

WCPCG-2011

I am online: What adolescents think about internet and internet use

R. Firat Sibal^{a*}, Yildiz Karakaya^b, Neslihan Hergul^c

^aHacettepe University, Department of Child Development, Ankara 06100 Turkey

^bHacettepe University, Department of Child Development, Ankara 06100 Turkey

^cHacettepe University, Department of Child Development, Ankara 06100 Turkey

Abstract

There remains a dearth of research on what youth are doing when they are online and what they think about internet. We contacted 450 adolescents from public high schools and applied a questionnaire to assess their Internet use as well as their opinions about internet. Results showed that boys are more into internet use. According to the self reports, boys feel more addicted to internet than girls as they feel uncomfortable when they are not online. Similarly, more boys than girls skip their homework due to long log-ins. According to the girls internet is mostly a waste of time and causes addiction, and therefore not always helpful. The changes in the computer use purposes of children should be taken seriously. Getting more into online chatting and free surfing with increased amounts of daily internet use might cause social isolation as well as internet addiction.

© 2011 Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](#).

Selection and/or peer-review under responsibility of the 2nd World Conference on Psychology, Counselling and Guidance.

Keywords: Internet, internet addiction, computer use, adolescents

1. Introduction

The increasing pervasiveness of the Internet in the lives of adolescents is by now well established (Sibal & Bayhan, 2010; Ortega-Tudela & Gomez-Ariza, 2006; Kadijevich, 2000), but there remains a dearth of research on what exactly youth are doing when they are online, with whom, and why—and, what they exactly think about Internet. Therefore; the present research seeks to fill the empirical gap with findings from highschool adolescents. In particular, this paper examines the extent to which the internet experiences of participants in the study reflect the developmental significance of adolescent Internet use.

Among numerous characterizations of young people's uses of online media, three captured the attention of the popular media, research, and policy communities alike: first, the proposition that gender predicts usage amount and type; second, that Internet use causes social isolation and depression, especially for teens; and third, that adolescents use the Internet for anonymous identity experimentation. In this study the authors will elaborate on the basis for these propositions, then discuss why further investigation was needed in 2011.

Gender differences in adolescents' use of earlier forms of electronic media such as networked computers and video games had been an issue of interest and numerous studies had documented that boys spend more time than girls online (Bayhan, Sibal & Karaaslan, 2009; Colley & Comber, 2003). Even if girls and boys spent equivalent amounts of time online, research suggested that they might display gender-stereotypical preferences in their choices of Internet activity, i.e., boys might be more likely to spend their time online alone, playing violent

* R. Firat Sibal. Tel.: +903123051526; fax: +903123053053.

E-mail address: fsibal@hacettepe.edu.tr.

online games, while girls might be more likely to spend their time online in social interaction (Newell & Gregor, 2000; Mumtaz, 2001; Kelly, 2003).

Turow (1999) reported that parents are concerned that going online too often may lead their children to become isolated from other people. Kraut et al., (2002) echoed Turow's findings. They indicated that Internet use was associated with small but significant decreases in well-being and local social network size over 2 years. To explain their finding, which held mainly (if not only) for their adolescent participants, Kraut et al. speculated that adolescents' heavy usage of the Internet for online communication led them to forsake critical bonds with local friends and family for weak relations with strangers. This assumption was critical to the popular conception of the Internet's depressing and isolating impact on youth, but may be outdated, given the rapid growth of both the online community and online communication applications. As more youth log on to the Internet, we can expect that more of their friends do too. Communication with close others is now also facilitated by applications such as instant messaging (IM), which allows users to know when friends are online and to engage in an unlimited number of real-time, private, dyadic chats.

2. Method

Participants

Participants of the study were 450 children from 6 different schools, serving around the metropolitan area of Ankara, the capital city of Turkey. Sample included 225 boys and 225 girls between 9th to 12th classes with a mean age of 16.45 ($s=1.44$) from schools in 6 neighbourhoods representing 3 different socio-economic levels. Eligibility criterion for participation in the study was not having a disability. Eligible students whose parents agreed and signed the informed consent forms were included in the study. Ethical approval for the study was given by Ministry of Education research ethics committee.

Instruments

Demographic information form: Children were asked to fill in a form to obtain demographic information. The form included questions about family structure, parent education level, neighbourhood, and socio-economic status.

Internet attitudes questionnaire: The authors developed a questionnaire based on the computer use subscale of the Turkish version of Computer Attitudes Questionnaire (CAQ; Bayhan & Sipal, 2008). The Internet Attitudes Questionnaire aimed to assess the internet use purposes of the adolescents (i.e., I go online just for fun, I go online for research quite a lot because that is the easiest way of doing my school projects) as well as their opinions about the internet (i.e., I think internet is such a waste of time, I think internet is addictive but I can not help going online, I feel less lonely when I am online) and consists of 25 items. Internal consistency of the questionnaire yielded $r=0.81$.

Procedure

The questionnaire was administered under the supervision of teachers in school time. Children were first informed about the purpose of the study. Confidentiality and the voluntary nature of the participation were explained. Then the research team introduced the children with the questionnaire. Even though participation was entirely voluntary, all the children agreed to participate. Questionnaire administration took 25-30 minutes. The researchers distributed the demographic information form and after collecting all completed forms, the questionnaire was introduced. Researchers were ready to answer children's questions if there were any as well as encouraging them to completely fill in the questionnaire completely for avoiding data loss.

3. Results

Table 1. Demographics of the participants in the study

	N	%
<i>Gender</i>		
Male	225	50
Female	225	50
<i>Age</i>		

15	101	22.4
16	141	31.3
17	122	27.1
18	86	19.1
<i>Mother's Education</i>		
Primary	257	57.1
Highschool	118	26.2
University	60	13.3
<i>Father's education</i>		
Primary	177	39.4
Highschool	166	36.9
University	102	22.7

Table 2. Weekly Internet use, internet access and purpose internet use of the adolescents in the study

	N	%	F
Private internet access	340	75.6	
<i>Time spent online</i>			
0-10 hours	275	61.4	
10-20 hours	88	19.6	
20-30 hours	41	9.2	
30 and more hours	44	9.8	
<i>Internet use purpose</i>			
Study	383	85.1	5.83*
Gaming	272	60.4	.20
Networking	193	42.9	.90
Fun	297	66	6.13*
Chat	238	52.9	.56
E-mail	252	56	1.23

Note. * Significant at $p < .05$ level

Demographic data of the participants can be seen in Table 1. Table 2 shows the participants' weekly internet use, internet access and internet use purposes. According to the results, majority of the adolescents reported that they have a private internet connection. Besides, a large proportion of the participants reported that they go online not more than 10 hours a week whereas around 20% of them go online between 20 hours and more. Independent samples t test revealed that boys go online more often than girls (Boys; $m=3.47$, Girls; $m=2.05$, $t=5.76$) Majority of the participants reported that they go online for research and studying. Further analysis on this findings revealed that more girls than boys go online for research purposes ($F=5.83$). Additionally, more girls than boys reported that they go online just for fun ($F=6.13$). Eventhough the results show that online gaming and chat is also more popular than networking and e-mailing among the participants, there were no significant gender differences.

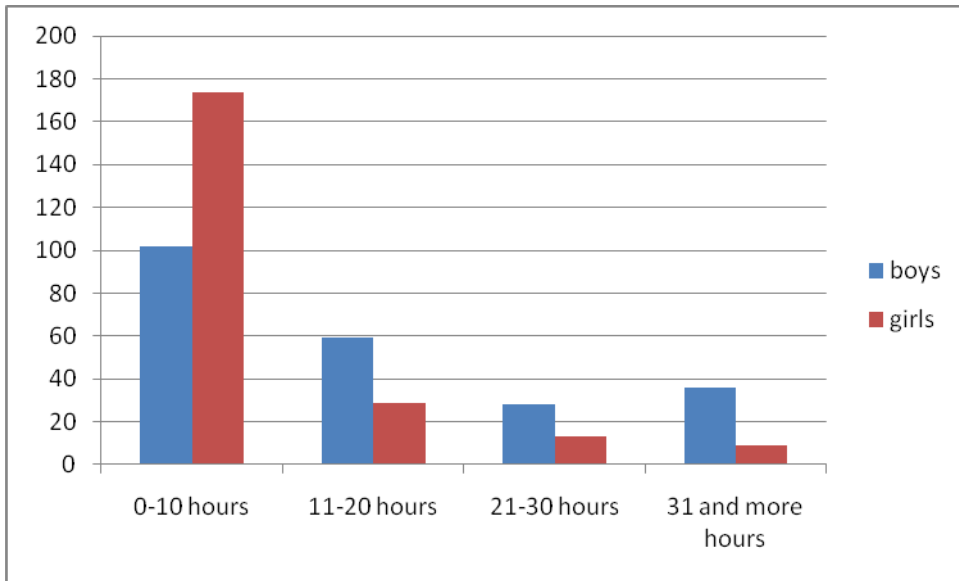


Figure 1. Number of participants in the study according to their weekly internet use amount

Figure 1 shows the number of participants according to their weekly internet use amounts. As more girls than boys go online up to 10 hours a week, boys go online more often than girls. 16% of the boys reported that they go online more than 31 hours a week and 13% of the boys go online between 20 to 30 hours a week.

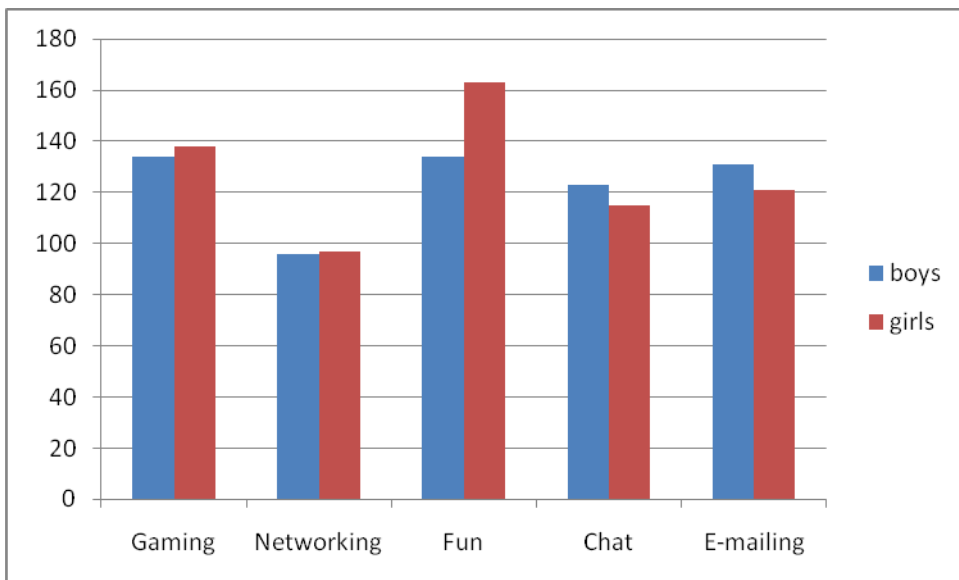


Figure 2. Number of participants according to their internet use purposes

Number of participants in the study according to their internet use purposes can be seen in Figure 2. Majority of the girls reported that they go online just for fun. More boys than girls use internet for e-mailing and chatting. There is a very little difference between genders regarding to internet use for networking. Interestingly, for our sample, girls were found to be more into online gaming than boys but this finding remained insignificant statistically.

Table 3. Thoughts of the participants about internet

	N	%	F
I can not help going online	158	35.1	1.12
Internet is a waste of time	215	47.8	12.93*
I skip my homeworks because of going online	211	46.9	12.88
I forget my problems when I am online	219	48.7	3.01
I think internet is addictive	276	61.3	6.21*
I feel less lonely when I am online	174	38.7	7.01
I had many friends through internet	176	39.1	6.68*
I feel uncomfortable when I do not go online	234	52	5.88*
I think all the information on internet is true	99	22	.49

Note. * Significant at $p < .05$ level

Thoughts of the participants about internet is presented in Table 3. Results show that 47.8% of the adolescents in the study think that internet is a waste of time and more than half of them state that internet is addictive. Further analysis regarding to these findings showed that, gender differences are significant as girls think that internet is a waste of time, whereas boys report that they think internet is addictive. Another important finding is about internet addiction. 52% of the participants stated that they feel uncomfortable when they are not online and this finding showed significant gender differences in favor of boys. Boys feel more addictive to internet than girls.

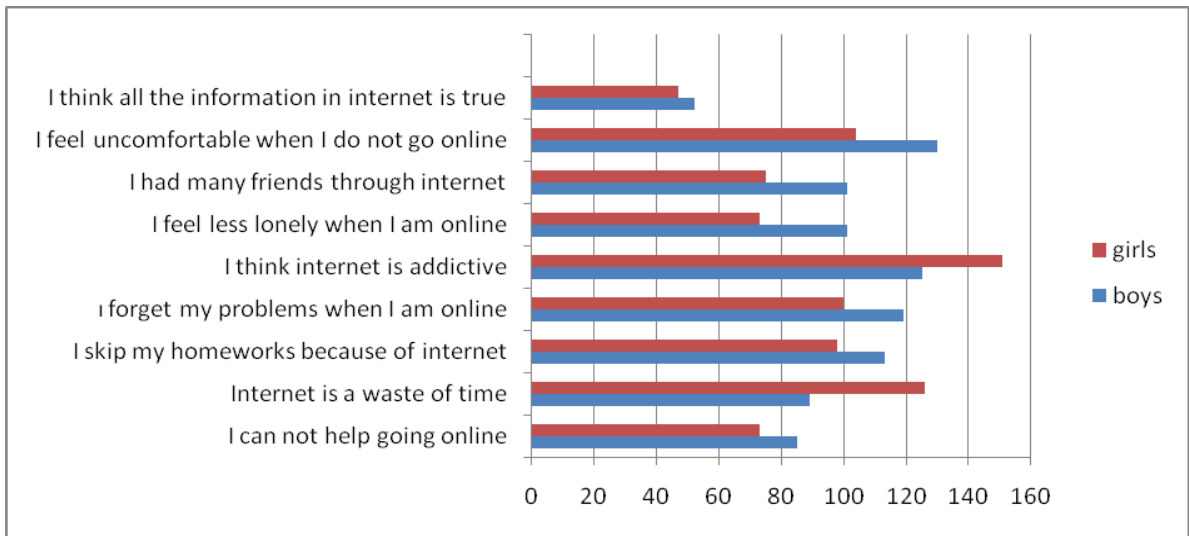


Figure 3. Number of participants in the study according to their thoughts about internet and internet use

What adolescents in the study think about internet and internet use can be seen in Figure 3. More boys than girls reported that they can not help going online even though internet over use is problematic. Girls seem to more

negative towards internet as majority of them reported that internet is a waste of time as well as addictive. Additionally, boys in the study presented addictive behaviors such as they feel uncomfortable when they are offline (52%), they skip their homeworks because of free surfing through internet (48%) and they can not help going online (37%).

4. Discussion

In a critique of extant research on youth Internet use, Livingstone (2003, p. 13) argued that research on children and the Internet must go beyond access to examine the nature of Internet use—its nature and quality, social conditions, cultural practices and personal meanings. In particular, she noted that research that combines qualitative and quantitative data is sorely needed, but rarely published. The present research was aimed at filling this need, by collecting data on usage and adjustment from a school-based sample of youth.

Research on computer and internet use of teenagers discusses the impact of numerous factors. Particularly gender has been at the top of the interest and has been studied in all dimensions since decades (i.e. Collis, 1985; Durndell & Thomson, 1997). Common finding of all these studies is the clear gap between genders in all aspects of computer and internet use. For example; Colley and Comber (2003) in their study reported girls rate themselves less favourably than their male peers in terms of reactions to technology. Similarly Mumtaz (2001) in her study found that boys are more confident about using computers at home and at school and rated themselves better at using computers. Kay (1992)'s review supports these findings. In his review, 15 out of 33 studies on computer use abilities show that males report themselves skilled users. However, today, many factors such as social networking sites and online courses, affected teenagers' internet use (Gross, 2004; Lenhart & Madden, 2007). With the increasing online technologies both genders are fully active in computer and internet use and many findings of the past research remain insignificant today (e.g., Schouten, Valkenburg & Peter, 2007).

The data reviewed in this study suggest that, over time, adolescent boys' and girls' online activities (i.e., e-mailing, chatting, networking) have become more similar than different. In a recent study by Sibal and Bayhan (2010), a group of early adolescents ($m=13.45$ years old) were assessed regarding to their internet use. Their findings showed that internet use purposes of early adolescents vary between genders as boys are more into gaming and girls are more into chatting. However; findings of the present study shows that as children grow up, their online interests become more similar such as networking and chatting. This can be explained with the developmental characteristics of adolescents. As adolescents are more into social interaction with their peers, particularly their peers in opposite gender, they use internet as a social tool to get in touch with their friends as well as getting to know new people to interact. Besides, the increasing popularity of the social networking sites affect the internet use purposes of the adolescents as well. As those networking sites offer more than just networking, adolescents enjoy their time while they are online with sharing music and videos, playing flash games as well as meeting new people through interest groups.

Most participants in the present study reported using the Internet for both social and nonsocial purposes—often simultaneously. On average, they described their online social interaction as (1) occurring in private settings such as e-mail and instant messages, (2) with friends who are also part of their daily, offline lives, and (3) devoted to fairly ordinary yet intimate topics (e.g., friends, gossip). This finding is consistent with findings from a U.S. national sample, in which 14% of 10- to 17-year-old respondents had formed close relationships with people met online (Wolak, Mitchell, & Finkelhor, 2003), as well as with the follow-up to the original HomeNet study, in which more Internet use began to be associated with declines in loneliness and other positive social effects (Kraut et al., 2002). This pattern of results likely reflects the effects of changing Internet technologies and diffusion upon young people's online activities (O'Keefe & Zehnder, 2004).

Online multitasking was suggested in both quantitative and qualitative findings and is a domain worthy of attention in both research and education. For example, if youth are increasingly assigned homework that involves going online, and going online means ready, continuous access to one's peers, they will face new time (and attention) management challenges—and so will their parents, who may not be as savvy as their son or daughter at managing (or even identifying) online multitasking. Findings concerning online pretense suggest that adolescents are flexible in their online selfpresentation and conceal or feign their identity in multiple social and psychological

contexts; such activity appears to be more often motivated by a desire to play a joke on friends than to explore a desired or future identity, but participants' qualitative responses reveal a range of pretending content, contexts, and motives. As such, this identity play represents just one of many ways adolescents are making use of the Internet as a tool—or rather, through IM, e-mail, and chat, a number of tools—in their growing communication repertoire. Given the rapidly evolving landscape of young people's digital media use, it is impossible to make any hard and fast claims regarding such complex aspects of use as gender, adjustment, and identity; rather, it is hoped that the findings discussed above provide evidence of that complexity. In addition, researchers, journalists, and policymakers are urged to differentiate activity patterns of behavioral subgroups from the normative patterns reported by the majority of youth Internet users. Finally, the present research underscores the utility of conceptualizing and measuring the Internet as a social context for adolescent development which, like other social environments (e.g., school), can be analyzed in terms of its constraints and affordances for both adaptive and maladaptive social interaction and peer relationships.

References

- Bayhan, P. & Sipal, R. F. (2008). Gender Differences in Turkish Deaf Students' Attitudes Toward Computers and Computer Use. In K. McFerrin et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2008* (pp. 5003-5010). Chesapeake, VA: AACE
- Bayhan, P., Sipal, R.F. & Karaaslan, B.T. (2009). Computer Use among Turkish Middle School Pupils: Identifying Gender Differences in Attitudes Towards Computers. In G. Siemens & C. Fulford (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2009* (pp. 2510-2517). Chesapeake, VA: AACE
- Colley, A. & Comber, C. (2003). Age and Gender Differences in Computer Use and Attitudes among Secondary School Students: What Has Changed?. *Educational Research*, v45(n2), p155.
- Collis, B. A. (1985). Sex Differences in Secondary School Students' Attitudes toward Computers. *Computing Teacher*, 12(7), p33.
- Durndell, A. & Thomson, K. (1997). Gender and Computing: Decade of Change? *Computers & Education*, 28(1), p1.
- Gross E.F. (2004). Adolescent Internet use: What we expect, what teens report. *Journal of Applied Developmental Psychology*, 25, 633–649
- Kadijevich, D. (2000). Gender Differences in Computer Attitude among Ninth-Grade Students. *Journal of Educational Computing Research*, 22(2), p145.
- Kelly, R. (2003). Using Technology to Meet the Developmental Needs of Deaf Students To Improve Their Mathematical Word Problem Solving Skills. *Mathematics and Computer Education*, 37(1), p8.
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of Social Issues*, 58, 49–74.
- Lenhart A. & Madden M. (2007). *Teens, Privacy & Online Social Networks*. Washington, DC: Pew Internet & American Life Project.
- Livingstone, S. (2003). Children's use of the Internet: Reflections on the emerging research agenda. *New Media and Society*, 5, 147–166.
- Mumtaz, S. (2001). Children's Enjoyment and Perception of Computer Use in the Home and the School. *Computers & Education*, 36 (4), p347.
- Newell, A. F. & Gregor, P. (2000). *Participant sensitive inclusive design: in search of a new paradigm*. Proceedings from ACM Conference on Universal Usability, Washington DC, November, pp. 39–44.
- O'Keefe, B.J., & Zehnder, S. (2004). Understanding media development: A framework and case study. *Journal of Applied Developmental Psychology*, 25, 729–740.
- Ortega-Tudela, J.M. & Gomez-Ariza, C. J. (2006). Computer assisted teaching and mathematical learning in Down syndrome children. *Journal of Computer Assisted Learning*, 22, 298-307.
- Schouten A.P., Valkenburg P.M. & Peter J. (2007). Precursors and underlying processes of adolescents' online self-disclosure: Developing and testing an "Internet-attribute-perception" model. *Media Psychology*, 10, 292–314
- Sipal, R. F., & Bayhan, P. (2010). Preferred computer activities during school age: Indicators of internet addiction. *Procedia - Social and Behavioral Sciences*, 9, 1085-1089.
- Turow, J. (1999). *The Internet and the family: The view from the family, the view from the press*. The Annenberg Public Policy Center of the University of Pennsylvania. Retrieved March 19, 2011, <http://www.appcpenn.org/Internet/family/rep27.pdf>