

PATCH-WORLD

Bulgarian National Research

Or

How do new technologies impact on family life: the role of ICT in relationships between parents and children, and between the family and the community?



PATCH-WORLD - PArents and CHildren Working, ORganizing and Learning together
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1. General framework of the research.

The PATCH-WORLD Bulgarian National Research is conducted by the partner organizations Center for Educational Initiatives (CEI) and Association Roditeli (AR). The research is focused on the role of ICT in the contemporary Bulgarian society and particularly the influence of ICT over the families' way of living and over the communicational patterns between the generations. Of course an overview of the general ICT penetration and development in the Bulgarian country is presented along with some major national researches and projects on ICT influence in general. The research is based on the following instruments:

- Review of the literature – reports, studies, papers;
- Review of the web – existing cross-national, national and regional researches, projects, initiatives, good practices, etc.;
- Review of the national sociological database and the annual bulletins and reports;
- 4 interviews with experts in the field of ICT researches and in the educational sphere with: Mrs.Fandakova – deputy mayor of Sofia city, Mrs. Bojinova – associated professor of Psychology in Bulgarian Academy of Science, Mr. Apostolov – coordinator and researcher in ARC Fund and Mr.Mihailov – coordinator of the Career Center of Sofia University
- Conducted questionnaire with 30 families from different Bulgarian regions and cities and with different educational and professional background – all of them having child or children aged between 11 and 18 and up years.
- Analysis of the questionnaires

2. Who is who in the field of ICT researches in Bulgaria.

The researches for the Bulgarian internet space and its users are made by two agencies - **Nielsen online** and **Gemius**. They measure the IT traffic and make users' profiles for business purposes mainly. Their data include only users at the territory of Bulgaria.

The Institute of Psychology of BAS (**Bulgarian Academy of Sciences**) is founded in 1973 as a separate institution of the Bulgarian Academy of Sciences. It is the largest national center for fundamental and applied psychological investigations now. The major fields of investigations include: psychology of personality and developmental psychology; social psychology; labor, organizational and applied psychology; cognitive psychology and assessment methods, as well as psychophysiology and neuropsychology. About 34 researches are working at the Institute of Psychology of BAS. The Institute of Psychology edit scientific journal "*Psychological Investigations*". Recent years some researches concerning mass media influence over behavior and ICT use of children and youths attracted the public attention.

Internet Rights Bulgaria Foundation (IRBF) is a non-profit organization founded in 2002. The organization aims to promote initiatives in the social and human rights sectors in Bulgaria. They encourage not-for-profit organizations and social movements working in these sectors to use the Internet for publicizing their activities and for networking with others; also work to defend and extend their communication rights. One of the general aims of IRBF is to educate and raise the ICT knowledge of social NGOs and provide them with information services though the Internet, as well as to promote the use of the Internet by Bulgarian social NGO and to assist them in building relations with European NGOs working in similar social areas and to reduce the digital

divide in Bulgaria. These aims are in line with the European Union Social Policy objectives of strengthening Civil Society and address a vital aspect that might otherwise be neglected - the important role digital communications now plays in the development of international civil society.

Gender Education, Research and Technologies (GERT) is a not-for profit Bulgarian organization, aiming to enhance gender equality and social and gender justice in all spheres of social life, including access to and benefit from new technologies. GERT works in a close partnership with IRBF since its establishment in the end of 2003. Both organizations are developing a Gender and ICT strategy for Bulgaria together, as well as work in organizing training courses for women in ICT. GERT are part of our **NGO-BG Project** for creation of a mini-website.

Delfin Foundation is a non-profit organization founded in 2002. Its primary interests are in the fields of the ethnical relations, the social welfare of the people with disabilities, the children as a vulnerable part of the society and the culture. They realize projects that concern ICT communication and ICT risks prevention.

ARC Fund is a leading Bulgarian NGO working in the areas of Information Society and innovation. The organization has a considerable track record of projects related to ICT's application in democracy, local government reform, NGO empowerment, technology transfer, among others.

Vitosha Research specializes in social and opinion research, and marketing surveys in a variety of areas, including information technologies (IT). Vitosha Research regularly monitors Internet usage in Bulgaria since 1998.

3. Researches and initiatives.

Nielsen and Gemius analysis of the sites attendance and the users' profile

It was only at the beginning of year 2008 that the Bulgarian Internet space started to be “measured” by impartial criteria. The goals are to see how popular are different type of sites and what is their auditorium (the profile of the users), measured by age, sex, education, social and financial standards. The researches of the web-auditorium in Bulgaria are conducted by two agencies - **Nielsen online** and **Gemius**. Some of the data for the users' preferences in the research of Nielsen online for April shows that the Company “Net Info BG” (**Net Info.BG**) is the Bulgarian online leader. Its most popular sites are the electronic mail site **abv.bg** and the video portal site **vbox7.com**. The online video portal offers over 1,5 million videos, most of which are with unsettled authorship. Approximately half of the auditorium of **vbox7.com** and of **YouTube** is youths under 24 years old.

Very popular is the site for acquaintance **aha.bg** (4th position in the Nielsen research). Over 60% of its subscribers are young people under age of 24 and they stay online 31 minutes average, which is absolute record for all the researched sites. The biggest quota of all the studying users is in the portal **teenproblem.net**.

Young people in European Bulgaria – research of BAS

After the start of the transition (1989) in the country, 3 representative for youth in Bulgaria sociological researches of the “Youth Barometer” type were launched in 1995, 2002 and 2007. The results of the first two researches were summed up in the book “Bulgarian Youth in the Conditions of the Transition” (Sofia, Committee for Youth and Sport, 1996) and “The new Young” (Sofia, “East-West”, 2005). The current research has obtained substantial and characteristic data which outline a new youth situation, especially regarding the new informational environment in the society.

The interiorizations of the geopolitical turn, the westernization of the country acquire a fundamental significance. English is being studied/spoken by four fifths of the youngest (15-18 years-old) and is becoming a generation characteristic. Access to computers, the mode of using the Internet and the knowledge of western languages create a generation gap in the sub-cultures of young and old.

The mobile telephone becomes a new factor that changes the communicational environment for the last 5 years. The research showed that despite of the expenses the largest numbers of mobile phones are in possession of young people between 18 and 30 years old. Almost 50% of the youngsters under age of 18 have mobiles with camera, which is 4 times more than the people over 50 years.

Over 50% (53 %) of the young people between 15 and 30 years work with computer and state that surf in Internet. There are also big differences between the age group of 15-18 olds over 50% of which enter the chat, and the group of 19-24 olds 30% of which chat. Some other indexes are:

Index	15 – 18 years old	19 – 24 years old
Skype communication	49%	37%
Use of SMS	41%	30%
Downloading files	42%	24%
Uploading files	26%	13%
Daily use of Internet	27%	27%

Bulgarian and Romanian youth's health and behavior: A multilevel approach for understanding health choices, practices and needs of youth – research of BAS

The project is funded by the National Science Fund of Bulgaria. The pilot study is conducted in February 2006 and involves students from Sofia city aged 11 – 15 years. Analysis is focused on items concerned with out-of-school activities – communication in the family and with peers, as well as engagement with sports, computer use (games, e-mails, internet, chatting) and TV watching.

Watching TV (video, DVD)

- The data shows that during the working days of the week 38,3% of the youths watch TV/DVD more than 4 hours per day. Girls tend to watch more TV (42,3%) than the boys (31,7).
- During the weekends 54,8% of the youths watch TV/DVD more than 4 hours per day. There are no significant gender differences.

Use of computer and Internet (chat, e-mails, surfing)

- During the working days of the week 34,5% of the youths use computer for 3 or more hours per day, there are no significant differences between boys and girls. The use tend to increase with the age and the difference is significant between 5th grade (26%) and 7th grade (36,8%), in 10th grade is 40,4%.
- During the weekends 31% of the youths use computer for 3 or more hours per day, the percentage of the boys is much higher (51,6%) than the girls' one (39,3%).

Computer games

- During the working days of the week 20,1% of the youths play computer games more than 3 hours per day, there are significant gender difference – the boys play twice more than the girls (respectively 41,1% and 20,2%).
- During the weekends 36,5% of the youths play computer games more than 3 hours per day, and the difference between boys and girls is even bigger – 61,9% opposite to 19,7%. It can be observed significant decrease of playing computer games activity in 9th grade.

Communication with friends and free time activities

- 65,5% of the youths enter Internet for chat with their friends after school;
- Playing games (cards, chess, computer games, etc.) – 54,8% of the youths; there are differences between the boys 73,1% of which like to play, and 44,6% of the girls play.

Family activities

- Youths state that the most common activities they do together with their family are:
 - eating together – 87,1%;
 - watching TV/DVD/video – 68,9%;
 - conversations – 55,6%

EUROPEAN RESEARCH ON CULTURAL, CONTEXTUAL AND RISK ISSUES IN CHILDREN'S SAFE USE OF THE INTERNET AND NEW MEDIA (2006-2009)

EU Kids Online Project
Report EU Kids Online

As the Internet and new online technologies become embedded in everyday life, pressing questions arise regarding their social consequences. Children, young people and their families tend to be in the vanguard of new media adoption, benefiting from early take-up of new opportunities afforded by the Internet, mobile and broadband content, online games and peer-to-peer technologies. However, they also encounter a range of risky or negative experiences for which they may be unprepared. These risks, the everyday contexts in which they occur, and the ways they are being addressed, are all subject to continual change.

The three-year research project attempts to compare the cultural, contextual and risk issues of children's safe use of the internet and new communication technologies. The participating countries are Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, France, Germany, Greece, Iceland, Norway, Poland, Portugal, Slovenia, Spain, Sweden, The Netherlands and the United Kingdom. The Bulgarian partners are **IRBF** and **GERT**.

The project, sponsored by the EC Safer Internet Plus Programme and the London School of Economics and Political Science, is a comparative research study that attempts at providing guidelines on how to make the Internet safer space for young children and teenagers. An emphasis must be put on researching young children as they are most unprotected when surfing online and so far not enough data has been accumulated to outline the main risk they experience. In order to raise awareness of the problem and to promote practical actions that will lead to safer internet for children, the participants discussed and issued a few recommendations to policy-makers, internet providers parents, teachers. Those include:

- ▶ to increase the usage of filters in private PCs and in clubs
- ▶ to educate parents and teachers of the possible risks that the children face
- ▶ to urge for adoption of appropriate legislative measures in the respective countries

All participants committed to enhance efforts to disseminate the project's findings in the public space and specifically to popularize it among academic and political circles as well as among manufacturers and producers of software and hardware. For those purposes, the project's banner already appears on the international web page of **UNICEF** and some members have developed national web sites with the support of public agencies. The Bulgarian partners, IRBF and GERT, have added additional information about the project on their web page and printed- out fliers that are available upon request

National research: Strategic Use of the ICTs by Women, Working in the Civil Society Sector in Bulgaria - IRBF

Report ICT and women

In the last ten years, the new information and communication technologies (ICTs) have become one of the main means and sources for exchange of information, also a mechanism for creating partnership networks among the noncommercial not-for-profit organizations (NGOs) as well in Bulgaria, as worldwide. The active involvement and the equal participation of women in the ideological development and everyday work of the civil society sector in Bulgaria is an exceptionally important phenomenon in the whole country. It is out of doubt the fact as much in national as in international aspect the fact that a considerable part of the NGOs, active in the area of education, culture, social activities, human rights protection and environmental issues are created, developed and managed mainly by women.

In this context, the team of **Internet Rights Bulgaria Foundation** (IRBF) believes that raising the capacity for access and strategic use of ICTs by women, working in the civil society sector in Bulgaria can contribute to increasing of their potential in personal and professional aspects, for the strategic development of the initiatives of the NGOs, as well as to support and stimulate the cooperation and sustainable development of the civil society sector as a whole.

In relation to this, in the period between November 2004 and June 2005, IRBF, as **Women's Informaiton Technologies Transfer** Focal Point in Bulgaria, carried out a national research called: **Strategic use of ICTs by women, working in the civil society sector in Bulgaria.**

Some of the General Results

- ▀ The participants in the research are greatly motivated and convinced in the need to use ICTs in the everyday work. The majority of them, 97,4 % use ICTs every day and all the time in their work, while 2,6% use it only a few times per month. At the same time, just half of them can use computer at home (56,4%). For the majority of the women-respondents, the computer use is opportunity from work (94,9%), while comparatively small part of them use Internet centers for this aim (12,8%). Women from the civil society area use the Internet mostly to work and to fulfill their professional tasks.
- ▀ Internet is used by most of the NGOs, involved in the research, and it is a main mean for communication, for search and find of information for support and funding of new projects and initiatives, which helps them to receive information on time, as well as direct access to calls for funding in European and international aspect.
- ▀ Women from the NGO field are purposeful and very independent in their studies for gaining new knowledge and skills in the ICTs area. 94,9% of the respondents have shown willingness to acquire additional skills in the area of ICTs, as well as 82,2% need to get specific skills, in order to be able to update the information on their websites.
- ▀ Free Software is still not very popular among the Bulgarian NGOs: only 38,5% state they use programs based on Free Software, whereas 25,6% of them have replied they do not know what type of software they use. A big part of their respondents (61,5%), answer positively to the question whether they pay for the software they use, which in most cases mean a serious load of

the budget of these organizations, as well as availability of technical limits with updating information.

Research „Use of the ICT by women at age between 35 and 55”-IRBF

During the period April – June 2007 **Internet Rights Bulgaria Foundation** conducted a research about the use of ICT by women at age between 35 and 55 years. It was under the commission of **Znanie Association** during the project Ciao!Women – Communication via IT for Adults On-line. Its aim is to identify the concrete needs and specific features of the target group in order to create appropriate methodologies for ICT long-life learning by women in the EU.

Summarized data:

- In almost 90% of the cases the women have “met with the computer” for first time due to changes at their working positions – induction of the ICT in the work-style.
- Most of them have reacted harsh at this circumstance and it is the necessity and the obligatory conditions for the work that make them use the computers and ICT in general.
- Most of the women use the computers for specific purpose – mainly for work, for correspondence and for preparing documents. Only 17% use them for “personal needs”. The research discovered that in general women between 35 and 55 use the computers and ICT mostly for working purpose and due to lack of time very rarely for fun, games, experimenting with PC programs or learning ICT.
- The most appropriate computer education for women over 40 years appears to be an organized course. Most of the women under 40 years say that they are self-practicing and have learnt PC and ICT through the try-out method.
- The use of ICT terminology is at low level due to lack of systematic training. For instance the word “Web” is exclusively associated with Internet only. Respectively ICT is associated with the computer only. The lack of knowledge leads to discomfort when using the PC and embarrassment when communicating with the “ICT literate” people. Additional obstacle for the women in their work with ICT is the low level of knowing English.
- The research discovered the fact that the women-participants with disabilities are very happy and satisfied that they have learnt to work with PC so this way they say they can help other people in needs. These women state that they feel helpful and their life is much more purposeful and worth to live. So they are eager to learn more about the ICT possibilities.
- Women in relation with ICT have very inadequate image in the media. Media as a rule launch some stereotypes for ‘women technologies’ such as the white technics: irons, stoves, washing machines, mobile telephones; and ‘men technologies’ – TV, audio and video players, PC.

Delfin Foundation initiatives

Delfin Foundation is realizing an important project – creation of free software program for parental control of the child’s activities in the Internet. There is a great need for such a program. On one hand there are many sites propagating violence and ethnical hatred or showing pornographic content. On the other hand the school plays a smaller role in the children’s lives. Such programs exist but they are either paid, difficult to use or with much less options. Our program will be created for the Microsoft Windows platform. This is sufficient because 98 % of the children are using this operating system. Two languages will be implemented – Bulgarian and English. Here are some of the options that the program will give to the parents for controlling the Internet activities: block the chat; block the forums; the parents will be able to include url addresses of sites they don’t want their children to see; time periods can be set when the Internet connection is available; keyboard logger will be implemented and so on.

Another important initiative of Delfin Foundation is the development of an Internet site for literary communication of people with disabilities – <http://www.alteraforum.net>. The idea is a continuation of a project realized by the foundation about literary education of handicap authors. The people with disabilities on one hand do not have many possibilities to publish their works but on the other have the desire to share them. On the site the members can upload own works, write opinions about the works of others, communicate with one another. This is a modern site which gives a lot of functionality to its users; it is easy to use and is specially designed for usage by blind people. Even though the site was developed at the end of 2006 it is already quite popular – has more than 30 000 visits. This shows the importance of the ICT opportunities for the disabled people and the way for their adaptation and integration in the modern digitalized society.

4. Applied Research and Communications Fund – Researches, Open source advocacy and Safer internet

E-Bulgaria reports

In September 2006 ARC Fund released its latest *e -Bulgaria 2006* report which analyzed the progress the country had made in comparison with previous years in terms of ICT infrastructure deployment and penetration and use of internet and ICT-related services in households, enterprises, schools, universities and government institutions. The report presented a wealth of empirical and qualitative data, synthetic indicators, trend analyses and projections, policy options and recommendations for the future development of information society in the country.

This report was the fourth in a series of **e-readiness analyses** which ARC Fund had published since an *ICT Infrastructure and e-Readiness Report* published in 2002 , *e-Bulgaria 2004 Report* released in October 2004 , and *e-Bulgaria 2005 Report* released in July 2005.

The 2005 edition shows the following data:

- The Bulgarian internet population now reaches 1 800 000 people who account for 24% of the country's population. The share of internet users has increased by some 50% since last year and the trend continues, fueled by ISPs who now offer faster and cheaper internet access. 2005 marks the shift from dial-up connections (2/3 of connections in 2004) to high-speed LANs and cable networks (2/3 of connections in 2005).
- A significant event in Bulgarian internet in 2005 is the massive expansion of ADSL connections. The number of ADSL connections jumped from 10 000 in June 2004 to around 170 000 connections in the middle of year 2005 or 10% of the current internet connections. Currently the only ADSL provider is Bulgaria Telecom (<http://www.btc.bg/en/>).
- Wireless internet is still going nowhere. The main reasons for that are lower quality of the service, compared to other types of access and also the small number of laptops. Other concerns are control of access to those connections and security. Wireless hotspots are slowly emerging in hotels and business centers. Other places you can find wireless hotspots include McDonalds and in some petrol stations.
- Main places for internet access are at home (40%) and at work (28%). Internet clubs and internet cafes come next in third place with 27%.
- Bulgarian businesses are using internet more and more actively, but still falls behind their European counterparts. In terms of connectivity it is 10% ahead with nearly 75% of all businesses having an internet connection. The turning point is the way internet is used in Bulgaria and in Western Europe. In 2004, almost 30% of Bulgarian companies had a website, compared to 44% of Western European companies having an online presence in 2003.

The 2006 edition offered some conclusions about the progress which Bulgaria had made and the gaps that remained to be addressed in terms of **e-access**, **e-society**, **e-education**, **e-business**, **e-government** and **e-policy**:

- The share of internet users in the country had reached 26 % of the population aged 15 and over. The projections suggested that by 2007 some 34% of the population would be using internet;
- The largest point of divide witnessed by the previous report *e-Bulgaria 2005* was in the category “access to PCs and internet at schools”. The report noted that the government’s large-scale investment in ICTs in schools in 2005-2006 had practically leveled this divide but other important issues remained unresolved – e.g. the need for training teachers in specific regions in this country;
- A key challenge for policy makers remained the digital divide among disadvantaged groups and ethnic minorities. The data suggested that internet penetration rates among ethnic groups were 3 to 5 times lower than the average figures for the country;
- Penetration of new ICTs in businesses seemed to be approaching a level of saturation. In 2006 90% of businesses had at least one computer; 75-80% had access to internet allowing around 27% of employees to have access to internet at their workplaces. By end of 2006 24% of enterprises had web-sites. 11% of them provided opportunities for online orders. 21% of all enterprises had digital signatures in 2006, which were used mainly to optimize the communications with government institutions;
- E-government could be a serious multiplier in information society development, yet the report shows a rather weak political commitment to implement e-government services in Bulgaria, disturbing inefficiencies in IT procurement, and little horizontal coordination among the various government agencies.

The main purpose of ARC Fund’s *e-Bulgaria* reports is to assist the main stakeholders in the country’s ICT community (policy makers, international donor agencies, private sector organizations and others) in formulating adequate policies which take advantage of ICTs as a powerful enabler of economic growth and competitiveness. It also serves as an advocacy tool in sensitizing local politicians and policy-makers on the importance of ICT for economic and social development, and a promotional tool in publicizing Bulgaria's performance and potential with respect to ICTs before international donors and investors.

Open source advocacy

In continuation of the efforts started already during 2003, ARC Fund continued its advocacy initiatives to promote the popularity and use of Free/Libre and Open Source software as a viable alternative to proprietary software.

As part of these awareness efforts, ARC Fund recruited the support of two young journalists, bloggers and passionate FLOSS supporters to draft an *Open Book for Free/Libre and Open Source Software*. The book, published by ARC Fund, provides useful background information on the open source ideology and history, and elucidates some basic terminology related to it. The book is called an “**open**” **book** because it emulates the core principles of open source ideology – openness and freedom. It is published under creative commons license and is the groundwork for a continued effort of accumulating information about open source in Bulgaria and may well be the first version of a future interactive encyclopedia.

The book is targeted at diverse reading audiences, including business people, software developers or curious readers. The general reader will learn about the advantages, reliability and the various applications of the open source software.

Safer Internet

This theme became central focus in ARC Fund's information society portfolio during the second half of 2005 with the launch of a national **Safer Internet Hotline** for reporting harmful and illegal online content. The project, supported in part through the European Commission's **Safer Internet Program**, is aimed at promoting a safer use of Internet and mobile technologies primarily by Bulgarian children and young teenagers. The project is mostly concerned with online content that contains child pornography, obscene and harmful to children content, racist and xenophobic content, drugs and virtual violence against minors. The national **Safer Internet hotline**, coordinated by ARC Fund, helps members of the public report such content, potentially harmful for children. The reports are then forwarded to law-enforcement agencies which can trace the origin of such content. The project combines also information and communications activities targeting kids (particularly in schools), education of parents and teachers.

Some important developments took place in 2006: a **Public Council on Safer Internet in Bulgaria** was established in April 2006 at the initiative of ARC Fund, which also acts as secretariat to the Council. The purpose of this consultative body is to oversee the hotline's operation and ensure that it meets the interests of key stakeholder groups in government, ICT industry and civil society. The Council brings together a number of public bodies, private and civic organizations involved in ICT and information society development concerned with making the Internet sufficiently safe for minors.

Project "Children in Virtual and Real Violence – Prevention by Discourse and Education"

The project Children in Virtual and Real Violence - Prevention by Discourse and Education is the latest initiative of ARC Fund in partnership with Association Roditeli. Its goal is to raise awareness through education among school children about similarities and differences between virtuality and reality, dangers in Internet, rules for safer Internet use, netiquette and thus empowering them to use more efficiently ICT for lifetime learning. It aims at helping children to better perceive, understand, give personal meaning and protect themselves from risks and violence in and on the border of virtual space and reality. Prevention and conscious self-protection will be achieved by the development and facilitation of a person-centered experiential learning and discussion course at the place of formal education - middle and high schools. The involvement of related communities of parents and school administrations in discussions and competency building will be complementary and supportive to the course. The project will also attain higher awareness among broad social audience and influence on public policy. The project will produce reliable data for research and verification of the factors underlying the behavior of children in internet-related risk, with substantiated implications for policy actions.

The grounds of the project lay in the fact that the rapidly growing Internet penetration affects even more the younger population and among them - the group of Internet users under 18. According to the **National Statistics Institute** the internet users between 16-24 years of age are 33.7% of all users.

An opinion poll study by the National Centre for Opinion Poll Studies (NCIOM) made in April 2006 among 800 children between 12 and 17 years in 5 cities in the country showed how great the risks are for Bulgarian children who are in their majority not aware of the dangers and rules of safe use of Internet (http://web112.net/ppt/nciom_presentation.ppt). According to that study:

- over 60% of the respondents have PC at home;
- over 63% are in Internet every day;

- 83 % put at first place communicating with other people as main use of Internet;
- 38% have met really a person they first got to know online;
- 21% say that on meeting a person he/she proved to be older than presented him/herself online;
- 7.6% say that obviously that person's intentions were not good;
- 12.2% say that in the chat somebody insisted to talk to them against their will;
- 52.6 % say in such cases the person wanted to talk about sex;
- 18.7 % received from the person pornographic material;
- 69.2% said the person insisted on meeting them.

In February 2007, an extremely violent and indecent computer game popular among children all over the country became known to the media and the law-enforcement agencies took fast measures to ban the game. The game was about beating and killing unknown people in the street, raping school teachers, selling drugs, etc. and it was widely played in Internet clubs. There were also several cases when law enforcement agencies arrested pedophiles who found their victims in the Internet clubs or via Internet.

At the same time, the Ministry of Education alarmed the public opinion by informing that cases of violence at schools are growing by the day. Children become victims of other children. In the last 2 years there were at least 4 widely publicized crimes when school children committed murders. Psychologists differ in opinion about how violent games and content affect a child's psyche but all of them agree that in cases of more vulnerable and emotionally disturbed children they could be one of the factors pushing the child to commit a crime.

On the other hand, most of the children do not ask and receive advice from their parents about Internet use. In fact, many parents are shy to speak about Internet with their children as they feel not competent enough. Thus the children are left alone and are more vulnerable to virtual-turned-real abuse.

Hotline Operation

The Bulgarian Safer Internet hotline has been officially operational since **May 6, 2006**. It can be accessed online at [http://web 112.net](http://web112.net). The Hotline provides a tool through which Bulgarian Internet users may report incidences of illegal online content (mostly pornographic material implicating, or targeting children and minors). The hotline operators then deal with the reports by passing them on to the appropriate authorities – Internet Service Providers, police, or fellow hotlines in other countries. The ultimate goal is to help reduce the flow of illegal content and contribute to the effective protection of Internet users.

The hotline's work is governed by a set of **Operational Rule and Procedures** which were endorsed by the Public Council. Procedures were specifically designed to make the hotline's operation effective and transparent. Reporting individuals can remain fully anonymous, if they wish, but reports are certain to reach the competent authorities (i.e. the hotline has established a dedicated channel for communication with the police authorities) and be followed-up by relevant legal action.

More than **70 reports** had been posted to the hotline until the end of 2006. Most of them concerned websites containing child pornography and prostitution, adult content or gambling sites. The hotline received also reports about racism, drugs promotion and selling.

Despite its fairly short operation so far the Bulgarian hotline has proved itself capable of assisting the national bodies for countering the dissemination of illegal and harmful content in Bulgarian web-space that could put minors at risk. To make the hotline's operation more effective ARC Fund undertook a number of awareness-raising and visibility enhancement activities. A **Safer Internet Information Kit** for children and parents was printed and distributed by the institutional members of the Public Council and some private companies. A **national round-table** on Safer Internet was held, the Hotline was presented at several public events organized by other organizations and institutions.

In October 2006 the Bulgarian hotline became member of the **International Association of Internet Hotline Operators** (INHOPE), a gathering of over 30 hotline operators in Europe and worldwide. INHOPE supports and enhances the performance of its members around the world, by ensuring that swift action is taken in responding to reports of illegal content, and thus making the internet a safer place.

From January 30 till February 6, 2007, the Hotline team initiated an online competition among school children all over the country on the rules for Safer Internet. An online test with 25 situational questions with 4 possible answers each was made available in Internet and publicized through the media. 2,056 children took the test but only 166 of them could point at the right behavior in all 25 risky situations described in the online test.

For final, according to the newest **International report on ICT 2007 – 2008**, announced at the World Economic Forum in Geneva 2008, Bulgaria ranks 68 by the index Web development. The research involves 127 countries and became the most authoritative international source of information concerning the influence of ICT upon the national economics. The first place for web developed country is for Denmark, followed by Sweden and Switzerland. The USA ranks the 4th position, among the “Top 10” is Korea (9th position).

5. Analysis of the questionnaires.

Questionnaire - English

Questionnaire data

In June 2008 investigations were conducted with 30 Bulgarian families – 50% of them from Sofia, 33% - from regional cities and 17% from smaller places (towns and villages). The questionnaire consisted of 11 questions with optional answers and 4 free questions which suggest the personal opinion and attitude of the members of the family concerning the ICT influence over their life and inner communication. In the investigation we emphasized on the use of computer as in our opinion it best shows the attitude of the whole Bulgarian society toward ICT.

The first question asks to enumerate the different ICT possession of the family. All of the people with no exception have mobile telephones and computers at home, only one family doesn't have Internet connection, and approximately 3/4 of them have MP3 and DVD players.

In 2004 a vast sociological research in Bulgaria measured the development of the ICT use in the households. The fastest penetration of ICT was for the mobile telephone – 43% of the households said they have at least one. Compared to year 2000 this is 4 times growth. In 2004 the DVD players, computers and home internet connection were still slightly spread through the households. For comparison, in 2007 a sociological research for the young people' usage of ICT shows that 85% of them have mobile telephones and almost 50% - computer at home.

In the last 2 years in Bulgaria we witness a massive ICT penetration in the households and in a way the answers of the 30 investigated families are 'representative' for that. Nowadays almost all well-paid families have at home PC, Internet and mobile telephones; the usage of different players (mp3, DVD) marks fast growth.

The second question is about the most common place for using PC. The answers showed that 90% of the people use PC at home and 47% - from their work place. Practically nobody uses PC from Internet clubs or friends/relatives any more.

The third question asks the parents about what they usually use PC and Internet for - 80% say for work, 50% - for entertainment, 13% - for shopping, 17% - paying bills, 93% - searching information, 73% - for communication through e-mail, chats, forums and video-connection.

The answers of the 4th question – „What do your children mostly use the Internet for?“ – show that over 80% of the children use PC for communication and entertainment, 60% are searching for information and a bit over 1/3 of them use the PC for educational purposes.

The fifth question aimed to check if parents and children use PC together. An interesting fact is, that only 17% of the parents use computer together with the children daily. The rest: 14% - 2-3 times a week and 67% say that use it together very rare or in practice everybody uses the PC for their own.

As we can see from the above mentioned answers, rare or often, parents use PC together with their children mostly for games and entertainment (60%), which is understandable as this activity addresses the main children needs. It is not a surprise that over 50% of the parents try using the PC together with their children always with educational element. Also more than 1/3 of the parents and children use the PC together for communication with family friends and relatives.

It is very interesting to compare the parents' and the children' skills for using PC. From the answers we can see that most of the parents state that almost there is no difference between their own skills and their children' skills. 42-43% of them say that they and their children have skills on high level. Half of the people say their and their children' skills are at basic or at advanced level, and only 1% say that they don't come to contact with the computer.

The aim of the 9th question „Do you know what kind of computer games your children play and how often they do so?” was to juxtapose the answers with those of the 4th question – “What do your children mostly use the Internet for?” So it is almost the same % of parents (80%), previously stated that their children use the PC for games and entertainment, that now say that their children play PC games several hours almost every day.

The next question: „How does your family use ICT as a medium of education?” is closely related to the 6th question, where 60% of the answers revealed that parents and children use PC together for educational purposes. The answers of the 10th question show that parents draw a clear division of the possible different PC use. One third of the parents think that educational games and movies could be used for educational purposes. Relatively low % of parents (23%) orientate their children toward the possibility of online-based education (for instance online courses, correspondence with institutions); over 50% of the parents think that ICT can be used for preparation of the homework. Almost all of the participants think that the main educational function of the PC is the possibility of information searching through Internet.

At the question what knowledge and experience do parents and their children have in relation to the virtual risks and dangers 70% of them pointed the “ Access to illegal or harmful information”, mainly meaning the wide-spread pornographic sites. 23% of the participants say that never they or their children have come into dangerous sites or information.

The answers of the last 4 question, which suggest the participants' personal opinion and attitude toward the ICT influence over their family life, have clearly show some tendencies.

Concerning the question how the parents observe and track their children's activities on the Internet and their cell phones, half of the participants say that secretly check the Internet history option or even check the cell phones call history extracts. Respectively the % of the parents who state to trust their children or that talk and discuss together the Internet risks, is very low – only 17%

It is also clear common opinion that the main advantages of ICT are the access to information (77%) and the virtual communication with relatives, friends and even not well-known people (57%). Not many of the parents think that the preparation for school and for future professional realization is advantage.

Most of the participants think that the use of ICT harms in general the family life – the main reasons they point are the 'addiction' and the excessive use of ICT, especially in front the PC. Also 1/3 of the parents think that ICT impede the communication in the family and between the generations.

6. Literature.

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