

The UaNet Generation

An Exploratory Study of the Ukrainian Digital Landscape

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ABSTRACT

This exploratory paper is part of a series examining the role of the Internet in the lives of youth living in Central and Eastern Europe and Commonwealth of Independent States. This report focuses on Ukraine and is based on secondary evidence gathered through a desk review of relevant literature. The first section describes the technological context of Ukraine and the peculiarities of its digital landscape. The Internet in Ukraine provides a range of technological platforms to a population that exchanges overwhelmingly on Russian and western-based websites and very little on Ukrainian-based websites. The second section investigates the use of digital networked technologies by Ukrainian adolescents and young people, including social networking, emailing and file sharing. The third section discusses the types of safety risks faced by Ukrainian youth when navigating the Internet. Research shows that adolescent and young people are facing risks such as exposure to adult content, and chatting with strangers and meeting them offline. The study concludes with the assertion that as the opportunities associated with information and communication technologies rapidly expand for Ukrainian adolescents and young people, so too does the need to educate them on the safe and optimal use of Internet.

SUMMARY OF FINDINGS

- Internet penetration grew from 3.75 per cent in 2005 to 23 per cent in 2010
- Stationary Internet is more popular than mobile Internet
- There is a large amount of Russian and western influence on the Ukrainian Internet
- The plurality of Ukrainian Internet users are young (14- to 24-years-old) and urban (Kyiv)
- Social networking, emailing, and file sharing are the main activities for Ukrainian adolescents and young people
- The most common online risk behaviour identified among Ukrainian adolescents and young people is meeting strangers offline
- Ukrainian adolescents and young people are more often exposed to safety risks when using stationary Internet than they are on mobile Internet

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 subsequently 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 maximise 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 analysed and clearly applied to this digital age.

1. INTRODUCTION

1.1. Background

The history of Ukraine is inextricably linked to that of Russia. Following the Russian Revolution of 1917, Ukraine was admitted to the Union of Soviet Socialist Republics (USSR) as the Ukrainian Soviet Socialist Republic. It has only been two decades since Ukraine gained its national independence, following the dismantling of the USSR in 1991. While the official language of Ukraine is Ukrainian, 52 per cent of Ukrainians list their “language of daily communication” as Russian, while 41 per cent list Ukrainian.¹ This linguistic trend is also found in the Ukrainian school system, where parents have the option of choosing either mainly Russian language or mainly Ukrainian language schools for the education of their children.² In the digital world, adolescents and young people are faced with a similar option: choosing to use Ukrainian- versus Russian-based websites, with the added option of western sites.

Given the linguistic and cultural connections upheld by centuries of common history, it is not surprising that the Ukrainian digital landscape is in many regards similar to the Russian landscape. The UaNet - the cognate of the Russian term RuNet, both deriving from their respective domain names - includes a mixture of Russian, western and a minority of Ukrainian-based websites.

Ukrainian youth surf on websites that are mainly Russian and western domains, the larger of which offer Ukrainian versions.³ As of 2011, the most popular email service, networking site and blogging platform in Ukraine are Russian-based.⁴ Since Russian websites lead in the UaNet, the opportunities and risks of the UaNet are similar to those of the RuNet.

Ukraine now has an Internet penetration of 23 per cent.⁵ While this figure is lower than that of most western nations, it is the result of a 500 per cent growth in the last five years.⁶ The plurality of Internet users are adolescents and young people, with over a third of users aged 14-24.⁷ Given that young people are active online, it is crucial that we gain an understanding of their behaviour on the Internet and the risks associated with its use.

¹ Public Opinion Foundation of Ukraine, ‘Мнения и взгляды населения Украины в сентябре – октябре 2009 года’ [Opinions and Views of the Population of Ukraine in September - October 2009], 2009 <http://bd.fom.ru/report/map/ukrain/ukrain_eo/du091015#>.

² Верховна Рада України ‘Про мови в Українській РСР’, Стаття 27 [Concerning Languages in Ukraine SSR. Section 27].

³ The term ‘Ukrainian versions’ is used throughout this paper as including Yandex.ua, Odnoklassniki.ua, Google.ua, and websites like Facebook and VKontakte which give the option to choose Ukrainian as a language.

⁴ InMind, ‘Opinion Software Media, March 2011 [Russian] <<http://www.inau.org.ua/download.php?532751fb3806f5110d863dd81e62f982&target=1>>, (accessed May 3, 2011).

⁵ International Telecommunication Union (ITU), ‘Mobile cellular subscriptions’, 2010, <<http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/MobileCellularSubscriptions00-10.xls>> (accessed July 13, 2011).

⁶ Ibid. According to ITU 2010: UK 110.25%, Switzerland 123.62%, Sweden 113.54%, Spain 111.75%, Serbia 129.19%.

⁷ Gemius Ukraine, ‘Аудитория Уанета, Апрель 2011 г.’, [Uanet Audience April 2011], 2011.

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 Ukrainian youth.

1.3. Methodology

Research process

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

As an ongoing process during the research, the methodologies of the studies found were checked for their reliability, as were the background and experience of the sources' institutions. The reliability of the institutions is measured based on sampling frame, the questionnaire used and the experience of the institutions in conducting research in the focused area.

A literature search was conducted on the Internet in Ukrainian, Russian, and English. Mainly Russian and western search engines including Yandex.ua and Google.ua, were utilized. The use of local language and search tools such as Ukr.net, a portal providing access to search engines such as Yandex, Google, and Bing, helped in the research process, to ensure that all local sources were identified.

Sources utilized

The State Statistics Committee of Ukraine and the Onlandia coalition⁸ carried out nation-wide quantitative research, which is used in this report. Other primary research explored in this report comes from United Nations, National Academy of Sciences of Ukraine (NAS), and Kyivstar. These sources were identified as stemming from reputable organizations, containing large sample sizes and reliable methodologies.

Valuing local sources and expertise

A detailed process was carried out in weighing all the international and local sources, which consisted of ranking the value of sources in the following order: United Nations, government sources, state funded institutions, universities, and private actors. For the CEECIS region, it has generally been found that there are very few international sources that discuss digital behaviour and safety risks in relation to adolescents and young people through a proper evidence-based

⁸ Microsoft initiative in collaboration with private and public sector partners, including the Ministry of Education, Youth and Sports, the Ministry of Internal Affairs, UNICEF, UNESCO and ECPAT to form the 'Coalition for Children's Safety on the Internet' and launch 'Onlandia: Safe Web Country' as a free resource for children, teachers and parents, < <http://www.csr-ukraine.org/microsoft.html?lang=en> > (Accessed 11 April 2011).

approach. Therefore, it became increasingly important to work with Ukrainian-speaking researchers and Ukrainian experts.

Researchers translated the Ukrainian and Russian literature into English and consulted with Ukrainian experts on the validity of results and reliability of sources.

In order to validate our findings and gather local perspective, local experts were consulted such as Natalya Bochkor, at La Strada Ukraine⁹, Courtney Zukoski, at Microsoft Ukraine, and Olena Zhynshik at InMind Organization¹⁰.

The findings of this exploratory study were subject to a validation workshop, which took place in Kyiv (Ukraine) in September, 2011. 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 was carefully checked against all available sources. This mitigated the risk of valuing any invalid fact and false hypothesis formulation.

Seven studies were identified that contained information relevant to our objective. These studies were grouped and analysed based on the content of their results.

⁹ A non-governmental organization in Ukraine with goal to “prevent trafficking in women and helping the victims of trafficking”, <<http://www.brama.com/lastrada/>> (Accessed 20 April 2011).

¹⁰ InMind is a market research agency, part of the International research network Factum Group, specializing in surveys including industries, consumers, media, public opinion, corporate reputation, <<http://inmind.com.ua/en/>> (Accessed 8 April 2011).

2. CONTEXT

2.1. Overview of Ukraine

An independent nation since 24 August 1991, Ukraine is comprised of 24 oblasts¹¹, the Autonomous Republic of Crimea¹² and two cities of special status¹³: the capital city of Kyiv and the naval base of Sevastopol. Ukraine is the second largest country in Europe by land area and population, with nominal GDP of 136.561 billion USD.¹⁴ The global financial crisis had a visible economic impact on the country; GDP decreased by 14.8 per cent in 2009 and unemployment rate increased from 6.9 per cent in 2007 to 9.6 per cent in 2009.¹⁵ Between 1998 and 2008, poverty rose by 9 per cent in rural areas and decreased by 5.5 per cent in urban areas, creating a growing socioeconomic gap.¹⁶

According to the State Statistics Committee of Ukraine, the population of Ukraine is over 45 million as of 2011.¹⁷ Approximately 69 per cent of Ukraine's population is urban, while 31 per cent is rural. The most densely populated oblasts in Ukraine are Donetsk, (accounting for 9.67 per cent of the population), followed by Dnipropetrovsk (7.29 per cent), Kharkiv (6.02 per cent), Lviv (5.56 per cent) and Odesa (5.22 per cent).¹⁸

Approximately 19 per cent of the total population of Ukraine is young people aged 10-24 and the majority of them (67 per cent) live in urban areas.¹⁹ The most populous oblasts also contain the highest percentage of young people in Ukraine: Donetsk oblast has 8.92 per cent of Ukrainian youth, followed by Dnipropetrovsk (7.06 per cent), Lviv (6.01 per cent), Kharkiv (5.76 per cent) and Odesa (5.33 per cent).²⁰ Approximately 6.12 per cent of the total population of Ukraine

¹¹ The oblast is the main territorial division of Ukraine, though smaller subdivisions of these exist. Chapter XI 'Territorial Structure of Ukraine', Article 132, Constitution of Ukraine <<http://www.rada.gov.ua/const/conengl.htm#r9>>, (Accessed 19 July 2011).

¹² The Autonomous Republic of Crimea is a parliamentary republic, which governs under the umbrella of Ukraine's national executive and judicial systems. Its functions and rights are laid out in Chapter X 'Autonomous Republic of Crimea' of the Constitution of Ukraine <<http://www.rada.gov.ua/const/conengl.htm#r10>>, (Accessed 19 July 2011).

¹³ City administrations hold executive power in Kyiv and Sevastopol, but are legally subordinate to the national government. Special status established in Chapter XV 'Transitional Provisions' of the Constitution of Ukraine, <<http://www.rada.gov.ua/const/conengl.htm#r15>> (Accessed July 24, 2011).

¹⁴ International Monetary Fund, 'World Economic Outlook Database: Ukraine,' 2010, <<http://www.imf.org/external/pubs/ft/weo/2010/02/weodata/weorept.aspx>>, (accessed 9 June 2011).

¹⁵ State Statistics Committee of Ukraine, 'Basic Indicators on Labor Market' 2010, <http://www.ukrstat.gov.ua/operativ/operativ2007/rp/ean/ean_e/osp_rik07_e.htm>, (accessed 12 July 2011).

¹⁶ Ministry of Economy of Ukraine, *Millennium Development Goals: Ukraine 2010 National Report*, 2010 <http://www.mfa.gov.ua/data/upload/publication/uno/ua/47997/mdgs_ukraine_2010_report_engl.pdf>, (accessed 12 July 2011).

¹⁷ State Statistics Committee of Ukraine, 'Total Population as of April 2011', 2011, <http://www.ukrstat.gov.ua/operativ/operativ2011/ds/kn/kn_e/kn0311_e.html>, (accessed 21 June 2011).

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Ibid.

resides in the capital city of Kyiv, including 5.96 per cent of the country's young people.²¹ The literacy rate for young people in Ukraine is nearly 100 per cent with no discrepancy between genders.²²

2.2. Selected overview: technological context

Despite having the second largest population in Europe, Ukraine's ICT market is among the most underdeveloped on the continent. In 2009, the Ukrainian telecom market generated 36.4 billion Ukrainian Hryvnia (UAH)²³ in service revenue, a 4.5 per cent decline in local currency compared with 2008 levels²⁴, and much lower than other nations in the region.²⁵

Telephony

The major players in the mobile telephony market are Kyivstar and Ukrainian Mobile Telecommunication JSC (fully owned by the Russian group Mobile TeleSystems OJSC [MTS Russia]), controlling approximately 40 per cent, and 32 per cent respectively, as of June 2010.²⁶ Over the past decade, telecom services expanded, with independent providers challenging the traditional dominance of the national monopoly, Ukrtelecom.²⁷ Mobile subscribers penetration in Ukraine stands at a staggering 118.66 per cent²⁸, competing with its European neighbours²⁹.

²¹ State Statistics Committee of Ukraine, and the Institute of Social and Demographic Research of the National Academy of Sciences of Ukraine, 'Population Data 1990-2011,' 2010, <http://www.ukrstat.gov.ua/operativ/operativ2007/ds/nas_rik/nas_e/nas_rik_e.html>, (accessed 13 July 2011).

²² World Bank, 'Literacy rate, youth total (% of people ages 15-24)' 2009, <<http://data.worldbank.org/indicator/SE.ADT.1524.LT.ZS>>, (accessed 5 July 2011).

²³ 36.4 bn UAH = 4.55 bn USD at the rate of 1 UAH = 0.12518 USD, <<http://www.xe.com/ucc/?r=4#rates>> (accessed 13 July 2011).

²⁴ Business Wire, 'Research and Markets: Ukraine's Mobile Data's Share of Total Telecom Revenue Will Grow from 14.5% in 2010 to 18.7% in 2015 from UAH5.6Bn (\$712M) to UAH9.1Bn (\$1.3Bn)' January 2011, Referencing 'Ukraine Telecom Intelligence Report - 3G Licensing and Ukrtelecom Privatization' report, <<http://www.businesswire.com/news/home/20110107005070/en/Research-Markets-Ukraines-Mobile-Datas-Share-Total>>, (accessed July 13, 2011).

²⁵ 1.3 trillion rubles (35.64 billion USD) revenue of telecom in Russia in 2009, <<http://www.rustele.com/news-and-events/russia-s-telecom-services-revenues-grew-by-over-6-pct-in-2009.html>>, (accessed 13 July 2011).

²⁶ Business Monitor International 'Recently released market study: Ukraine Telecommunications Report Q4 2010, <<http://www.pr-inside.com/print2166820.htm>>, (accessed 8 July 2011).

²⁷ Roman Olearchyk, Financial Times, 13 October 2010, <<http://www.ft.com/cms/s/0/7f7aceda-d6ae-11df-98a9-00144feabdc0.html#axzz1SaMmCqgQ>>, (accessed 5 July 2011).

²⁸ International Telecommunication Union (ITU), 'Mobile cellular subscriptions', 2010, <<http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/MobileCellularSubscriptions00-10.xls>> (accessed July 13, 2011).

²⁹ Ibid. According to ITU 2010: UK 110.25%, Switzerland 123.62%, Sweden 113.54%, Spain 111.75%, Serbia 129.19%.

Internet

Internet penetration in Ukraine grew approximately 500 per cent in five years, from 3.75 per cent in 2005 to 23 per cent in 2010.³⁰ Still, this figure is only a quarter of the penetration in most western European nations.³¹

Ukrainian websites lagging behind

Foreign websites are accessed by Ukrainian Internet users more than Ukrainian sites. Among the top ten Internet websites visited by Ukrainian users, only three of them are Ukrainian: Ukr.net, i.ua – a portal with news information, email access, online shopping etc., and Marketgid – a portal with news information, online shopping etc. The foreign sites that top the list are Russian sites including VKontakte (a social networking site), Yandex, Odnoklassniki, (a social networking site) and Mail.ru (an email service), and western sites such as Google, Youtube and Wikipedia.³²

3. OPPORTUNITIES

3.1. Digital access

Digital Divide

The digital landscape in Ukraine is sharply divided geographically. A digital divide persists with the urban population being the heaviest Internet users. In fact, 57 per cent of Internet users are concentrated in urban areas with populations greater than 500,000. Figures from April 2011 indicate that 39 per cent of Ukrainian Internet users are located in the city of Kyiv and the Kyiv Oblast, although this area accounts for just under 10 per cent of the nation's total population.³³ After Kyiv, Internet users have a strong presence in the east (27 per cent), and the south (16 per cent), while the west (10 per cent), centre (5 per cent) and north (3 per cent)³⁴ have lower proportions of users.³⁵

³⁰ International Telecommunication Union (ITU), 'Internet Users' 2010, <<http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/InternetUsersPercentage00-10.xls>> (accessed July 13, 2011).

³¹ Ibid. According to ITU 2010: UK 85.00%, Switzerland 83.90%, Sweden 90.00%.

³² InMind, 'Opinion Software Media', March 2011 [Russian].

³³ Ibid.; State Statistic Committee of Ukraine 2011.

³⁴ For the purpose of this study, oblasts were grouped into regions: north, south, west, east and center. North includes Zhytomyr, Sumy and Chernihiv oblasts. South includes Zaporizhzhya, Kremia, Mykolayiv, and Odesa oblasts. West includes Volyn, Zakarpattaya, Ivono-Frankivsk, Lviv, Rivne, Ternopil, Khmelnytskyi, and Chernivtsi oblasts. The East includes Donetsk, Dnepropetrovsk, Luhans'k, and Kharkiv oblasts. The Center includes Vinnitsya, Kirovohrad, Poltava and Cherkasy oblasts. The city of Kyiv and Kyiv oblast are not included in these regions.

³⁵ Gemius Ukraine, 'Аудитория Уанета, Апрель 2011 г.' [Uanet Audience April 2011], 2011.

While 31 per cent of Ukrainians live in rural areas, only 7 per cent of Ukraine's Internet users are located there.³⁶ Opportunities for digital access for Ukrainian adolescents and young people are clearly dependent on location, with very high levels of access in Kyiv, slightly lower levels in other larger cities, and very low levels in rural areas.

Ukrainian youth online

Research conducted on Ukrainian Internet users aged 14 and older revealed that 36 per cent are aged 14-24, 29 per cent are 25-34, 19 per cent are 35-44, with only 4 per cent over the age of 55.³⁷

Ukrainians access the Internet from home

Ukrainians primarily access the Internet from their own homes (90 per cent) or work (39 per cent). Less popular access points include schools and universities (8 per cent), Internet cafes (7 per cent) or a friend or relative's home (12 per cent). A reported 6 per cent access the Internet from other locations.³⁸ A 2009 survey of urban Ukrainian adolescents and young people³⁹ aged 6-17 found that 66 per cent of Ukrainian youth access the Internet from a stationary computer located in the home.⁴⁰ The second most popular means of access is a computer in a friend or acquaintance's home, which may point to the absence of parental supervision while the young user is online.

Ukrainian youth online everyday

According to figures from 2011, 86 per cent of Ukrainian Internet users aged 14 and over access the Internet every day, 12 per cent several times a week and 1 per cent only once a week⁴¹. Frequency of access appears lower among the youngest users but increases with age. A survey of urban Internet users aged 6-17 indicated that among 9- to 14-year-olds, 23 per cent accessed the Internet from a personal computer several times a day, 26 per cent accessed it once a day and 20 per cent went online several times a week. Among 15- to 17-year-olds, the frequency of use had increased to 39 per cent accessing the Internet several times a day, with 23 per cent accessing the Internet once a day and 17 per cent accessing it several times a week.⁴²

³⁶ Ibid.

³⁷ Ibid.

³⁸ Ibid.

³⁹ Respondents were from cities with a population of 250,000, including Zhytomyr, Sumy, Odesa, Simferopol, Dnipropetrovsk, Kharkiv, Lviv, Chernivtsi, Vinnitsya, Poltava and the city of Kyiv.

⁴⁰ Kyivstar, National Academy of Sciences of Ukraine', Знання та відношення українців до питання безпеки дітей в інтернеті' [Knowledge and Attitudes of Ukrainians about Safety of Children on the Internet], 2009.

⁴¹ Gemius Ukraine, 'Аудиторія Уанета, Апрель 2011 г.', [Uanet Audience April 2011], 2011.

⁴² Kyivstar, National Academy of Sciences of Ukraine', Знання та відношення українців до питання безпеки дітей в інтернеті' [Knowledge and Attitudes of Ukrainians about Safety of Children on the Internet], 2009.

3.2. Digital activities

3.2.1. Communication activities

Email

The top activity for Ukrainian Internet users in 2010 was email, most often accessed at Mail.ru, Yandex, and Google Mail. Fifty five per cent of Ukrainian Internet users 16 years of age and older are using electronic mail.⁴³ The National Academy of Sciences survey found that 26 per cent of young people in Ukraine aged 6-17 use email to communicate.⁴⁴

Social Networking Sites

After email, social networking sites (SNS) are the second most popular platform for communication among Internet users. While there are no widely used Ukrainian-based SNS, Russian and western SNS are frequently used for communication by Ukrainian users. At the end of 2010, 37 per cent of the entire Internet audience in Ukraine used SNS.⁴⁵ A 2010 survey of 7,600 youth aged 10-17 from the regional centers of 11 regions concluded that 56 per cent of 10- to 17-year-olds use SNS.⁴⁶ In the period of 2008-2011, more than 80 per cent of Ukrainian Internet users joined the Russian social networks Odnoklassniki and VKontakte. As of January 2011, there are 5.9 million Ukrainian VKontakte accounts. There are one million Ukrainian users of Facebook as of January 2011, compared to 200,000 the year before.⁴⁷

The leading SNS among urban Internet users aged 12-65 in Ukraine is the Russian platform VKontakte. Approximately 47 per cent visit VKontakte at least once a month, 12 per cent know about it but don't visit, while 41 per cent don't know about it.⁴⁸ Joining VKontakte is free of charge and initially was available openly, but in February 2011 VKontakte instituted an 'invite only' policy. Any person wanting to join the SNS must receive an invitation from a current user, and then enter a code given by the currently registered user. This new registration strategy is likely intended to help to control the existence of clone and spam accounts.⁴⁹ No age restriction applies to registering on VKontakte.

Among Internet users, the highest number of VKontakte users are 20- to 29-years-old (38 per cent) and the second highest are 16- to 19-years-old (22 per cent).⁵⁰ A survey of young people

⁴³ GfK 'Третя українців уже в інтернеті,' [Third of Ukrainians are Online] May 2010.

⁴⁴ Kyivstar, National Academy of Sciences of Ukraine, 'Знання та відношення українців до питання безпеки дітей в інтернеті' [Knowledge and Attitudes of Ukrainians about Safety of Children on the Internet], 2009.

⁴⁵ TNS, 'Українці в соціальних сетях' [Ukrainian Social Networking] 2011.

⁴⁶ Microsoft, UNESCO, 'Рівень обізнаності українців щодо питань безпеки дітей в Інтернеті' [The level of awareness of the Ukrainians on the safety of children using the Internet] 2011.

⁴⁷ IREX, 'Media Sustainability Index 2011',
<http://www.irex.org/sites/default/files/EE_MSI_2011_Ukraine.pdf> (Accessed 28 October 2011).

⁴⁸ TNS, 'Українці в соціальних сетях' [Ukrainian Social Networking] 2011.

⁴⁹ Gazeta.ru, 'Спамеры закрыли "ВКонтакте"' [Spammers Have Shut 'VKontakte'], 11 February 2011,
<<http://www.gazeta.ru/business/2011/02/11/3521358.shtml>> (Accessed 24 July 2011).

⁵⁰ Ibid.

aged 6-17 revealed that 35 per cent use VKontakte.⁵¹ Users create profiles, connect with friends, update statuses, create and join groups, share and download files, blog and/or post photos and videos.

The second most popular SNS in Ukraine is Odnoklassniki.ru, also a Russian-bred site. Free and open for anyone of any age to join, Odnoklassniki users, like VKontakte users, can create a profile, connect with friends, publish photos, update statuses and join groups. However, unlike VKontakte, Odnoklassniki focuses primarily on allowing users to search for their classmates and/or colleagues, by name, location, school, year of graduation, etc.⁵²

Among Internet users aged 12-65, 35 per cent visit Odnoklassniki at least once a month, 19 per cent know about it but don't visit, while 46 per cent do not know about it. Similar to VKontakte, the highest number of Odnoklassniki users are 20- to 29-years-old (32 per cent) while, the second highest are older, 30- to 39-years-old (25 per cent).⁵³ In a 2009 survey of Ukrainian young people aged 16-17, 16 per cent report using Odnoklassniki.⁵⁴

Less popular but still represented are western SNS such as Facebook. Only 12 per cent of urban Internet users aged 12-65 use Facebook at least once a month.⁵⁵

These trends are strikingly similar to the ones of Russian youth who favour VKontakte over Odnoklassniki and Facebook.

3.2.2. User generated content: blogging

There is little research into the question of whether Ukrainian youth are creating content as much as they are consuming it. However, research shows that blogging is gaining traction in Ukraine; as of 2009, Ukrainians had 420,000 blogs, and interacted in 20,000 blogging communities, a 70 per cent increase from 18 months prior.⁵⁶ The number of Ukrainian blogs increased from 500,000 to 700,000 from 2009 to 2010, with 120,000 active blogs.⁵⁷

⁵¹ Kyivstar, National Academy of Sciences of Ukraine, 'Знання та відношення українців до питання безпеки дітей в інтернеті' [Knowledge and Attitudes of Ukrainians about Safety of Children on the Internet], 2009.

⁵² Alexa Rankings, 'Odnoklassniki' <<http://www.alexa.com/siteinfo/odnoklassniki.ru#>> (Accessed 3 May 2011).

⁵³ TNS, 'Українцы в социальных сетях' [Ukrainian Social Networking] 2011.

⁵⁴ Kyivstar, National Academy of Sciences of Ukraine, 'Знання та відношення українців до питання безпеки дітей в інтернеті' [Knowledge and Attitudes of Ukrainians about Safety of Children on the Internet], 2009.

⁵⁵ Ibid.

⁵⁶ Yandex, 'Блогосфера України' [Blogosphere of Ukraine] 2009.

⁵⁷ Viktor Kovalenko, Kyiv Post, 'Corporate press to be replaced by corporate blogging? Corporate press to be replaced by corporate blogging?', January 19, 2011, <<http://www.kyivpost.com/blogs/blogger/538/post/5961/print/>> (Accessed 28 October 2011).

The average blogger in Ukraine has been identified to be a 22-year-old female from Kyiv with 19 friends, who participates in 13 blogging communities.⁵⁸ There is a dearth of literature examining the content of blogs in Ukraine.

The majority of Ukrainian blogs are located on foreign blog hosting sites, particularly LiveJournal.com, Blog.mail.ru, and LiveInternet.ru. However, 15 per cent of blogs can now be found on Ukrainian sites, including Dnevnik, Blog.i.ua, Blog.meta.ua and Biox.ua.⁵⁹

In terms of microblogging platforms, the use of Twitter is present but still limited in Ukraine. As of early 2010, there were 35,500 Ukrainians on Twitter, 15 per cent of who post daily. Fifty-nine per cent of the Ukrainian Twitter user-base is located in Kyiv.⁶⁰ Ukrainian Twitter audience grew 400% during the last two quarters of 2010 from 35,000 to 80,000 users.⁶¹

3.2.3. Ukrainian e-commerce

Thirty five per cent of Internet users aged 14-65 search for information about manufacturers, products, services and prices online. Nine per cent of Ukrainian Internet users aged 14-65 report purchasing and selling goods online,⁶² but no hard data exist on the use of shopping websites by adolescents and young people. Ukrainian use shopping websites including Marketgid.ua and Emarket.ua.

4. IDENTIFYING SAFETY RISKS

4.1. The risks

The review of relevant literature revealed that exposure to malicious software, adult content, and fraud, sharing of personal information and meeting of strangers are all safety risks associated with Internet use in Ukraine. The literature did not provide hard data with regards to exposure to extremist content, cyberbullying, hateful content, grooming and gambling, although this is not to say that these safety issues do not exist in Ukraine. Research also suggests that

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Twitter, 'За даними Яндекс твітер в Україні за останні півроку збільшився вдвічі,' 2010, <http://twitter.in.ua/page/za-danimi-jandeks-tviter-v-ukrayini-za-ostanni-pivroku-zbilshivsja-vdvichi> (accessed 21 June, 2011).

⁶¹ Viktor Kovalenko, Kyiv Post, 'Corporate press to be replaced by corporate blogging? Corporate press to be replaced by corporate blogging?', January 19, 2011, <<http://www.kyivpost.com/blogs/blogger/538/post/5961/print/>> (accessed 28 October 2011).

⁶² GfK 'Третя українців уже в інтернеті,' [Third of Ukrainians are Online] May 2010, (accessed 12 June, 2011).

there is a higher correlation between stationary Internet usage and experience of risk than there is with the use of mobile Internet.⁶³

4.1.1. Malicious software⁶⁴

An estimated 86 per cent of software in Ukraine is pirated.⁶⁵ The use of such pirated software leaves Ukrainian Internet users at a heightened risk from malicious software. Internet users in Ukraine are consequently more vulnerable to malicious software than those from other countries, with a 1 in 48 chance of being attacked by malicious software on a given day, compared to the global average of 1 in 78.⁶⁶ Thirty nine per cent of Ukrainian Internet users aged 10-17 identified 'viruses' as a risk on the Internet.⁶⁷

4.1.2. Exposure to images or messages containing sexual content

Among Internet users aged 10-17, 21 per cent identified adult content as a risk on the Internet.⁶⁸ Among urban Ukrainians aged 6-17, 7 per cent of stationary Internet users reported receiving a "pornographic"⁶⁹ link in the last month, 14 per cent of whom reported clicking on the link. Nineteen per cent reported ending up on a "pornographic" site in the last month, 22 per cent of whom reported staying on the site. Eleven per cent reported that they currently visit such a site.⁷⁰

⁶³ Kyivstar, National Academy of Sciences of Ukraine, 'Знання та відношення українців до питання безпеки дітей в інтернеті' [Knowledge and Attitudes of Ukrainians about Safety of Children on the Internet], 2009.

⁶⁴ Malicious software (often abbreviated to 'malware') is "any software programs 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 <<http://www.bsacybersafety.com/threat/malware.cfm>>, (accessed 7 July, 2011).

⁶⁵ BSA, *Eighth Annual BSA Global Software 2010 Piracy Study*, May 2011, <http://portal.bsa.org/globalpiracy2010/downloads/study_pdf/2010_BSA_Piracy_Study-Standard.pdf> (accessed 2 July, 2011).

⁶⁶ AVG 'New AVG Research Shows Turkey and Russia as Most Risky Places to Surf the Net, Sierra Leone and Japan Among Safest', August 26, 2010 <<http://www.avg.com/ww-en/press-releases-news.ndi-232210>>, (visited August 3, 2011).

⁶⁷ Microsoft, UNESCO, 'Рівень обізнаності українців щодо питань безпеки дітей в Інтернеті' [The Level of Awareness of the Ukrainians on the Safety of Children Using the Internet] 2011.

⁶⁸ Ibid.

⁶⁹ In cases where the child was under 12, the phrases "website on which there are images of naked people" was used in the survey.

⁷⁰ Microsoft, UNESCO, 'Рівень обізнаності українців щодо питань безпеки дітей в Інтернеті' [The Level of Awareness of the Ukrainians on the Safety of Children Using the Internet] 2011.

Among mobile Internet users the figures were much lower. Only 2 per cent reported receiving “pornographic links”, 3 per cent ended up on a “pornographic site” and 2 per cent reported visiting such sites in the last month.⁷¹

4.1.3. Sharing of personal information

Forty six per cent of Ukrainian Internet users aged 10-17 give out their personal mobile phone number on a social networking site while 36 per cent share their home address and 51 per cent share personal photos.⁷²

Among urban Internet users aged 6-17, 8 per cent of stationary Internet users had been asked for detailed information on their address, parents’ occupation or vacation times in the last month. Seventeen per cent of those who were asked for this information, supplied it. This trend is less common on mobile Internet, with only 1 per cent of mobile Internet users asked to share personal information. In addition, 14 per cent of stationary Internet users were asked to supply personal photographs in the last month, of whom 28 per cent agreed to supply them, while only 2 per cent of mobile Internet users were asked to do so.⁷³

4.1.4. Meeting strangers

Data suggest that meeting strangers is a risk experienced by large numbers of Ukrainian adolescents and young people and that the level of this risk increases with age. There may be a false feeling of safety that comes along with such a meeting, as the counterparts may have been communicating for a period of time before the face-to-face meeting and thus feel like they know each other. Eleven per cent of 10- to 11-year-olds reported having met someone they knew from the online world in real life, and this figure rises to 21.7 per cent among 12- to 13-year-olds and 33.7 per cent among 14- to 15-year-olds. For respondents aged 16-17, this figure stands at 60.3 per cent.⁷⁴

4.1.5. Exposure to violent content

There is a lack of reliable information on the extent of exposure to violent content and the risk it poses for adolescents and young people in Ukraine. Only one piece of evidence was identified,

⁷¹ Kyivstar, National Academy of Sciences of Ukraine, ‘Знання та відношення українців до питання безпеки дітей в інтернеті’ [Knowledge and Attitudes of Ukrainians about Safety of Children on the Internet], 2009.

⁷² Microsoft, UNESCO, ‘Рівень обізнаності українців щодо питань безпеки дітей в Інтернеті’ [The Level of Awareness of the Ukrainians on the Safety of Children Using the Internet], 2011.

⁷³ Microsoft, UNESCO, ‘Рівень обізнаності українців щодо питань безпеки дітей в Інтернеті’ [The Level of Awareness of the Ukrainians on the Safety of Children Using the Internet] 2011.

⁷⁴ Microsoft, UNESCO, ‘Рівень обізнаності українців щодо питань безпеки дітей в Інтернеті’ [The Level of Awareness of the Ukrainians on the Safety of Children Using the Internet] 2011.

citing that 13 per cent of urban stationary Internet users aged 6-17 reported being offered violent content on the Internet in the last month, compared to only 2 per cent of mobile Internet users.⁷⁵ Unfortunately the exact nature of this content was not discussed.

4.1.6. 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.”⁷⁶

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”.⁷⁷ Nevertheless, different studies tend to use different definitions and criteria when carrying out research into the phenomenon, which can yield to inconsistent results.

The term also exists in the Ukrainian language, as *kiber-buling*, although no agreed upon Ukrainian definition has been found. The research was unable to identify any concrete cases reported as cyberbullying.

4.1.7. Other risks identified by the exploratory research

In addition to the risks discussed above, research indicated that among urban Internet users aged 6-17, 26 per cent of stationary Internet users and 6 per cent of mobile Internet users received “offers to take part in a lottery/sweepstakes or providing information to win something” in the last month. Seven per cent of stationary Internet users who received them agreed to these offers.⁷⁸ While this category could be linked to the internationally recognized category ‘spamming’, it is unclear whether or not the identified Ukrainian research categorizes the risk as such.

⁷⁵ Kyivstar, National Academy of Sciences of Ukraine, ‘Знання та відношення українців до питання безпеки дітей в інтернеті’ [Knowledge and Attitudes of Ukrainians about Safety of Children on the Internet], 2009.

⁷⁶ Committee on the Rights of the Child CRC/C/GC/13, Fifty-sixth session, Geneva, 17 January - 4 February 2011.

⁷⁷ 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).

⁷⁸ Microsoft, UNESCO, ‘Рівень обізнаності українців щодо питань безпеки дітей в Інтернеті’ [The Level of Awareness of the Ukrainians on the Safety of Children Using the Internet] 2011.

Research also demonstrates that 7 per cent of stationary Internet users and 1 per cent of mobile Internet users aged 6-17 were asked to “be in a film” in the last month. Five per cent of stationary Internet users, who were asked, agreed.⁷⁹ However, the nature of the film was not specified, making the level of risk difficult to ascertain. Still, this may be evidence of the production of child abuse images or grooming.

Seven per cent of stationary Internet users and 1 per cent of mobile Internet users reported that they had been offered drugs online in the last month, 11 per cent of whom claimed to have accepted them.⁸⁰ Though research in other countries has not identified this as a significant risk to adolescents and young people, it is possible that this risk is unique to the Ukrainian digital environment and merits more research.

5. MONITORING THE UANET

As Internet use grows in Ukraine, particularly among adolescents and young people, steps have been taken to address the attendant risks that come with digital activity. Research shows that both governmental and private actors are taking such initiatives. While governmental actors have typically focused on the adoption of relevant legislation to protect users, public and private actors have established hotlines where users can denounce indecent content.

Hotlines and other initiatives for Internet safety

La Strada Ukraine, a Ukrainian non-governmental organization established in 1997 with the goal to “prevent trafficking in women and helping the victims of trafficking”, maintains an Internet hotline to report anonymously the presence of child abuse images.⁸¹ The organization issues an annual report detailing the complaints it received, the nature of the content contained in the complaints, and on what type of sites child abuse images were discovered.

ONLANDIA, Microsoft initiative in collaboration with private and public sector partners, provides a free online safety informational resource for children, teachers and parents. In 2010 they conducted training sessions on digital safety for children and adolescents in conjunction with the Ukrainian Ministry of Education, Youth and Sports. The Ministry distributed instructional manuals related to safe ICT use among children and adolescents to state schools for implementation within the curricula and community and for use by teacher and parents.⁸²

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ La Strada-Ukraine, <http://internetbezpeka.org.ua/mod_content/show/about-project.html>.

⁸² Україна Міністерство освіти і науки, ‘Про захист дітей від негативних інформаційних впливів’ [About Protection of Children from Negative Information Influence] № 377/09 January 2011.

6. 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 Ukraine. This prevented 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 (cities with a population of 250,000 or less are underrepresented in the available research)
- Safety risks faced by adolescents and young people, notably cyberbullying and exposure to violent and/or extremist content as well as suggestive/explicit self-exposure
- The level of awareness of adolescents and young people of the risks they are facing on the UaNet
- Topics that adolescents and young people blog about
- The types of content Ukrainian users download and upload on the Internet

7. CONCLUSION

The development of the Ukrainian digital landscape is a relatively recent development in which adolescents and young people are particularly active. The exploratory research shows that in comparison to neighbouring countries like Russia, there is a dearth of nationally-based platforms in Ukraine pointing to the scarcity of digital innovations. Furthermore, the research found that Ukrainian youth are highly exposed to the risk of meeting online strangers offline, underlining the need for stronger digital literacy. Similarly, malicious software and exposure to adult content call for a pressing need to raise awareness among Ukrainian youth on the risks associated with Internet use.

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>).

Autonomous Republic of Crimea- The autonomous republic of Crimea is a parliamentary republic, which governs under the umbrella of Ukraine's national executive and judicial systems. (Chapter X 'Autonomous Republic of Crimea' of the Constitution of Ukraine. <<http://www.rada.gov.ua/const/conengl.htm#r10>>).

Blog: A Web site that contains dated text entries in reverse chronological order about a topic (most recent entry first). Blogs serve many purposes from personal journals to online newsletters. Written by one person or a group of contributors, entries contain commentary, observations and opinions and may include 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>).

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>).

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 email 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>>).

Emerging Economies/Emerging Markets: Developing countries' financial markets that are less than fully developed, but are nonetheless broadly accessible to foreign investors. (Source: International Monetary Fund (IMF): *Global Financial Stability Report* 2004).

File Sharing: The process of copying files from one computer to another (Source PC Magazine, <http://www.pcmag.com/encyclopedia_term/0,2542,t=peer-to-peer+network&i=49056,00.asp>).

Gemius Audience: A research agency that provides a wide range of Internet research throughout Eastern Europe. (Source: <http://gemius.pl/ru/ru_about_company_en>).

GfK Ukraine: A market research company in Ukraine, a member of the worldwide GfK Group. (Source: http://www.gfk.ua/about_us/index.en.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." (Source: <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>>).

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

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

Internet-service providers (ISPs): (Also known as ‘providers’): 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 email. (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: ITU <<http://www.itu.int/ITU-D/ict>>).

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

Kyivstar: A mobile communications operator in Ukraine that offers mobile Internet. (Source: <<http://www.kyivstar.ua/en/about/>>).

Malicious Software: (Also known as ‘malware’.) Any software program 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>>).

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 –one 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>>).

The National Academy of Sciences (NAS): A state-supported research organization, enrolling academicians, corresponding members and foreign members. (Source: <<http://www.nas.gov.ua/en/Pages/default.aspx>>).

Oblast: The main territorial division of Ukraine, though smaller subdivisions of these exist. (Chapter XI ‘Territorial Structure of Ukraine’, Article 132, Constitution of Ukraine, <<http://www.rada.gov.ua/const/conengl.htm#r9>>).

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>>).

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>).

Personal computers: Self-contained computers designed to be used by a single individual. (Source: ITU (2009), <<http://www.itu.int/ITU-D/ict>>).

Piracy: The unauthorized duplication of goods protected by intellectual property law (e.g. copying software unlawfully) (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/readinessguide/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%2C2542%2Ct%3Dplatform&i%3D49362%2C00.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. (World Bank, 'Country At a Glance technical notes', <<http://go.worldbank.org/WG51XXDWB0>>).

Portal: 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 email, forums, search engines, and shopping malls. (Source: ITU Glossary 1- ITU (2009), 'Glossary, Acronyms and Abbreviations', <http://www.itu.int/ITU-D/ict/publications/wtdr_99/material/glossary.html>).

RuNet: The component of the Internet written in the Russian language.

Rural: Any area that cannot be classified as urban (See: Urban).

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

Social Network Site (SNS): 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. (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, email 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: ITU <<http://www.itu.int/ITU-D/cyb/cybersecurity/spam.html>>).

Special Status Cities: Cities whose administrations hold executive power, but are legally subordinate to the national government. Includes the capital city of Kyiv and the naval base of Sevastopol. (Chapter Chapter XV 'Transitional Provisions' of the Constitution of Ukraine. <<http://www.rada.gov.ua/const/conengl.htm#r15>>).

State Statistics Committee of Ukraine: A government agency that collects and analyses statistics in Ukraine. <<http://www.ukrstat.gov.ua/>>

TNS: Full service market research company, which conducts market, media and public opinion research <<http://www.tnsglobal.com/global/europe/ukraine/>>

UaNet: Term used by Ukrainian Internet users to refer to the national segment of the Internet.

Ukrainian Soviet Socialist Republic: Sovereign Soviet socialist state that has united with other Soviet Republics in the USSR from 1922 to 1991. (Source: 'The Constitution of the Union of Soviet Socialist Republics' (1924) 1977 Part 3 'The National-State Structure of the USSR, Chapter 9, Article 76).

Urban: Cities and urban-type localities, officially designated as such, usually according to the criteria of number of inhabitants and predominance of agricultural, or number of non-agricultural workers and their families. (Source: *UN Demographic Yearbook 2005* UNSD, <http://unstats.un.org/unsd/demographic/sconcern/densurb/definition/_ofpercentage20Urban.pdf>).

Youth/Young People: Males and females of ages 14-24 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>).