively.¹⁷

Telephony and Internet

⁹ Central Intelligence Agency, *The World Factbook*, <<https://www.cia.gov/library/publications/the-world-factbook/geos/tu.html>> (accessed 10 August 2011).

¹⁰ 'IMF Data Suggests Turkey's GDP to exceed 1 Trillion by 2011', *Today's Zaman*, 14 October 2010 <http://www.todayszaman.com/newsDetail_getNewsById.action;jsessionid=90643DB4511578C4238A8C531CBDC054?newsId=224331> (accessed 11 August 2011).

¹¹ TurkStat, 'ICT Use in Households', 2010, <<http://www.tuik.gov.tr>> (accessed 28 June 2011).

¹² Business Monitor International, 'Turkey and Information Technology Report Q2 2011', 15 April 2011, access via Reuters, <<http://www.reuters.com/article/2010/05/19/idUS190931+19-May-2010+BW20100519>> (accessed 23 July 2011).

¹³ Republic of Turkey Prime Ministry Investment Support and Promotion Agency, <<http://www.invest.gov.tr/en-US/sectors/Pages/ICT.aspx>> (accessed 24 July 2011).

¹⁴ 1 TRY = 0.563229 USD as of 10 August 2010.

¹⁵ Republic of Turkey Prime Ministry Investment Support and Promotion Agency, <<http://www.invest.gov.tr/en-US/sectors/Pages/ICT.aspx>> (accessed 24 July 2011).

¹⁶ Republic of Turkey Prime Ministry Privatization Administration, <http://www.oib.gov.tr/telekom/turk_telekomunikasyon.htm> (accessed 24 July 2011).

¹⁷ Ibid.

In 2010, fixed line telephone ownership in Turkey was 47.4 per cent in urban areas and 23.4 per cent in rural areas.¹⁸ As in all developing countries, the number of fixed telephone lines has decreased over the years as mobile phones and Internet communications gain popularity. Internet penetration in Turkey grew approximately 158 per cent in only five years, from 15.5 per cent in 2005 to 40 per cent in 2010.¹⁹ Mobile subscriber penetration figures rose by 33 per cent in the same period, from 64 per cent to 85 per cent.²⁰ The broadband Internet subscriber penetration rate increased from 0.05 per cent in 2002 to 9.4 per cent in 2009.²¹

Of all ICT devices, mobile phones are the most commonly owned in Turkey, with ownership rates reaching 92.8 per cent in urban areas and 85.0 per cent in rural areas.²² In 2009, 87.6 per cent of households had access to a mobile phone, while only 5.6 per cent of households had access to a mobile phone with Internet access.²³ According to a 2007 survey of 228 14- to 19-year-olds by Erdur-Baker and Kavsut, it was found that approximately 80 per cent of high school students spend time on internet and communicate through mobile phones/SMS.²⁴

Turkish ICT lagging behind European peers

Despite rapid growth in the telecommunications sector in the last five years, with increasing improvement in infrastructure and the privatization of the telecommunications sector,²⁵ Turkey still lags behind its European neighbors in Internet and mobile subscriber penetration rates.²⁶ In 2007, research from the Organisation for Economic Cooperation and Development (OECD) and the EU Statistics Office concluded that household computer access in Turkey, at 10 per cent, was well below the EU average of 55 per cent. Similarly, Turkey came lowest in terms of household Internet access with less than 4 per cent, while the EU average was close to 13 per cent at the time.²⁷

In 2005, the government established the Information Society Department, responsible for the overall coordination of ICT projects in Turkey. The department subsequently launched the e-Transformation technology project, to strategize on ways to increase ICT growth in the

¹⁸ TurkStat, 'ICT Use in Households', 2010, <<http://www.tuik.gov.tr>> (accessed 28 June 2011).

¹⁹ International Telecommunication Union (ITU), 'Internet Users' 2010, <<http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/InternetUserspercentage00-10.xls>> (accessed 13 July 2011).

²⁰ International Telecommunication Union (ITU), 'Mobile cellular subscriptions, 2010, <<http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/MobileCellularSubscriptions00-10.xls>> (accessed 13 July 2011).

²¹ Ibid.

²² TurkStat, 'ICT Use in Households', 2010, <<http://www.tuik.gov.tr>> (accessed 28 June 2011).

²³ Republic of Turkey Prime Ministry State Planning Organization, 'Information Society Statistics of Turkey 2010', June 2010, <http://www.bilgitoplumu.gov.tr/Documents/1/Yayinlar/Information_Society_Statistics_2010.pdf> (accessed 5 June 2011).

²⁴ Erdur-Baker, O., & Kav[section]ut, F. (2007). Cyber bullying: a new face of peer bullying. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 27, 31-42.

²⁵ Republic of Turkey Prime Ministry Investment Support and Promotion Agency, <<http://www.invest.gov.tr/en-US/infocenter/publications/Documents/ICT.INDUSTRY.pdf>> (accessed 24 July 2011).

²⁶ International Telecommunication Union (ITU), 'Mobile cellular subscriptions, 2010, <<http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/MobileCellularSubscriptions00-10.xls>> (accessed 13 July 2011). *According to ITU 2010 mobile subscriber penetration: Turkey 85 per cent, UK 110.25 per cent, Switzerland 123.62 per cent, Sweden 113.54 per cent, Spain 111.75 per cent, Serbia 129.19 per cent. According to ITU 2010 Internet penetration: Turkey 40 per cent, UK 85.00 per cent, Switzerland 83.90 per cent, Sweden 90.00 per cent.*

²⁷ Organisation for Economic Cooperation and Development, 'Working Party on the Information Economy', October 2006, <<http://www.oecd.org/dataoecd/45/0/37605826.pdf>> (accessed 10 August 2011).

country.²⁸ Changes are already being noticed in the way the government is responding to ICT needs. In 2009, the government announced a substantial financial commitment in developing the ICT sector, with a pledge to increase IT spending from \$7.2 billion in 2009 to \$10.5 billion by 2014.²⁹

Turkish websites lag behind

Turkish Internet users most commonly use western platforms for purposes of social networking, emailing, sharing and watching videos, and blogging. Popular western sites in Turkey include Facebook, MSN, Twitter, YouTube, and Blogspot. However, Turkish websites are more commonly visited for reading news³⁰, shopping online³¹, and visiting portals³².

Digital Divide

Location based digital divide:

The disparity in ICT equipment ownership and access is very high between urban and rural areas in Turkey. In a household ICT access and use survey conducted by the TurkStat in 2010, it was found that while 48.7 per cent of urban dwellers aged 16-74 have access to the Internet, only 24 per cent have access in rural areas³³. Similarly, a gap persists in computer ownership; 40.6 per cent of the urban population owns a desktop computer and 16.6 per cent own a portable computer, as compared to rural ownership rates of 20.4 per cent and 7.6 per cent respectively. Due to lower costs, the gap in mobile phone ownership is not as significant, with 92.8 per cent of urban population owning mobile phones, as compared to 85 per cent for rural populations.³⁴

Use of computers and the Internet is increasing among both rural and urban residents. In five years, the growth of computer and Internet use has more than doubled in rural areas, while it has grown over 30 per cent in urban areas.³⁵ However, there remains a significant usage gap; As of 2010, rates of computer and Internet use among rural residents were 25.6 per cent and 23.7 per cent respectively, as compared to urban rates of 50.6 per cent and 49.2 per cent.³⁶

Gender participation gap:

An examination of the level of ICT usage in Turkey reveals a profound gender participation gap. While 78.5 per cent of males aged 16-24 use a computer, only 52.7 per cent of females in the

²⁸ Republic of Turkey Prime Ministry State Planning Organization, <http://www.bilgitoplumu.gov.tr/Documents/1/Yayinlar/Information_Society_Statistics_2010.pdf> (accessed 24 July 2011).

²⁹ Republic of Turkey Prime Ministry Investment Support and Promotion Agency, <<http://www.invest.gov.tr/en-US/infocenter/publications/Documents/ICT.INDUSTRY.pdf>> (accessed 24 July 2011).

³⁰ Comscore, Press Release, 27 May 2009, <http://www.comscore.com/Press_Events/Press_Releases/2009/5/Turkey_has_Seventh_Largest_Online_Audience_in_Europe> (accessed 16 June 2011). Vatan, Miliyet, Hurriyet.

³¹ Ibid. Gitti-Gidior (eBay equivalent), Sahibinden (Craiglist equivalent).

³² Ibid. Mynet and Ekolay (Yahoo! equivalent).

³³ TurkStat, 'ICT Use in Households', 2010, <<http://www.tuik.gov.tr>> (accessed 28 June 2011).

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.

same age range do so. Likewise, while 76.6 per cent of males aged 16-24 use the Internet, only 49.9 per cent of females aged 16-24 do so.³⁷

In a 2009/10 study by Hacettepe University, Turkey, a sample of 2658 secondary and high school students (9-12), with an age range of 12 to 18 years from public and private schools in Ankara, Gaziantep, Hatay, Istanbul, Malatya and Mersin, were enrolled. It was found that 80.2 per cent of students own mobile phones, 71.4 per cent own computer, 97.9 per cent are internet users, with ICT ownership slightly higher for males than females (~6 per cent higher ownership for males).³⁸ It was also found that the knowledge of using ICTs was much higher for males than females with strong correlation to longer periods of use by males, with higher number of males stating “excellent” skills in using computer and more than three years of experience in using the equipment. The number of females using internet less than one hour a day is higher than males and males using internet more than five hours a day is significantly higher than that of females. It is found that males use computer and internet for longer period of time than females but no difference was found in terms of mobile phone.³⁹

This gender participation gap exists even in circumstances where female adolescents and young people have nominal access to ICTs and the Internet. In a study of 252 female students aged 11-15 conducted by the Middle East Technical University, 17 out of 71 reported that male relatives and parents are not supportive of their use of these resources and monopolize the use of ICTs in the home.⁴⁰ This lack of parental and familial support for female adolescents and young people’s use of ICTs compels them to access the Internet in cafes.⁴¹ Despite this trend, Internet cafes in Turkey remain a primarily male environment, possibly as a consequence of the traditional perception that the coffee house in Turkey is an exclusively male social setting.⁴²

Age participation gap:

Rates of computer and Internet use in Turkey are highest among adolescents and young people, at 65.2 per cent and 62.9 per cent respectively for 16- to-24-year-olds, as compared to 36.9 per cent and 34.7 per cent respectively for 35- to 44-year-olds. For Turks aged 55 and older, less than 11 per cent use computers and only 10 per cent use the Internet.⁴³

Digital literacy growing with education level:

Research reveals that more educated Turks are also more likely to use computers and the Internet. While the rate of computer use among people with some higher education is 90.4 per cent, rates for high school graduates and primary school graduates are 71.8 per cent and 15.3 per cent respectively. In addition, while 89.6 per cent of individuals with some higher education use the Internet, only 14.0 per cent of primary school graduates reported doing so in the three

³⁷ Ibid.

³⁸ Uçanok, Zehra, Durmus, Emine, Karasoy, Durdu, ‘Prevalence of Cyber bullying among Adolescents and Its Importance’, Turkey, 2011.

³⁹ Ibid.

⁴⁰ Inal, Yavuz, Cagiltay, Kursat, ‘Turkish Female Students’ Attitudes toward Internet, Computers and Game Play from the View of Cultural Perspectives’ Middle East Technical University: Ankara, 2006.

⁴¹ Ibid.

⁴² Binark, Mutlu, Bayraktutan Sütcü, Günseli, Buçakçı, Fatma, ‘How Turkish Young People Utilize Internet Cafes: The Results Of Ethnographic Research In Ankara’, *Observatorio (OBS*) Journal* No 8, 2009.

⁴³ TurkStat, ‘ICT Use in Households’, 2010, <<http://www.tuik.gov.tr>> (accessed 28 June 2011).

previous months.⁴⁴ It was also found that frequency of Internet usage is much higher for the high school students using internet more than 3 hours a day than secondary school.⁴⁵

3. OPPORTUNITIES

3.1. Digital access

Turkish young people access the Internet predominantly from their own homes. According to the EU Kids Online study of 1,018 urban and rural Internet users aged 9-16, sampled randomly, 40 per cent reported owning their personal computer or laptop, while 39 per cent shared it with family members. 49 per cent identified home as their primary location of internet access, with 33 per cent reporting using it from their own room. The study also found that most of the children started using internet at age 10.⁴⁶ In a study of 366 children aged 6-13 from four regions of Turkey, East Anatolia, South Anatolia, Marmara and Aegean, 61.9 per cent reported that they had a home Internet connection.⁴⁷

In the same report, Turkish young people also mentioned that they access the Internet from school (29.7 per cent), from friends' homes (37.5 per cent) and from Internet cafes (30.7 per cent).⁴⁸ Only 2.1 per cent of respondents reported accessing the Internet from a library. Males prefer to access the internet in Internet cafes, while females preferred in private settings of their home and relatives' houses.⁴⁹ Similarly in the research of Topcu and Erdur-Baker while females access internet mostly from their homes and less frequently from internet cafes, males access mostly from internet cafes. It is reported that approximately half of females and majority of males go to Internet cafes. The researches explained the prevalence of Internet café among males as gender roles imposed by culture, with males being freer than females.⁵⁰

Mobile Internet trails behind stationary Internet in terms of usage. According to EU Kids Online, only 10 per cent of 9- to 16-year-olds access the Internet from a mobile phone, with a further 3 per cent accessing the Internet from a mobile device other than a phone.⁵¹ Majority of the children (53 per cent) were using internet few times a week, 33 percent used internet everyday

⁴⁴ Ibid.

⁴⁵ Uçanok, Zehra, Burnukara, Pınar, Sertkaya, Durdu, 'A Descriptive Study on Opportunities of Adolescents' Information and Communication Technologies and Cyberbullying' Hacettepe University, Turkey, 2009.

⁴⁶ Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

⁴⁷ Bünyamin Atici, Uğur Bati, 'New Media and Children: Internet Content Preferences of Primary School Children in Turkey'. Firat University, Elazığ; Yeditepe University, Istanbul, 2010.

⁴⁸ Ibid.

⁴⁹ Uçanok, Zehra, Burnukara, Pınar, Sertkaya, Durdu, 'A Descriptive Study on Opportunities of Adolescents' Information and Communication Technologies and Cyberbullying' Hacettepe University, Turkey, 2009.

⁵⁰ Topcu, C., Erdur-Baker, O., & Capa-Aydin, Y. (2008). Examination of cyberbullying experiences among Turkish students from different school types. *CyberPsychology & Behavior*, 11 (6), 643-648.

⁵¹ Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

or almost every day, 11 percent used it few times a month, and 4 per cent used internet less often.⁵²

According to a 2007 study of Topcu and Erdur-Baker, 34.1 per cent of female and 41.1 per cent of male students stated they access internet everyday. 61 per cent of female students, 32.1 per cent male students stated they use SMS everyday.⁵³

3.2. Digital activities

According to EU Kids Online, 92 per cent of the children spent most time online doing schoolwork, 59 per cent spent most time watching music clips, 49 per cent playing games, 48 per cent on social networks, 40 per cent reading or watching news, and 40 per cent downloading music or movies. However, other research pointed to the fact that schoolwork figures were drastically inflated in the responses and in reality social networking and gaming dominated as the online activities.⁵⁴

Mobile Phones

According to Hecettepe University research, adolescents use mobile phones mostly for talking, sending and receiving SMS, listen music, taking photos and playing games. It was found that females use mobile phones for sending receiving SMS, access Internet and play games more than males.⁵⁵

Email

According to one study, 73 per cent of children aged 6-13 have an email account.⁵⁶ Email platforms in Turkey are predominantly western-based. The Microsoft platform, hotmail.com, has a 70 per cent market share, while Google's platform, gmail.com and Yahoo!'s platforms command 12 per cent and 10 per cent of the market respectively. The largest Turkish-based email service is mynet.com, which is used by only 5 per cent of Turkish Internet users.⁵⁷

Social networking sites

In Turkey, the most popular social networking sites (SNS) are all western-based. The only Turkish-based SNS with significant representation in the Turkish digital landscape is Mynet

⁵² Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

⁵³ Topcu, C., Erdur-Baker, O., & Capa-Aydin, Y. (2008). Examination of cyberbullying experiences among Turkish students from different school types. *CyberPsychology & Behavior*, 11 (6), 643-648.

⁵⁴ Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

⁵⁵ Uçanok, Zehra, Burnukara, Pınar, Sertkaya, Durdu, 'A Descriptive Study on Opportunities of Adolescents' Information and Communication Technologies and Cyberbullying' Hacettepe University, Turkey, 2009.

⁵⁶ Bünyamin, Atici, Uğur, Bati, 'New Media and Children: Internet Content Preferences of Primary School Children in Turkey'. Firat University, Elazığ; Yeditepe University: Istanbul, 2010.

⁵⁷ Demirel, Firat, 'Sendloop gives Stats on Email Use in Turkey', *Webrazzi*, 24 February 2011, <<http://en.webrazzi.com/2011/02/24/sendloop-gives-stats-on-email-use-in-turkey/>> (Accessed 8 August 2011).

Eksenim, which lags far behind its western competition in terms of market share.⁵⁸ EU Kids Online report results show that 49 per cent of the children aged 9-16 had at least one social network account and Facebook is overwhelmingly the most popular SNS with 85 per cent of SNS users using Facebook primarily.⁵⁹ Facebook is overwhelmingly the most popular SNS. In a study of 500 Turkish users of SNS aged 9-16, 100 per cent of respondents reported using Facebook.⁶⁰ Other foreign SNS with significant usage rates among Turkish young people are MSN-Live Space (8.6 per cent), Netlog (4.6 per cent) and Myspace (4 per cent). Only 1.7 per cent of respondents claimed they used the Turkish platform Mynet Eksenim.⁶¹

Usage of SNS by Turkish adolescents and young people is quite intensive. 43.1 per cent of users aged 9-16 claim that they use an SNS platform once a day and 23.7 per cent claim they use it more than once a day. Twenty four per cent use an SNS more than once a week, and only 1.2 per cent use an SNS once a week.⁶²

High school adolescents prefer Internet for communication and socializing, and as age increases social networking and instant messaging becomes more important for them than other online activities.⁶³

Online gaming

In one study, 95.2 per cent of 6-13-year-olds reported playing online games, making it the most widely reported online activity among this age group in Turkey, even when compared to communication activities such as email and social networking.⁶⁴ Online gaming is also listed as the primary purpose of Internet use by 49.1 per cent of children aged 6-13, ahead of “communicating with friends” (27 per cent) and “homework/schoolwork” (6 per cent).⁶⁵

A study on the computer gaming habits of 1,224 high school students in eight different schools in six cities in four different regions revealed a sharp gender participation gap in multiplayer games. Of the 873 students who answered questions about their preference for single or multiplayer games, 73.5 per cent of male high school students reported that they preferred multiplayer games compared to only 32.5 per cent of females.⁶⁶

Male and female students also have different access points for computer gaming. Of the 848 high school students who answered the study’s question on where they played online games, female respondents reported they played mostly at home (42.5 per cent) and at school (39 per cent) with only 14.9 per cent reporting that they played in Internet cafes. Males, however,

⁵⁸ Internet Foundation, Middle East Technical University, the Information Technologies and Communications Authority (BTK), ‘Cocukların Sosyal Paylasim Sitelerini Kullanim Aliskanliklari Arastirmasi Raporu [Children’s Habits in Using Social Networking Sites]’, 2011.

⁵⁹ Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² Ibid.

⁶³ Uçanok, Zehra, Burnukara, Pınar, Sertkaya, Durdu, ‘A Descriptive Study on Opportunities of Adolescents’ Information and Communication Technologies and Cyberbullying’ Hacettepe University, Turkey, 2009

⁶⁴ Bünyamin, Atici, Uğur, Bati, ‘New Media and Children: Internet Content Preferences of Primary School Children in Turkey’. Firat University, Elazığ; Yeditepe University: Istanbul, 2010.

⁶⁵ Ibid.

⁶⁶ Karakus, Turkan, Inal, Yavuz, Cagiltay, Kursat, ‘A Descriptive Study of Turkish High School Students’, *Computers in Human Behavior*, 2008.

preferred to play in Internet cafes, with 76.7 per cent of male respondents reporting that they played there, and 62.6 per cent reporting that they played at home. Only 3.9 per cent of male respondents reported that they played games in school.⁶⁷

Male respondents were also more likely to play games with greater frequency as compared to females. Out of the 843 students who responded to a question on frequency of gaming, 24 per cent of males reported that they played 6-10 hours a week, and 14.4 per cent reported that they played for more than ten. For the female respondents, frequency of gaming was far lower, with only 9 per cent reporting that they played for 6-10 hours a week and a mere 1.5 per cent reporting that they played for more than ten hours.⁶⁸

Male and female respondents also had different responses for their preferred kind of games. While the most commonly played genres for male respondents were “car race” (53.9 per cent), “sports” (46.9 per cent), and “first person shooter”, (43.1 per cent), for female respondents, the most commonly played genres were “action adventure” (34.7 per cent), “puzzle games” (27.4 per cent), and “car race” (24.5 per cent).⁶⁹

A qualitative study of 300 patrons in 58 Ankara Internet cafes, carried out from September 2007 to January 2008, revealed that the most popular games played in Internet cafes were *Counter-Strike*, *FIFA*, *Knight Online*, *World of Warcraft: The Burning Crusade*, *Need for Speed*, and *Call of Duty 4: Modern Warfare*.⁷⁰

3.2.1. User generated content: blogging

There is a dearth of detailed, reliable data on blogging in Turkey. The microblogging platform Twitter, however, does enjoy some success in Turkey. Nine per cent of 9- to 16-year-olds who use social networking sites report using Twitter.⁷¹

3.2.2. Turkey e-commerce

The two most popular online shopping websites are GittiGidiyor, a Turkish-based site which is 93 per cent owned by eBay⁷² and Sahibinden, a free Turkish-based classifieds platform.⁷³ Between April 2009 and March 2010, 24.3 per cent of the Turkish population purchased clothes

⁶⁷ Ibid.

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Binark, Mutlu, Bayraktutan Sütcü, Günseli, Buçakçı, Fatma, ‘How Turkish Young People Utilize Internet Cafes: The Results Of Ethnographic Research In Ankara’, *Observatorio (OBS*) Journal No 8*, 2009.

⁷¹ Internet Foundation, Middle East Technical University, the Information Technologies and Communications Authority (BTK), ‘Cocukların Sosyal Paylasim Sitelerini Kullanım Aliskanliklari Arastirmasi Raporu [Children’s Habits in Using Social Networking Sites]’, 2011.

⁷² Rao, Leena, ‘eBay Acquires Turkish Marketplace GittiGidiyor’, *Techcrunch*, <http://techcrunch.com/2011/04/12/ebay-acquires-turkish-marketplace-gittigidiyor/> (accessed 8 August 2011).

⁷³ Comscore, Press Release, 27 May 2009, http://www.comscore.com/Press_Events/Press_Releases/2009/5/Turkey_has_Seventh_Largest_Online_Audience_in_Europe (accessed 16 June 2011).

and/or sporting goods online, 23.8 per cent purchased electronic equipment and 19.3 per cent purchased household goods. There is no evidence as to whether adolescents and young people are purchasing goods online.⁷⁴

4. IDENTIFYING SAFETY RISKS

4.1. The risks

The review of relevant literature revealed that exposure to adult content, malicious software and fraud, sharing of personal information, cyberbullying and meeting of strangers are all safety risks associated with Internet use in Turkey. The literature did not provide hard data with regards to exposure to violent and/or gruesome content, extremist content, grooming and gambling, although this is not to say that these safety issues do not exist in Turkey. It was also found that although 60 percent of the parents perceived their role as helpful in educating their children about the risks on the internet, it was found that about half of the children preferred talking to friends about such topics as their parents didn't understand the issues or didn't share the problem with anyone. In addition, 78 per cent of the children mentioned that they know more about using the internet and the risks online than their parents. However, according to the quiz from EU Kids Online on online safety, the Turkish children scored only 2.6 out of 8, compared to European average of 3.35.⁷⁵

4.1.1. Malicious software and piracy

Turkish Internet users are at a heightened risk of encountering malicious software partly resulting from a high rate of piracy.⁷⁶ According to a Business Software Alliance 2011 report, Turkey had a piracy rate of 62 per cent in 2010, valued at \$516 million.⁷⁷ With a high rate of illicit software use, there is an increased risk of attacks from viruses and other malware.

According to Turkstat, 46.8 per cent of Internet users have experienced security related problems on the Internet in the last 12 months, with 36.4 per cent of users catching a virus or other computer infection, and 32 per cent receiving unsolicited e-mail (spam).⁷⁸

⁷⁴ Republic of Turkey Prime Ministry State Planning Organization, Information Society Statistics of Turkey 2010, June 2010, <http://www.bilgitoplu.gov.tr/Documents/1/Yayinlar/Information_Society_Statistics_2010.pdf> (accessed 5 June 2011).

⁷⁵ Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

⁷⁶ Malicious software (often abbreviated to "malware") is "any software programmes developed for the purpose of doing harm to a computer system or create mischief. The most common are Viruses, Worms, and Spyware." Business Software Alliance, 'Cyber Safety Glossary', <<http://www.bsacybersafety.com/threat/malware.cfm>>).

⁷⁷ Business Software Alliance, 'Eight Annual BSA Global Software 2010 Piracy Study', <http://portal.bsa.org/globalpiracy2010/downloads/study_pdf/2010_BSA_Piracy_Study-Standard.pdf> (Accessed 29 May 2011).

⁷⁸ Republic of Turkey Prime Ministry State Planning Organization, 'Information Society Statistics of Turkey 2010', June 2010, <http://www.bilgitoplu.gov.tr/Documents/1/Yayinlar/Information_Society_Statistics_2010.pdf> (accessed 5 June 2011).

In 2010, the Internet security company AVG named Turkey the country most at risk in the world for malicious software attacks on its 'Global Threat Index', noting that a user in Turkey had a 1 in 10 chance of being attacked on a given day, compared to the global average of 1 in 73.⁷⁹

Eu Kids Online research found that only 46 per cent of the parents had installed antivirus program on their children's computer with only 32 per cent installing website filters.⁸⁰

More research is necessary to know to what extent adolescents and young people are exposed to or affected by malicious software and fraud.

4.1.2. Exposure to images or messages containing sexual content

According to EU Kids Online, 13 per cent of the respondents reported seeing images containing sexual content on the Internet. Of those exposed to such content, 46 per cent reported that they were uncomfortable with the images. In addition, 14 per cent of respondents aged 11-16 have received messages with sexual content, of whom 40 per cent were uncomfortable with the messages. Four per cent of respondents reported having sent sexual content messages⁸¹.

4.1.3. Sharing of personal information

In a study conducted by EU Kids Online of Turkish Internet users aged 9-16, it was found that sharing private information on social network sites was common among adolescents and young people. Forty six per cent of those who use SNS leave their page open to "everyone"; 59 per cent don't know how to change their privacy settings; 65 per cent use a profile photo that shows them clearly; 19 per cent share address information, and 8 per cent share phone numbers on profiles.⁸²

According to a qualitative study jointly conducted by the Internet Foundation, Ankara's Middle East Technical University (ODTU) and the Information Technologies and Communications Authority (BTK) in 2010 with a sample of 524 Facebook users aged 9-16 in three big cities (Istanbul, Ankara, Izmir), 25 per cent reportedly share their home address on SNS, 29 per cent share cell or home phone numbers, and 51 per cent share their family members' names.⁸³ Sharing personal information related to location was less common, with 63.4 per cent never sharing and 33.4 per cent sometimes sharing this information. Only 3 per cent share location information regularly. Interestingly, as the income level decreases, the rate of children sharing information about their location decreases as well.⁸⁴

⁷⁹ AVG, 'New AVG Research Shows Turkey and Russia as Most Risky Places to Surf the Net, Sierra Leone and Japan Among Safest', <<http://www.avg.com/ww-en/press-releases-news.ndi-232210>> 26 August 2010 (Accessed 24 July 2011).

⁸⁰ Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

⁸¹ Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

⁸² Ibid.

⁸³ Internet Foundation, Middle East Technical University, the Information Technologies and Communications Authority (BTK), 'Cocukların Sosyal Paylaşım Sitelerini Kullanım Alışkanlıkları Arastırması Raporu [Children's Habits in Using Social Networking Sites]', 2011.

⁸⁴ Ibid.

In the same study, 44.3 per cent of respondents reported feeling safe in sharing information on Facebook, as compared to 39.7 per cent who did not feel safe. An overwhelming majority (93 per cent) of the respondents said that they did not regret sharing information on SNS.⁸⁵

The study also indicated that there is low digital literacy when it comes to protecting private information online on social network sites like Facebook, with almost half the respondents (47 per cent) saying they either did not read or did not understand the directives relating to privacy and protection of personal information when subscribing. According to the results, females know how to protect their privacy better than males⁸⁶.

4.1.4. Cyberbullying

According to Article 19 of the Convention on the Rights of the child, all children have the right to be protected from all forms of violence while in the care of parents or other caregivers. General Comment No. 13, of the Committee on the Rights of the Child explains some of the risks that children face through ICTs, one of them being cyberbullying: "As children in contact with others through ICT, children may be bullied, harassed or stalked (child "luring") and/or coerced, tricked or persuaded into meeting strangers off-line, being "groomed" for involvement in sexual activities and/or providing personal information."⁸⁷

Although bullying existed well before the creation of the Internet, it is magnified online. Cyberbullying is defined by the Berkman Center at Harvard Law School as the "willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices".⁸⁸ Nevertheless, different studies tend to use different definitions and criteria when carrying out research into the phenomenon, which can yield to inconsistent results.

In the EU Kids Online's study of Turkish Internet users aged 9-16, participants were prompted about cyberbullying in the following manner: "sometimes children or teenagers say or do hurtful or nasty things to someone and this can often be quite a few times on different days over a period of time, for example. This can include: teasing someone in a way this person does not like; hitting, kicking or pushing someone around; leaving someone out of things."⁸⁹ When asked if someone had behaved in such a manner to them in the previous 12 months on the Internet, only 3 per cent reported in the affirmative, compared to the EU average of 6 per cent.⁹⁰

In a 2009/10 study by Hacettepe University, Turkey, a sample of 2,658 secondary and high school students (9-12), from public and private schools in Ankara, Gaziantep, Hatay, Istanbul, Malatya and Mersin, it was found that 5.8 per cent cyberbullied others, 10 per cent were cyberbully victims, and 5.9 per cent were both perpetrators and victims. This showed the prevalence of the problem across wide age range with 21.7 per cent involved in cyberbullying in

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Committee on the Rights of the Child CRC/C/GC/13, Fifty-sixth session, Geneva, 17 January - 4 February 2011

⁸⁸ Shrock, Andrew, boyd, danah, *Online Threats to Youth: Solicitation, Harassment, and Problematic Content*, Harvard University: Cambridge, 2008

<http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/RAB_Lit_Review_121808_0.pdf> (accessed 10 August 2011).

⁸⁹ Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

⁹⁰ Ibid.

some way. The study also pointed to the problem being prevalent both inside and outside of school, with majority being cyberbullied in both circumstances. It was also found that as age of subject decreases, their level of being subjected to cyberbullying increases (18 per cent sixth graders cyberbullied compared to seven per cent tenth graders cyberbullied). It is found to be inverse relationship for cyberbully perpetrators; as age increases, so does the frequency of cyberbullying others (6 per cent sixth graders cyberbullying others compared to 28 per cent tenth graders cyberbullying perpetrators).⁹¹

A Web-based survey carried out by Anadolu University of 1,470 Internet users (66 per cent were males) with a mean age of 23 and standard deviation of 6, found higher instances of what could be termed cyberbullying. Fifty six per cent of all participants reported experiencing at least one form of “victimization” online. These forms of victimization included “receiving threatening email and instant messages” (27 per cent), “being mocked because of physical appearance” (37 per cent), and “cursing in instant messaging programmes” (56 per cent). The study found that the average victimization rates among males was higher than that among females. Interestingly, females experienced significantly higher rates of victimization when they accessed the Internet at school or in Internet cafes than when they accessed the Internet at home. The study also found that participants who used the Internet at night had higher instances of victimization than those who used it predominantly during the afternoon and evening, and that those who utilized primarily foreign websites had significantly more problems than those who utilized a combination of foreign and Turkish websites or primarily Turkish websites.⁹² The 2007 study of 228 14- to 19- year-olds, monitored by Erdur-Baker and Kavut, revealed similar findings, male students reported to be bullies and victims on the internet more than females.⁹³

Similar to the Erdur-Baker and Kavut study findings, Aricak’s study on 269 Turkish secondary school students revealed 5.9 percent to be cyberbullying victims. Findings also indicated that boys were more likely to be both victims and bullies than girls confirming the findings of the Erdur-Baker and Kavut study.⁹⁴ It was found that girls prefer seeking social support and talking to others about the incident, while boys prefer fighting back or ignoring in order to cope with cyberbullying.⁹⁵

Bullying and victimization instances were found to be correlated with the frequency usage of several ICTs including Internet, MSN, SMS, cellular phone, forum sites and chat rooms. It was found that communication via these tools provided advantage in hiding identity and choosing victims easily, with effective medium for spreading threatening messages to many people.⁹⁶ In the research of Topcu, Erdur-Baker and Capa-Aydin although private school students use

⁹¹ Uçanok , Zehra, Durmus, Emine, Karasoy, Durdu, ‘Prevalence of Cyber bullying among Adolescents and Its Importance’, Turkey, 2011.

⁹² Akbulut, Yavuz, Levent, Yusuf Sahin, Eristi, Bahadir, ‘Cyberbullying Victimization among Turkish Online Social Utility Members’, *Educational Technology & Society*, 13 (4), 2010.

⁹³ Erdur-Baker, O., & Kavut, F. (2007). Cyber bullying: a new face of peer bullying. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 27, 31-42.

⁹⁴ Aricak, T., Siyahhan, S., Uzunhasanoglu, A., Saribeyoglu, S., Ciplak, S., Yilmaz, N., & Memmedov, C. (2008). Cyberbullying among Turkish Adolescents. *Cyberpsychology & Behavior*, 11 (3), 253-261.

⁹⁵ Uçanok , Zehra, Durmus, Emine, Karasoy, Durdu, ‘Prevalence of Cyber bullying among Adolescents and Its Importance’, Turkey, 2011.

⁹⁶ Erdur-Baker, O., & Kavut, F. (2007). Cyber bullying: a new face of peer bullying. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 27, 31-42.

internet more frequently than public school students, adolescents going to public schools stated they were cyberbullied more than private school students.⁹⁷

In a 2009 study of 695 undergraduate university students aged 18-22 from 15 different programmes at the Faculty of Education at Selçuk University, 'cyberbullying' was explained to participants using the definition given by the Canadian academic, Bill Belsey: "Cyberbullying is the use of information and communication technologies to support deliberate, repeated, and hostile behaviour by an individual or group that is intended to harm others."⁹⁸ The participants were then provided a list of examples of such behaviour before being given a survey to complete. All students were active users of the Internet. 19.7 per cent of participants reported that they had engaged in cyberbullying on at least one occasion and 54.4 per cent of participants reported being victims of cyberbullying at least once in their lifetime.⁹⁹ The study found that males were significantly more likely to engage in cyberbullying than females, but that there was no significant gender gap in terms of victimization.¹⁰⁰

4.1.5. Talking to and meeting strangers

According to a qualitative study jointly conducted by the Internet Foundation, Ankara's Middle East Technical University (ODTU) and the Information Technologies and Communications Authority (BTK) in 2010 with a sample of 524 Facebook users aged 9-16 in three big cities (Istanbul, Ankara, Izmir), half of the child participants noted that they accepted friendship requests of only those people whom they knew, 33 per cent said they only accepted the requests of their friends and their friends' friends and 15 per cent said they accepted all friendship invitations. The research also showed that boys accepted the friendship requests of strangers more often than girls, and that high school students tended to more frequently accept requests from all people, irrespective of whether they knew them or not, as compared to middle school students.¹⁰¹

When asked what they would do when they get a message from a stranger on SNS, 44.8 per cent said they never reply back, while 30.3 per cent say that they reply if the message is appropriate. It is not clear from the study what type of message is deemed appropriate by the respondents. Nine per cent of the respondents always reply back to messages from a stranger, with males more likely to reply back than females. Older respondents were also more likely to reply to strangers' messages.¹⁰²

According to the EU Kids Online's study of Turkish Internet users aged 9-16, 18 per cent of the respondents talk to strangers on the Internet and 3 per cent met those strangers face-to-face.

⁹⁷ Topcu, C., Erdur-Baker, O., & Capa-Aydin, Y. (2008). Examination of cyberbullying experiences among Turkish students from different school types. *CyberPsychology & Behavior*, 11 (6), 643-648.

⁹⁸ Belsey, B., *Cyberbullying*, <<http://www.cyberbullying.org/>>, (accessed August 5 2011).

⁹⁹ Arıcak, O. T., 'Psychiatric Symptomatology as a Predictor of Cyberbullying Among University Students'. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 34, 2009.

¹⁰⁰ Ibid.

¹⁰¹ Internet Foundation, Middle East Technical University, the Information Technologies and Communications Authority (BTK), 'Cocukların Sosyal Paylaşım Sitelerini Kullanım Alışkanlıkları Arastırması Raporu [Children's Habits in Using Social Networking Sites]', 2011.

¹⁰² Ibid.

These figures are lower than the general European averages, where 30 per cent talked to strangers, and 9 per cent met them offline.¹⁰³

5. ICT INITIATIVES IN TURKEY

Both the public and private sectors have actively invested in ICT development, particularly in the sphere of education. Sometimes these ICT initiatives employ a public private partnership such as Intel's eLearning Initiatives and the Youth Association for Habitat projects. All these projects utilize the expertise and resources of the private sector to encourage ICT literacy among Turkish adolescents and young people.

In Intel's first project, the '1:1 eLearning Project', the e-Government Research and Development Center (EDMER) of Turkey's Middle East Technical University collaborated with Intel to train fourth and fifth grade students at a public primary school in Ankara in the use of computers and Internet by teachers who received training through the 'Intel Teach Program'. Altogether, the project encompassed 1,165 students and 26 teachers in 18 fourth and fifth grade classrooms. All computer equipment was donated by Intel for the project.¹⁰⁴ Intel also started the 'Intel Learn Program' in collaboration with the Ministry of National Education, Bilge Adam (one of the country's leading independent technology training organizations), and VERI TR, (a university-based evaluation organization). The programme was implemented after hours in community technology centres, often in schools with computer labs, enabling youth aged 8-16 to learn digital literacy, problem solving, critical thinking, and collaboration skills. More than 200 educators have been trained in 100 computer-training centres in Turkey. Approximately 2,500 Turkish students have participated in the programme.¹⁰⁵

The Youth Association for Habitat, in partnership with the Ayhan Şayenk Association, Microsoft-Turkey, Turkish State Railways, and the Ministry of Education, began a project in 2004 in which 6,000 used computers were refurbished and distributed as grants to institutions for the benefit of young people. 1,125 local computer laboratories in 60 cities were established at elementary and secondary schools as well as at the local youth councils through this project.¹⁰⁶

In partnership with United Nations Development Programme and Microsoft, the association also took part in capacity development and ICT skills building, under the project 'Empowerment of Youth for e-transformation of Turkey'. Started in 2005, the project is currently in progress, aiming to provide 100,000 young people aged 15-25 with ICT skills. Fifty two per cent of the trainees have been males while 48 per cent of the trainees are females.¹⁰⁷

One of the largest ICT initiatives is the FATİH project. To be implemented in 2011-2012, "Movement of Enhancing Opportunities and Improving Technology", abbreviated as FATİH, is a national ICT project funded by the Ministry of National Education and Ministry of Transportation,

¹⁰³ Livingstone, S, Haddon, L, Görzig, A, and Ólafsson, K, *Risks and Safety on the Internet: The Perspective of European Children. Full Findings*, LSE, London: EU Kids Online, 2011.

¹⁰⁴ Intel, 'Transforming Education with 1:1 eLearning in Turkey', 2005, The Intel® Learn Program, 2005, <<http://www.intel.com/about/corporateresponsibility/education/programs/learn/index.htm>> (accessed 11 August 2011).

¹⁰⁵ Ibid.

¹⁰⁶ Youth for Habitat, <<http://www.habitaticingenclik.org.tr/en/Page.asp?id=72>> (accessed 11 August 2011).

¹⁰⁷ Ibid.

equipping 40,000 schools and nearly 600,000 classes with the latest information technologies. The project aims at creating an Internet infrastructure by donating laptops and projectors to 570,000 classes in elementary and secondary schools, and multi-purpose copier machines to every school. Training on the use of the provided equipment will be provided to the teachers of these schools via face-to-face and distance training methods. The traditional school curriculum will be synched with the e-contents and e-books for each course.¹⁰⁸

Other distance learning projects in Turkey include a free language training programme to be offered to all university students over the Internet free of charge¹⁰⁹, and the 'Open Education Program', funded and managed by Anadolu University, which will allow students to complete studies for Associate and Bachelor degrees over the Internet. The aim is to provide greater learning opportunities for economically disadvantaged students and for those living far away from campus. Currently the programme has students enrolled in 35 different bachelors and associate degree programmes.¹¹⁰

The multitude of initiatives demonstrates the strong will of the Turkish government and private sector to make ICTs accessible to the population.

6. INTERNET CONTROL IN TURKEY

In response to ostensibly pervasive Internet safety risks, the Turkish government has taken an active role in monitoring and blocking content on the web. However, these efforts to protect citizens from harmful content have come under intense scrutiny from academics, lawyers, and civil society, who allege that the government is illegally censoring the web and infringing upon the freedom of expression and right to access information.

The right to freedom of expression is protected under Article 26 of the Turkish constitution. The Turkish government is also a signatory to the CRC, a legally binding document, which grants the rights of access to information as well as freedom of expression (Article 13) to all children. Turkey is additionally party to the European Convention on Human Rights (ECHR), Article 10-2 of which guarantees freedom of expression, "applicable not only to information or ideas that are favourably received or regarded as inoffensive [...] but also to those that offend, shock or disturb the state or any sector of the population."¹¹¹

In line with the fact that freedom of expression is not an absolute right¹¹², the government has passed myriad laws and regulations prohibiting the creation and/or dissemination of certain types of information. Law No. 5816, passed in 1951, outlaws crimes against Atatürk, including public insults and the desecration of tombs or statues. The Penal Code of 2005 criminalizes insults to the President and government and military security forces (Articles 299 and 301), as

¹⁰⁸ Telekom Dunyasi, 'Intelligent Class Support for Education', 12 June 2010.

<http://www.telekomdunyasi.com/en/?action=haber_detay&id=54> (accessed 11 August 2011).

¹⁰⁹ Ibid.

¹¹⁰ Anadolu Univeristy, Open Education System, <http://www.anadolu.edu.tr/en/aos/aos_tanitim/aos.aspx> (accessed 11 August 2011).

¹¹¹ European Convention on Human Rights, Rome, 1950.

¹¹² Ibid.

well as “praising crime and criminals,” “incitement to hatred and animosity” and “incitement of the people to disobedience with the law” (Articles 215-217)¹¹³.

The Turkish government began blocking websites in 2000, in response to web content that accused the government and army of corruption, included “anti-Turkish sentiments”, and “terrorist propaganda”.¹¹⁴ Then, in 2007, a video appeared on YouTube, which defamed Mustafa Kemal Atatürk and denigrated the Turkish flag.¹¹⁵ The video was judged to be illegal under Law No. 5816, and the Turkish court subsequently blocked access to the entire YouTube website.¹¹⁶ In response to this case, as well as to the growing concern over the presence of child abuse images, sites about drugs, and other harmful content on the Internet, the Turkish parliament passed Law 5651, ‘Regulation of Publications on the Internet and Suppression of Crimes Committed by means of Such Publication,’ in May 2007. The law was justified as a measure to protect families and young people; specific justification cited Article 41 of the Turkish Constitution, which posits that “the state shall take the necessary measures and establish the necessary organization to ensure the peace and welfare of the family, especially where the protection of the mother and children is involved.”

Under Article 8 of Law 5651, access to websites may be blocked if there exists “sufficient suspicion” that the sites include the following illegal content: (i) encouragement of and incitement to suicide, (ii) sexual exploitation and abuse of children, (iii) facilitation of the use of drugs, (iv) provision of substances dangerous to health, (v) obscenity, (vi) gambling, (vii) crimes committed against Atatürk, and (viii) sports betting services. The Law does not define what constitutes “sufficient suspicion”.¹¹⁷

Article 9 of Law 5651 allows for individuals who feel that their rights have been violated through Internet content to request that the offending content be removed. In these instances, entire websites may not be blocked.

Law 5651 allows for blocking orders only with regards to the crimes listed under Article 8. Other crimes, including Anti-Terror Law No. 3713 and the crime of “denigrating Turkishness” under Article 301 of the Penal Code are not included in Law 5651, and thus may not legally be used as justification for blocking orders.¹¹⁸

Blocking orders under Law 5651 may be issued either by the Turkish court, or through administrative orders of the TIB, the body in charge of Internet monitoring.¹¹⁹ To trace content in violation with Article 8 of Law 5651, the TIB established a public hotline. As of 2009, 81,691 calls had been made to the hotline, 34,294 of which were deemed “actionable under Article 8.” As a result, 21,735 domains were charged with containing illegal content as of 2009, 61.2 per cent of which contained obscenity, 14.1 per cent sexual exploitation of children, 8.6 per cent crimes against Atatürk, and 8.3 per cent prostitution.¹²⁰ It is important to note that Law 5651

¹¹³ European Commission, Seventh Framework Program, ‘Media policies and regulatory practices in a selected set of European countries, the EU and the Council of Europe’, 2010.

¹¹⁴ Akdeniz, Yaman, Organization for Security and Co-operation in Europe (OSCE), *Report of the OSCE Representative on Freedom of the Media on Turkey and Internet Censorship*, 2010.

¹¹⁵ Ibid.

¹¹⁶ Ibid.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

¹¹⁹ Ibid.

¹²⁰ Ibid.

does not require that the content providers be informed when their sites are being blocked, nor why the blocking order has been issued in the first place.¹²¹

Between the law's establishment in May 2007 and May 2009, a total of 2,601 websites were blocked under Law 5651, including Google, YouTube and Geocities. The TIB has not published blocking statistics since May 2009, limiting more recent totals to speculation; one researcher estimates that based on figures from May 2008-2009, 3,700 websites had been blocked by the end of 2009,¹²² while Freedom House estimates that 5,000 sites had been blocked by July 2010.¹²³

Websites that have been blocked under Law 5651 include Kurdish nationalist and leftist news sites,¹²⁴ the two largest websites for the gay community in Turkey, and the website of the Kurdistan Workers' Party (PKK).¹²⁵ Evolutionary biologist Richard Dawkins also had his website blocked after a creationist Islamist stated that the site insulted him and his religion.¹²⁶ YouTube was blocked 20 times from the initial incident with the video insulting Atatürk in 2007¹²⁷, until November 2010.¹²⁸ Access to the site was restored once all offending videos were blocked in Turkey.¹²⁹ Myspace.com and last.fm were also blocked entirely due to alleged intellectual property infringement.¹³⁰

Of those 2,601 websites blocked by May 2009, 18 per cent were blocked by court orders, while 82 per cent were blocked by TIB's administrative orders.¹³¹ Of those sites blocked through TIB administrative orders, about 50 per cent were due to sexual exploitation and abuse of children, followed by obscenity (40 per cent), sports betting (5.5 per cent), gambling (3.5 per cent), prostitution, drugs, crimes against Atatürk and encouragement of suicide (all less than 1 per cent).¹³² In addition, by May 2009, approximately 197 websites had been blocked for reasons outside of Article 8 by issue of court order. The TIB has not provided any details as to the reasoning.¹³³

In July 2010, approximately 2,000 people gathered in Istanbul against Internet control, and in support of the repeal of Law 5651.¹³⁴

¹²¹ Ibid.

¹²² Ibid.

¹²³ Freedom House, 'Freedom on the Net 2011: Turkey', 2011, <www.freedomhouse.org/images/File/FotN/Turkey2011.pdf> (accessed 8 August 2011).

¹²⁴ Ibid.

¹²⁵ Open Net Initiative (ONI), 'Turkey', 2010, <<http://opennet.net/countries/turkey>> (accessed 12 August 2011).

¹²⁶ Freedom House, 'Freedom on the Net 2011: Turkey', 2011, <www.freedomhouse.org/images/File/FotN/Turkey2011.pdf> (accessed 8 August 2011).

¹²⁷ Interestingly, even during this ban, YouTube remained the "8th most accessed site in Turkey", pointing to the ease of circumventing the block. (Freedom House, 'Freedom on the Net 2011: Turkey', 2011.)

¹²⁸ Freedom House, 'Freedom on the Net 2011: Turkey', 2011, <www.freedomhouse.org/images/File/FotN/Turkey2011.pdf> (accessed 8 August 2011).

¹²⁹ Ibid.

¹³⁰ Akdeniz, Yaman, Organization for Security and Co-operation in Europe (OSCE), *Report of the OSCE Representative on Freedom of the Media on Turkey and Internet Censorship*, 2010.

¹³¹ Ibid.

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Freedom House, 'Freedom on the Net 2011: Turkey', 2011, <www.freedomhouse.org/images/File/FotN/Turkey2011.pdf> (accessed 8 August 2011).

Analysis of Law 5651

While Law 5651 is purported to protect Turkish families and youth from harmful content, many¹³⁵ allege that it oversteps its own bounds, and is at odds with the ECHR, the CRC, and the Turkish Constitution itself.

First, as mentioned above, 197 blocking orders were issued for reasons outside of Law 5651. Many Kurdish nationalist websites, for example, were blocked without explanation, most likely due to Anti-Terror Law No. 3713, and the “dissemination of terrorist propaganda”.¹³⁶ But without official reports, it is hard to determine if a crime was actually committed, or if the orders were rather issued with political motivations, to silence political dissidents. Either way, it is not within the bounds of Law 5651 to block websites for reasons other than those listed in Article 8.

Unjustified blocking of political dissidents’ websites is in direct violation of ECHR Article 10, which prohibits censoring content on the Internet “if blocking measures or filtering tools are used at state level to silence politically motivated speech on the Internet, or the criteria for blocking or filtering is secret, or the decisions of the administrative bodies are not publicly made available for legal challenge.”¹³⁷ In addition to potentially violating ECHR on the basis of censoring politically motivated speech, the courts do not publish or reveal the reasoning behind blocking orders of Law 5651, in direct violation of Article 10.

The ECHR, under Article 10-2, also states that while the freedom of expression is not absolute, any interference with that freedom must be “(1) proscribed by law, (2) the aim of the limitation has to be legitimate and (3) the limitation has to be necessary in a democratic society.” Holding Law 5651 up to this three part litmus test reveals that while parts (1) and (2) are fulfilled--5651 is a Law, and the aim is to protect Turkish people from harmful content on the Internet--its fulfillment of part (3) is ambiguous at best. The OSCE and the Open Net Initiative have argued that blocking entire websites rather than removing offensive content is a disproportionate and unnecessary response. Indeed, the DNS blocking/tampering and IP address blocking methods which are used to execute court and TIB orders result in entire domains (including YouTube, Myspace, and Blogger) being blocked, rather than the specific page, video, blog post, or file that contained the offensive content.¹³⁸ As a result, Turkish Internet users are unable to access any and all of the legal content hosted on the thousands of blocked sites. This arguably constitutes a violation of the right to access information as protected by ECHR Article 10.¹³⁹

Similarly, the disproportionate blocking measures of Law 5651 are not in line with the CRC, which protects the freedom of expression including the freedom to “seek, receive and impart information and ideas of all kinds” (Article 13). While this freedom is subject to certain “necessary” restrictions, including those “for respect of the rights or reputations of others” or “for the protection of national security or of public order,” the extent of Law 5651’s application does not seem to fit within these bounds. As such, Law 5651 may be compromising the rights of Turkish youth.

¹³⁵ Includes OSCE, Freedom House and Open Net Initiative.

¹³⁶ Akdeniz, Yaman, Organization for Security and Co-operation in Europe (OSCE), *Report of the OSCE Representative on Freedom of the Media on Turkey and Internet Censorship*, 2010.

¹³⁷ European Convention on Human Rights, Rome, 1950.

¹³⁸ Akdeniz, Yaman, Organization for Security and Co-operation in Europe (OSCE), *Report of the OSCE Representative on Freedom of the Media on Turkey and Internet Censorship*, 2010.

¹³⁹ Ibid.

Law 5651 may also be in violation of several Articles of the Turkish Constitution. Article 22(3), for example, states that any interference with freedom of communication can only be granted by a judge, whereas under Law 5651, the TIB has issued thousands of administrative blocking orders, circumventing the courts. As such, TIB's authority can be considered unconstitutional. On this point, the All Internet Association and the Turkish Informatics Association attempted to annul Law 5651, but were unable to do so since the Turkish constitution does not allow for constitutional complaint.¹⁴⁰

Article 141(3) of the Constitution states, "the decisions of all courts shall be made in writing with a statement of justification". Since no provision is made under Law 5651 to inform content providers of the blocking orders and the charges made against them, the Law may also be deemed unconstitutional in this regard.¹⁴¹

Thus, while Law 5651 may have been passed with the intention to protect Turkish citizens from harmful content on the Internet, it may in fact be in violation of the freedom of expression and the right to access information, at odds with the ECHR, the CRC, and the Turkish constitution itself.

Filtering Regulation of 2011

The Turkish government has enacted a bylaw¹⁴² which requires service providers to offer two filtering profiles for consumers to choose between for both broadband and mobile internet services. It should be noted that "Safe Internet Service" is optional and therefore only applicable for subscribers who request it from their ISP.¹⁴³

Under the first option of 'family' profile, internet users are not able to access the domain names sub-domain names, IP addresses, ports and web proxy sites in the list which is sent to the operators by the Regulation Authority.¹⁴⁴ It is not yet clear what this list consists of or who decides the composition of the websites to be inserted in this list.

As a second option, Internet users will also have the option of choosing 'child' filtering profile. This option being the most restrictive, allows users to only access websites which are on the list of approved sites sent to the operators by the Regulation Authority. Users cannot access any sites outside the list.¹⁴⁵

Critics of the filtering plan claim that this regulation, a central filtering programme imposed by the state, constitutes censorship. They argue that a state-imposed filter is unnecessary, as parents could otherwise have the option of installing filtering software onto computers if they wished to keep their children off certain websites. The Turkish Alternative Information Technologies Association claims that the only way to ensure safe Internet use is through digital literacy education, such that users become aware of the threats of personal information theft, spam, meeting strangers, etc. Without such education, and even in the presence of filters,

¹⁴⁰ Ibid

¹⁴¹ Ibid.

¹⁴² Bylaw 27655 on the Principles and Procedures Concerning the Safe Internet Service, published in the Official Gazette 28 July 2010, enacted August 4 2011.

¹⁴³ Bilgi Teknolojileri ve İletişim Kurumu, 'Güvenli İnternet Hizmetine İlişkin Usul ve Esaslar', 2011, <http://www.btk.gov.tr/mevzuat/kurul_kararlari/dosyalar/2011%20DK-14%20410.pdf> (accessed 26 October 2011).

¹⁴⁴ Ibid.

¹⁴⁵ Ibid.

Internet users most likely remain susceptible to online risks. In May 2011, thousands of Turks in over thirty cities attended protests against the proposed filtering system, which they claim to be an infringement on personal freedoms.

7. LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH.

The primary limitation of this study lies in the scarcity of literature available on the digital behaviour and risks faced by adolescents and young people in Turkey. There was a dearth of information available on activities like blogging. Literature that existed occasionally illuminated the behaviour or risks of a subset of Turkish adolescents and young people, rather than the group as a whole. This complicated a thorough cross-referencing of data.

This exploratory study has identified several areas for which further research is needed. These areas include:

- The extent and nature of the use of ICTs by adolescents and young people in rural settings
- Safety risks faced by adolescents and young people, notably exposure to violent or gruesome content, exposure to extremist content as well as suggestive/explicit self-exposure
- The level of awareness of Turkish adolescents and young people of the risks they are facing on the Internet
- User generated content, including blogging
- The types of content Turkish users download and upload on the Internet

8. CONCLUSION.

Access to the Internet in Turkey affords a myriad of new opportunities for Turkish adolescents and young people to enter into the digital age. Still, lower rates of computer and Internet usage as compared to other European countries, and persistent gender and location-based digital divides means that the Turkish government must continue to pursue and create initiatives to optimize access to ICT among its citizens. As recent efforts by the Turkish government to protect citizens from online risks have drawn criticism from civil society, the challenge in the coming years will be to encourage a safe expansion of ICT opportunities to all sectors of the population, without infringing on personal freedoms.

GLOSSARY

Access: The right, opportunity, and/or means of finding, using or retrieving information. (Source: International Standard ISO/TR15489-1, Clause 3.1).

Adolescent: Males and females aged 10-19 years. (Source: United Nations Children's Fund (UNICEF), 'The State of the World's Children 2011', <http://www.unicef.org/sowc2011/pdfs/SOWC-2011-Main-Report_EN_02092011.pdf>).

Blog: A Web site that contains dated text entries in reverse chronological order about a topic. Blogs serve many purposes from personal journals to online newsletters. Written by one person or a group of contributors, entries may contain commentary, observations and opinions as well as images, audio, video, and links to other sites. (Source: PC Magazine, <http://www.pcmag.com/encyclopedia_term/0,2542,t=blog&i=38771,00.asp>).

Broadband: A transmission capacity with sufficient bandwidth to permit combined provision of voice, data and video, with no lower limit. Broadband is implemented mainly through ADSL, cable modem or wireless LAN (WLAN) services. (Source: ITU, <http://www.itu.int/wsis/tunis/newsroom/stats/The_Portable_Internet_2004.pdf>).

Child pornography: Child pornography means any representation, by whatever means, of a child engaged in real or simulated explicit sexual activities or any representation of the sexual parts of a child for primarily sexual purposes. However, since the World Congress III against Sexual Exploitation of Children and Adolescents in 2008, there is a growing consensus that the terminology child pornography does not adequately capture the exploitation that children suffer in these situations. Rather the term child abuse images makes more explicit the abuse and exploitation that is taking place. The terminology used in this document to refer to 'child pornography' is therefore child abuse images. However, there is no internationally agreed definition of child abuse images (Source: Article 2 of the Optional Protocol to the CRC on the sale of children, child prostitution and child pornography (OPSC)).

Cyberbullying: Willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices (Source: Center for International Development at Harvard University, Information Technologies Group, <http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/RAB_Lit_Review_121808_0.pdf>).

Cyber cafe / Internet cafe: Public establishments offering access to Internet-enabled terminals in addition to other services, such as food and drink. Also known as an 'Internet Cafe'. (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/readinessguide/glossary.htm>>).

Digital Behaviour: The way in which an individual behaves and interacts with other users online and in groups.

Digital Divide: The gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to their opportunities to access information and communications technologies (ICTs) as well as to use the Internet. (Source: Patricia, J.P, (2003) 'E-government, E-Asean Task force, UNDP-APDIP', <<http://www.apdip.net/publications/iespprimers/eprimer-egov.pdf>>).

E-commerce: The conduct of transactions by electronic means. (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/olds/ecommerce/introduction.html>>).

Email (electronic mail): A computer-based form of sending and receiving messages via the Internet. Users may have their own e-mail account or use a shared account. (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/readinessguide/glossary.html>>).

Grooming: "As children in contact with others through ICT, children may be bullied, harassed or stalked (child "luring") and/or coerced, tricked or persuaded into meeting strangers off-line, being "groomed" for involvement in sexual activities and/or providing personal information." <Committee on the Rights of the Child CRC/C/GC/13, Fifty-sixth session, Geneva, 17 January - 4 February 2011>

Information and communication technologies (ICTs): The building blocks of the Networked World. ICTs include telecommunications technologies, such as telephony, cable, satellite and radio, as well as digital technologies, such as computers, information networks and software. (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/readinessguide/glossary.html>>).

Information Technologies and Communications Authority (BTK): In Turkish- *Bilgi ve İletişim Teknolojileri Kurumu (BTK)*, (formerly known as Telecommunications Authority or in Turkish *Telekomünikasyon Kurumu (TK)*), is a Turkish national telecommunications regulatory authority. (Source: Bilgi ve İletişim Teknolojileri Kurumu, <http://www.btk.gov.tr/kurum_hakkinda/kurulus/index.php>).

Internet: A linked global network of computers in which users at one computer can get information from other computers in the network. (Source: International Telecommunication Union, <http://www.itu.int/wsis/tunis/newsroom/stats/The_Portable_Internet_2004.pdf>).

Internet-service providers (ISPs): ISPs provide end-users, and other ISPs, access to the Internet. ISPs may also offer their own proprietary content and access to online services such as e-mail. (Source: ITU (2009), Glossary, Acronyms and Abbreviations, <http://www.itu.int/ITU-D/ict/publications/wtdr_99/material/glossary.html>).

Internet users: Subscribers who pay for Internet access (dial-up, leased line, and fixed broadband) and people who access to the worldwide computer network without paying directly, either as the member of a household, or from work or school. The number of Internet users will always be much larger than the number of subscribers, typically by a factor of 2–3 in developed countries, and more in developing countries. (Source: International Telecommunication Union, <<http://www.itu.int/ITU-D/ict>>).

ITU: International Telecommunication Union. The United Nations specialized agency for Telecommunications, <<http://www.itu.int/>>.

Justice and Development Party (AKP): The Justice and Development Party, Adalet ve Kalkınma Partisi in Turkish, is a centre-right political party in Turkey. The party is the largest in Turkey, with 327 members of parliament. Its leader, Recep Tayyip Erdoğan, is Prime Minister, while fellow former party member and PM Abdullah Gül is President. (Source: AK Parti, <<http://eng.akparti.org.tr/english/index.html>>).

Law No. 5651 “Regulation of Publications on the Internet and Suppression of Crimes Committed by Means of Such Publication”: The Turkish government enacted Law No. 5651, entitled Regulation of Publications on the Internet and Suppression of Crimes Committed by means of Such Publication, on 4 May 2007. The enactment of this law followed concerns about defamatory videos available on YouTube involving the founder of the Turkish Republic Mustafa Kemal Atatürk, combined with increasing concerns for the availability of child pornographic, and obscene content on the Internet, and websites which provide information about suicide, or about illegal substances deemed harmful or inappropriate for children. The law, originally published on the Turkish Official Gazette on 23.05.2007, No. 26030), proscribes the responsibilities of content providers, hosting companies, mass-use providers, and ISPs. It allows the blocking of websites that contain certain types of content, including material that shows or promotes sexual exploitation and abuse of children, obscenity, prostitution, or gambling, and any websites deemed insulting to Mustafa Kemal Atatürk.

Article 8(1)(a)(1): encouragement and incitement of suicide (article 84 of the Turkish Penal Code); article 8(1)(a)(2): sexual exploitation and abuse of children (article 103(1) of the Turkish Penal Code); article 8(1)(a)(3): facilitation of the use of drugs (article 190 of the Turkish Penal Code); article 8(1)(a)(4): provision of dangerous substances for health (article 194 of the Turkish Penal Code); article 8(1)(a)(5): obscenity (article 226 of the Turkish Penal Code); article 8(1)(a)(6): prostitution (article 227 of the Turkish Penal Code); article 8(1)(a)(7): gambling (article 228 of the Turkish Penal Code); article 8(1)(b): crimes committed against Atatürk (Law No. 5816, dated 25/7/1951); and football and other sports betting (Law No. 5728, article 256). (Source: Akdeniz, Yaman, Organization for Security and Co-operation in Europe (OSCE), Report of the OSCE Representative on Freedom of the Media on Turkey and Internet Censorship, 2010).

Malicious Software: (Also known as malware) Any software programme developed for the purpose of doing harm to a computer system or create mischief. The most common are Viruses, Worms, and Spyware. (Source: Business Software Alliance, Cyber Safety Glossary, <<http://www.bsacybersafety.com/threat/malware.cfm>>).

Massively Multiplayer Online Game (MMOG): A game on the computer played by many people. People can log in, join the action and leave whenever they wish, although the game continues. (Source: PC Magazine, <http://www.pcmag.com/encyclopedia_term/0,2542,t=MMOG&i=56862,00.asp>).

Mobile Phone: Portable telephone device that does not require the use of landlines. Mobile phones utilize frequencies transmitted by cellular towers to connect the calls between two devices. A mobile telephone service provided by a network of base stations, each of which covers one geographic cell within the total cellular system service area. (Source: ITU, <http://www.itu.int/wsis/tunis/newsroom/stats/The_Portable_Internet_2004.pdf>).

Mobile Internet: Internet accessed via mobile devices such as mobile phones through advanced wireless technologies like Wi-Fi, WiMax, IMT-2000, ultra wideband and radio frequency identification (RFID) tags. These operate at long, medium and short ranges. Handheld devices that are Internet enabled could open up the information gateway in a new and exciting market, that could help further the goals of universal access while challenging manufacturers and service providers to meet different users' needs across the globe. (Source: ITU, <<http://www.itu.int/osg/spu/publications/portableInternet/ExecSummFinal2.pdf>>).

Mustafa Kemal Atatürk: The founder of the Turkish Republic and its first President for 15 years, until his death in 1938. (Source: Mustafa Kemal Atatürk, <<http://www.Ataturk.com/content/view/12/26/>>)

News Sites: Websites providing news material. Popular Turkish news sites include, Hurriyet, Vatan and Milliyet.

Online: A resource that is available over the Internet or a network. (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/readinessguide/glossary.html>>).

Online Content: Information that is available online. The "message" rather than the "medium." (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/readinessguide/glossary.html>>).

Penetration: A measurement of access to telecommunications, normally calculated by dividing the number of subscribers to a particular service by the population and multiplying by 100. (Source: ITU (2009), Glossary, Acronyms and Abbreviations, <http://www.itu.int/ITU-D/ict/publications/wtdr_99/material/glossary.html>).

Platform: A hardware and/or software architecture that serves as a foundation or base. (Source: PC Magazine, <http://www.pcmag.com/encyclopedia_term/0 per cent2C2542 per cent2Ct per cent3Dplatform&i per cent3D49362 per cent2C00.asp>).

Population: The number of all residents in a country, regardless of legal status or citizenship, excluding refugees not permanently settled in the country of asylum. Data are midyear estimates. (Source: World Bank, 'Country at a Glance technical Notes', <<http://go.worldbank.org/WG51XXDWB0>>).

Portal: refers to the starting point, or a gateway through which users navigate the World Wide Web, gaining access to a wide range of resources and services, such as e-mail, forums, search engines and shopping malls. Turkish examples include Mynet and Ekolay while a popular western portal used in Turkey is Yahoo!. (Source: ITU Glossary 1-ITU (2009), Glossary, Acronyms and Abbreviations, <http://www.itu.int/ITU-D/ict/publications/wtdr_99/material/glossary.html>).

Regions: Turkey is divided by 7 regions. Aegean to the west, Marmara to the northeast, Black Sea to the north, East Anatolia to the east, South Anatolia to the south east and Mediterranean to the south. (Source: CIA Factbook, <<https://www.cia.gov/library/publications/the-world-factbook/geos/tu.html>>).

Republic of Turkey Prime Ministry State Planning Organization (SPO): State Planning Organization is one of the top governmental agencies in Turkey, is the main policy formulation

institution at the national level. It was founded in 1960 in order to accelerate the economic, social and cultural development of Turkey. (Source: Republic of Turkey, Ministry of Development, <<http://www.dpt.gov.tr/ing/>>).

Republic of Turkey Prime Ministry Investment Support and Promotion Agency (ISPAT):

The Republic of Turkey Prime Ministry Investment Support and Promotion Agency (ISPAT) is the official organization for promoting Turkey's investment opportunities to the global business community and providing assistance to investors before, during and after their entry into Turkey. (Source: Republic of Turkey, Prime Ministry Investment Support and Promotion Agency, <<http://www.invest.gov.tr/en-US/Pages/Home.aspx/>>).

Rural: Any area that cannot be classified as urban with population of 20,000 and less. (See also Urban).

Search Engine: A web site that maintains an index and short summaries of billions of pages on the web. Example includes Google. (Source PC Magazine, <http://www.pcmag.com/encyclopedia_term/0,2542,t=Web+search+engines&i=54339,00.asp>).

SMS: Short Message Service. A service available on digital networks, typically enabling messages with up to 160 characters to be sent or received via the message centre of a network operator to a subscriber's mobile phone. (Source: ITU, <<http://www.itu.int/osg/spu/publications/portableInternet/ExecSummFinal2.pdf>>).

Social Networking Site: A web-based service that allows individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site. Examples Include Facebook and Myspace . (Source: Boyd, d. m., & Ellison, N. B. (2007), 'Social Network Sites: Definition, history, and scholarship, <<http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>>).

Software: The programmes or other 'instructions' that a computer needs to perform specific tasks. Examples of software include word processors, e-mail clients, web browsers, video games, spreadsheets, accounting tools and operating systems. (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/readinessguide/glossary.html>>).

Spam: The abuse of electronic messaging systems to send unsolicited bulk messages, which are generally undesired. (Source: International Telecommunication Union, <<http://www.itu.int/ITU-D/cyb/cybersecurity/spam.html>>).

TEPAV (Economic Policy Research Foundation Of Turkey):

The Economic Policy Research Foundation of Turkey (TEPAV) is an independent, non-governmental and non-partisan think-tank, established in October 2004. TEPAV intends to increase the knowledge content of policy discussions in Turkey. (Source: TEPAV (Economic Policy Research Foundation Of Turkey), <<http://www.tepav.org.tr>>).

The Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR):

Drafted in 1950 by the then newly formed Council of Europe, the Convention for the Protection of Human Rights and Fundamental Freedoms (commonly known as the European Convention on Human Rights (ECHR) is an international treaty to protect human rights and fundamental

freedoms in Europe. (Source: The Convention for the Protection of Human Rights and Fundamental Freedoms, <<http://conventions.coe.int/Treaty/EN/Treaties/html/005.htm>>).

The Convention on the Rights of the Child (CRC): The Convention on the Rights of the Child is the first legally binding international instrument to incorporate the full range of human rights—civil, cultural, economic, political and social rights. In 1989, world leaders decided that children needed a special convention just for them because people under 18 years old often need special care and protection that adults do not. The leaders also wanted to make sure that the world recognized that children have human rights too. The Convention on the Rights of the Child (CRC, 1989) guarantees the right to express views and to be heard (Art.12), freedom of expression, including the freedom to seek, receive and impart information (Art.13), the freedom of association and peacefully assembly, and the right to information (Art.17) amongst others. (Source: The Convention on the Rights of the Child, <<http://www.unicef.org/crc/>>).

Urban: In Turkey, settlements with population of 20,001 and over. (Source: UN Demographic Yearbook 2005, UNSD, <http://unstats.un.org/unsd/demographic/sconcerns/densurb/Defintion_of_per_cent20Urban.pdf>).

World Wide Web: The complete set of electronic documents stored on computers that are connected over the Internet and are made available by the protocol known as HTTP. The World Wide Web makes up a large part of the Internet. (Source: International Telecommunication Union, <<http://www.itu.int/ITU-D/ict>>).

Youth/Young People: Males and females, aged 14-24 years old. (Source: United Nations Children's Fund (UNICEF), The State of the World's Children 2011", <http://www.unicef.org/sowc2011/pdfs/SOWC-2011-Main-Report_EN_02092011.pdf>).