



Misuse of ICTs among Turkish children and youth: A study on newspaper reports

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Abstract

This study investigated the misuse of Information and Communication Technologies (ICTs) among children and youth. The data source was newspaper reports obtained from three Turkish daily newspapers, between January 2006 and December 2012. In that seven years period, a total of 66 ICT misuse incidents were reported in the selected newspapers. Document analysis was performed on the newspaper reports. Themes and codes were entered as variables to manage the data quantitatively. Results revealed that ICT misuse was most commonly conducted through cell phones, social networking sites, instant messaging and web pages. Young people's involvement of ICT misuse had three forms; from young perpetrator/s to the young victim/s, from young perpetrator/s to adult victim/s and from adult perpetrator/s to young victim/s. ICTs were commonly misused for sexual abuse, insulting or taking revenge. While perpetrators were mostly males whose ages ranged between 14 and 52, a great majority of ICT misuse victims were females, with an age range from 8 to 46. Negative psychological and physiological impacts were reported by the victims.

Keywords: ICT misuse; Children and youth; Newspaper reports; Demographics; Impacts

Introduction

ICTs have become an unavoidable part of the young people's daily life. Young people can entertain themselves by playing games or can search information for school work; but at the same time, they can get scared or discomforted because of being exposed to online material like pornography (Louw & Winter, 2011). In addition to being passively exposed to distressing online materials,

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young people can become perpetrators of ICT misuse. For example, in a study done with Italian and Turkish university students revealed that the participants cyberbullied others by gossiping online, threatening or publishing private messages (Mura, Topcu, Erdur-Baker, & Diamantini, 2011). Therefore, children and the youth seem to be at risk of ICT misuse. ICT misuse can be defined as an umbrella term which covers exploitations of online technologies such as cyberbullying, cyber pedophile, online grooming, cyber stalking, sexting, online pornography or identity theft. Existing research has usually focused on a specific type of ICT misuse, and has explored the nature and the impacts of the relevant ICT misuse type by mostly using self-report methodology. Different from this dominant research design, this present study uses printed media as the data source and investigates the ICT misuses happened among young people. Specifically, this research aimed to investigate the following: (a) the describing features of ICT misuse incidents; (b) demographic characteristics of perpetrators and victims; (c) impacts of ICT misuse on children and youth.

ICT misuse among young Turkish individuals

Researching ICT misuses in Turkey is important for some reasons. According to a recent report comparing the ICT usage from 2007 to 2013 in Turkey (TÜİK, 2013), a considerable increase has been observed in the number of the households which have Internet connection, and the computer and Internet usage has steadily risen among the individuals ranging in age from 16 to 74. Moreover, Turkish people reported that they most frequently read online newspapers and magazines or they follow social networking sites online. According to another report which details the online experiences of children in 33 European countries (Haddon & Livingstone, 2012), however, young individuals in Turkey are involved in ICT misuses as well. Accordingly, the youth in Turkey (9 to 16 years old) saw, received or sent sexual images online; were bullied online; met a stranger face to face whom they met online; visited web pages which has damaging content such as hate groups, committing suicide or being anorexic. The same report also indicates that compared to the 33 European countries, Turkish parents have the lowest frequency of Internet usage, and are the least informed about the Internet.

Cyberbullying involvement is the most frequently studied ICT misuse behavior of children and young people in Turkey. Exploring the studies about cyberbullying behaviors can provide not only an understanding of how Turkish youngsters misuse ICTs but also in which ways they get affected. Arslan, Savaser, Hallett and Balci (2012) investigated the nature and the extent of cyberbullying perpetration and victimization among 389 Turkish primary school children aging

from 8 to 11 (from grades 2 to 4). They found that instant messaging and social networking tools, mobile phones, chat rooms and e-mail are misused for perpetrating others online. While 18% of the participants bullied others online, 27% were cyber victims, and 15% were bully victims; with boys being offenders more possibly than girls. What is more, regardless of the perpetrator or victim status, cyberbullying exposure was found to be related to lower levels of school satisfaction and achievement at school. Another investigation which studies the associations between cyber victimization and psychological symptoms among Turkish primary school children reported a significant correlation between cyberbullying exposure and psychoticism (Ayas & Deniz, 2014).

Cyberbullying engagement and its impacts among Turkish high school students were also studied. For instance, adopting a qualitative research design, Topcu, Yıldırım and Erdur-Baker (2013) found that Turkish high schoolers misused ICTs to spread rumors, to breach privacy and to steal passwords. In addition, cyberbullies were characterized as alienated, impolite, boastful and non-emphatic; whereas cyber victims were introverted, popular, weak in some aspects and unknowledgeable about Internet security. Misuse of ICTs to bully others is examined for Turkish university students as well. In their study examining the cyberbullying involvement experiences of Turkish university students, Ozden and Icellioglu (2014) reported that making anonymous calls, threatening someone, gossiping or making lies about someone and sending sexual intercourse proposals were the most common misuses of ICTs. Accordingly, males, compared to females, bullied others online more and considered cyberbullying as having less harm on the victims. The findings of the same study also revealed a significant association between cyberbullying exposure and psychoticism. Another study researching the linkages between depression, anxiety, gender and cyber victimization found that cyber victimization was more common among females, and cyber victimization was positively correlated to depression and anxiety (Ayas, 2014).

In sum, ICT misuse behaviors seem prevalent and pose harms to the personal, social and school life of the Turkish children and youth. Therefore, more research seems required to examine the nature, the extent and the impact of ICT misuses in Turkey. Research has utilized a self-report methodology to obtain data from youngsters to explore ICT misuses in Turkey. Unlike this prevalent research methodology, this current study aims to contribute to the ICT misuse literature by acquiring its data from printed media regarding the ICT misuses among young Turkish individuals.

Demographic characteristics and ICT misuses

Demographic characteristics seem to have an impact on ICT misuse behaviors. In terms of age, young people are considered as the major users of ICTs. Thus, the age group from 10 to 24 has been the main focus of most studies examining ICT misuse (e.g. Brandtzæg et al., 2009; Gordon-Messer, Bauermeister, Grodzinski, & Zimmerman, 2012). Young people seem using ICTs in a risky way without being aware of the dangers, and they become vulnerable to various online threats such as cyber bullying, sexting, pornography or identity theft as perpetrators and victims (Brandtzæg et al., 2009; Gordon-Messer, et al., 2012; Sabina, Wolak, & Finkelhor, 2008).

Adults are also using the ICTs in daily life (Selwyn, Gorard, Furlong, & Madden, 2003), and their ICT usage skills might affect their involvement in ICT misuse incidents. In other words, adults who are competent may also become involved in ICT misuse either as perpetrators or victims. In fact, the cyber pedophile and online grooming are reported as common ways of how adults victimize children and young people (Holt, Blevins, & Burkert, 2010; Whittle, Hamilton-Giachritsis, Beech, & Collings, 2013). Yet, adults are not immune from being a victim of ICT misuse. Majority of existing research has considered adults as perpetrators of ICT misuse incidents. This research, however, aims to take a different perspective by examining how adults are perpetrating others and are victimized as well.

As another demographic characteristic, gender differences among perpetrators and victims of ICT misuse were also reported. For example, males reported utilizing the Internet more frequently compared to the females in several studies (Joiner, et al., 2005; Jones, Johnson-Yale, Millermaier, & Pérez, 2009; Illomäki, 2011). Studies also reported that while males used ICTs for information seeking, leisure and entertainment, females used them for communication purposes (Jackson, Ervin, Gardner, & Schmitt, 2001; Weiser, 2000). Compared to the females, males were found not only to engage more in risky online behaviors (Lau & Yuen, 2013), but also to score higher in searching for online sexual content (Lai & Gwung, 2013; Soh, Teh, Hong, San Ong, & Charlton, 2013). Hence, gender appears to play a role in ICT misuse involvement.

Impacts of ICT misuses

The impacts of an ICT misuse event can go far beyond the cyber environments and harm victims in several ways. Author (2006), for example, reported that young people were exposed to verbal misuse, sexual harassment, sexual intercourse offers, insults, profanity and intimidation when online. The results of the same study also revealed that ICT misuses sometimes had physical harm on young people such as fighting after online quarrels, stabbing, committing suicide and even

death. Other impacts of ICT misuse among children and the youth such as suicidal ideations, symptoms of paranoia, anxiety and depression were reported as well (e.g. Livingstone, Haddon, Görzig, & Ólafsson, 2011; Ortega et al., 2012; Schenk & Fremouw, 2012). Therefore, children and young people appear to suffer from the impacts of ICT misuse.

Newspaper reports as the data source

Newspaper reports have the power to create and raise public awareness about social issues. They have been supplying data for various research fields including domestic violence (Lindsay-Brisbin, DePrince, & Welton-Mitchell, 2014), eating disorders (Shepherd & Seale, 2010), homicide/suicide and violent deaths (Liem & Koenraad, 2011). Self-report methodology has been the main data source for examining ICT misuses. Newspaper reports have the potential to offer complementary data source for ICT misuse research as well. Newspaper reports can provide supplementary data to study the nature, extent and the impacts of ICT misuse incidents. Also, newspaper reports can supplement the existing self-report data methodology by covering a longer span of time, more various events and more different locations. Thus, following up the previous work of Author (2006), this study examined ICT misuse incidents among children and youth by analyzing incidents reported in newspapers between 2006 and 2012. More specifically, this study aims to add up to the extant literature by examining the describing features of ICT misuse incidents, demographic characteristics of perpetrators and victims and the psychological and physical impacts of ICT misuse on children and youth.

Method

Newspaper reports and people involved in ICT misuse

A total of 66 newspaper reports were identified about the involvement of the people into ICT misuse incidents between January 2006 and December 2012 in Turkey. Of the three newspapers (Hürriyet, Cumhuriyet, and Zaman) examined, there were 40 reports published by Hürriyet, 13 by Cumhuriyet and 13 by Zaman. Despite the various missing data, school level of the student ICT misuse involvers were all provided by the newspaper reports. There were 17 primary school students, 46 high school students, 8 university students and 28 adults (from different professional backgrounds such as teachers, academics or shopkeepers) who were involved in ICT misuse. Of the involvers, 50 were females and 60 were males.

Data selection and analysis procedure

The procedures followed in this study were as follows: in the first step, three Turkish daily newspapers (Cumhuriyet, Hürriyet and Zaman) were selected. These newspapers were included in the study considering their high circulation, reflecting different political views and being reference newspapers. To be able to utilize the reports as the data source of this research, permission was obtained. Newspaper reports concerning ICT misuse incidents between 2000 and 2006 were previously examined by Author (2006). However, their analysis covered the newspaper reports between 2000 and March 2006. As their paper was published at the beginning of 2006, newspaper reports published during 2006 were decided to include to the analysis. Thus, newspaper reports published between January 2006 and December 2012 were the data source of this research. The originality and the accuracy of the newspaper reports were ensured by obtaining them from their primary sources, newspaper websites in this case, and by saving their URL addresses in their original form to be able to reach them later. To further contribute to the originality and the accuracy of the newspaper reports, a report which was published in any of the other two newspapers was only counted once and cross-checked to understand if there were any discrepancies. If a report was published only one of the newspapers, cross-checking could not be done.

In the second step, a keyword search was conducted to find newspaper reports related to the research aim. ICTs like cell phones and social networking sites and target research samples at all school levels (primary school, high school and university) were matched in the keyword search. A newspaper report to be selected for this study had to be an ICT misuse incident where primary school, high school or university students were involved either as perpetrators or victims. Newspaper reports which were about an adult being involved as a perpetrator or a victim in an ICT misuse incident one of whose counterparts was children or young people were also admitted as the data source.

In the third step, document analysis was performed. Document analysis is a procedure which systematically analyzes printed or electronic materials (Bowen, 2009). Analyzing printed documents such as newspapers enables the researchers to acquire data which cover a long span of time, various events and different locations compared to experimental or survey studies (Bowen, 2009). The content of the newspaper reports were the examined to identify codes and themes. The first author of this study coded the newspaper reports and then created themes. Then, the final code list and themes were discussed and decided with the second author of the study and also reviewed by the third author. Themes in the final code list were in three parts. The first part was

about the describing features of the ICT misuse incidents which were city, region year, types of ICTs, aim and direction of ICT misuse incidents which has three forms; from young perpetrator/s to the young victim/s, from young perpetrator/s to adult victim/s and from adult perpetrator/s to young victim/s. The second part included the perpetrators' age, gender and acting alone or in a group. The last part involved the victims' age, gender, being victimized alone or as a group, and impacts of the ICT misuse.

In the final step, the themes were nominally or categorically quantified as variables in IBM SPSS Statistics 21. For example, the theme of ICT type was considered as a variable and types of ICTs like chat rooms, social networking sites or mobile phones were coded under this theme. The frequencies of the each theme were identified so that the quantitative method could be used to manage the data in a systematic way.

Research Questions

This study seeks to answer the following questions: “What are the describing features (frequency, geographical location, aims, ICT types and direction) of ICT misuse incidents? What are the characteristics (gender, age, school levels, perpetrating alone or with a group) of perpetrators and victims of ICT misuse? What are the impacts of ICT misuse on victims?”

Results

Three main categories were generated from the content analysis. The first category was *describing features of ICT misuse incidents*; the themes under this category were frequency, year, geographical region, aim, and ICT types of the ICT misuse incidents. The second category was *perpetrator characteristics*; themes of which were perpetrators' age, gender, acting alone or in a group. The last category was *victim characteristics*; the themes under this category were age, gender, being victimized alone or as a group, and impacts of ICT misuse.

Describing features of ICT Misuse Incidents

A total of 66 ICT misuse incidents were identified. On yearly basis, there were; six cases in 2006, seven cases in 2007, 11 cases in 2008, nine cases in 2009, 12 cases in 2010, 10 cases in 2011, and 11 in 2012. On geographical basis, the numbers of the incidents were; 27 cases (40.9%) in Marmara region, 15 cases in Central Anatolia region (22.7%), nine cases (13.6%) in Aegean Sea region, eight

cases (12.1) in Mediterranean Sea region, four cases (6.1%) in Black Sea Region, two cases (3.0) in Southern Eastern Anatolia, one case in Eastern Anatolia (1.5%). While 40.9% ($n= 27$) of the young people perpetrated their peers, 36.4% ($n= 24$) of the adults perpetrated young persons. Yet, the number of the cases in which an adult or adults were victimized by young persons ($n= 14$, 21.1%) cannot be underestimated.

Regarding the aims of the ICT misuses, sexually abusing someone ($n= 32$, 48.5%) was the most frequent purpose reported. ICTs were also misused for insulting someone ($n= 9$, 13.6%), getting revenge from someone ($n= 9$, 13.6%), blackmailing someone ($n= 8$, 12.1%), planning or inciting murder ($n= 3$, 4.5%), broadcasting or inciting violence (fighting, stabbing or wounding someone) ($n= 3$, 4.5%) and threatening someone ($n= 1$, 1.5%). These aims were generally achieved by embarrassing and offending photos, videos or text messages.

Table 1 shows frequencies and percentages of types of ICTs in misuse incidents. While cell phones (45.6%) and social networking sites (25.0%) were the most common ICTs, video cameras (4.4%) and chatrooms (2.9%) were less frequently used ones.

Table 1

ICT tools used in misuse incidents

Types	<i>f</i>	%
Cell phone	32	48.5
Social networking	17	25.8
Instant messaging	7	10.6
Web page	4	6.1
Video camera	3	4.5
Chat room	2	3.0
Camera	1	1.5
Total	66	100

Perpetrator and Victim Characteristics

Perpetrators were mainly males (72.7%) and 23 years old or older (32.4%) (Table 2). The mean age of the perpetrators was 25.58. Considering the school levels, three of the perpetrators (4.5%) were primary school children, 19 were high school students (28.8%), two (3.0%) were university students and the rest ($n= 16$, 24.2%) were adults (missing $n= 26$, 39.4%). Furthermore, while 60.6% of them ($n= 40$) acted alone, 39.4% ($n= 26$) acted in a group while targeting their victims.

Victims were mostly females (69.7%), and more than half of them were between 14 and 17 years old (Table 2). The mean age of the victims was 16.86. Considering the school levels, 14 of the victims (21.2%) were primary school children, 27 were high school students (40.9%), six were university students (9.1%) and the rest ($n= 12$, 18.1%) were adults (missing $n= 7$, 10.6%). Victims were usually targeted alone ($n= 52$, 78.8%), whereas some ($n= 14$, 21.2%) were targeted as a group.

Table 2

Descriptive statistics regarding gender and age of the perpetrators and victims

	Perpetrators <i>f</i> (%)	Victims <i>f</i> (%)
Gender		
Female	4(6.1)	46(69.7)
Male	48(72.7)	12(18.2)
Missing	14(21.2)	8(12.1)
Total	66(100)	66(100)
Age		
8-13	-	7(10.5)
14-17	12(18.2)	34(51.5)
18-22	9(13.6)	6(9.0)
23+	22(33.1)	5(7.5)
Missing	23(34.8)	14(21.2)
Total	66(100)	66(100)

Impacts of ICT Misuse

Impacts of ICT misuse on the victims were also reported by the newspapers. Nineteen of the newspaper reports mentioned how the victims suffered from ICT misuse. The victims reported psychological problems ($n= 8$, 12.1%) such as fear, depression, isolation and loneliness; physical problems ($n= 9$, 13.6%) such as fights, stabbing, wounding and even death; and both psychological and physical problems ($n= 2$, 3.0%).

Discussion

This study investigated ICT misuse involvements of children and youth in Turkey. According to the results, the frequency of the number of the ICT misuse incidents in Turkey showed an increase from the year 2006 to 2012. As this study is cross-sectional in nature, this increase cannot be considered as a statistically significant increase. Nevertheless, the frequent ICT usage has been previously suggested as a significant predictor of ICT misuse involvement (Brandtzæg et al., 2009; Erdur-Baker, 2010). Considering the increasing frequency of ICT usage in

Turkey (TÜİK, 2013), this increase in the frequency of the ICT misuse incidents among Turkish children and young people seems unsurprising. Future longitudinal studies which aim to explore the nature and the extent of ICT usage and misuses, therefore, would certainly benefit to ICT misuse literature.

Moreover, the number of ICT misuse incidents was higher in densely populated and industrialized regions of Turkey such as Marmara, Central Anatolia or Aegean Sea where more people have been reported having frequent access to Internet and other ICTs (TÜİK, 2013). This finding is important in two aspects. First, it provides more support to the finding above which suggests more frequent usage of ICTs influences the involvement of ICT misuse (Brandtzæg et al., 2009; Erdur-Baker, 2010). And, it implies that children, youth and adults living in industrialized regions might to be more at risk compared to people in other regions. In future studies, the relationships between frequent ICT usage and the risk of ICT misuse involvement of the children and young people could be explored in addition to the risks of their living in industrialized regions or cities.

The results of this research supported the existing ICT misuse studies suggesting that children and young people are perpetrating peers or being victimized by peers (Mura et al., 2011); and adults are victimizing children and young people (Whittle et al., 2013). Different from the previous research, this study found out that adults were not only perpetrators of ICT misuse, but they were also victimized by children and young people. This finding implies that adults, as well as the youth, are also at risk of being a victim of ICT misuse. Thus, programs similar to the prevention and intervention programs aiming at protecting children and young people from the risks of ICT misuse could be helpful for the adults as well. This finding is also supporting the assumption that engaging online harmful conducts does not depend on physical power but depends on being more knowledgeable and skillful in ICT usage (Slonje, Smith, & Frisen, 2013). Therefore, competence in ICT usage seems to be an important factor creating a power imbalance between victims and perpetrators, regardless of their age. It would be interesting for future research to investigate the victimization of adults by considering their ICT usage proficiency.

In this study, a clear gender difference appeared to exist between perpetrators and victims of ICT misuse. While being a male seemed to be mostly related to being a perpetrator, victims of ICT misuse were mostly females. One reason of this gender difference can be associated with the frequency and the competency of the ICT usage among males. Regular and skilled, male ICT users can tend to use ICTs for harmful reasons as they may be more knowledgeable with what ICTs afford for their damaging intentions. The recent report detailing the ICT usage statistics in Turkey

(TÜİK, 2013) indicated that although 60% of the males were computer and Internet users, less than 40% of the females were using computers or Internet. This reasoning also seems to be supported by the international literature which found that males reported using ICTs more frequently and more competently (Illomäki, 2011; Jones et al., 2009). Furthermore, male individuals' tendencies of participating in risky online actions (Lau & Yuen, 2013) can make them less fearful about their actions, and thus feel more free to perpetrate others. On the other hand, whether males or females are involved as perpetrators or victims has been a conflicting topic in ICT misuse literature (Slonje et al., 2013). Thus, future studies are needed to examine the impact of gender on ICT misuse involvement.

With respect to age differences, although perpetrators were mostly 23 years or older in this study, people in almost all ages engaged in ICT misuse perpetration (See Table 2). In addition, while more than half of the victims were between 14 and 17 year old, other age groups were victimized as well. This finding was consistent with the earlier literature reporting that ICT misuse victimization is not limited to age, and victimization reaches its peak in adolescence (Tokunaga, 2010). A further contribution of this study to the literature was about whether perpetrators and victims of ICT misuse were involved alone or in groups. The results showed that individuals mainly acted alone while perpetrating others or being victimized. Yet, the frequency of the group perpetration and victimization cannot be overestimated. This finding adds to the existing knowledge about ICT misuse by implying that both individuals and groups are engaged in ICT misuse perpetration and victimization. More research regarding ICT misuse involvement of individuals and groups can be helpful to understand more about the dynamics of ICT misuse.

According to the results of this study, sexually abusing someone was the most prevalent reason of the ICT misuse incidents. Considering that perpetrators in this study were mainly males, this finding is not surprising. This is because the previous research findings indicated that male ICT users tend to seek for more sexual content (Lai & Gwung, 2013; Soh, et al., 2013) and take more risks online (Lau & Yuen, 2013). Besides sexual abuse, perpetrators of ICT misuse had other intentions like insulting someone, getting revenge or blackmailing. This finding supports the evidence that intentionality of the behavior is a significant characteristic of ICT misuse (Ybarra & Mitchell, 2004). To achieve their harmful intentions, perpetrators seem to prefer ICTs because of their unique affordances such as anonymity, broadcasting content to an infinite number of audiences or hiding their real identity.

Furthermore, consistent with the earlier research (Author, 2006; Ortega et al., 2012; Schenk & Fremouw, 2012), this study found that victims of ICT misuse suffered from negative

psychological and physical impacts such as fear, loneliness, fighting or stabbing. This finding provides further support to the earlier studies (Hinduja & Patchin, 2007) in underlining that ICT misuse brings about psychological and physical impacts on children, young people and adults.

In sum, ICT usage seems to get more prevalent in the every aspect of the daily life. Though most individuals are benefitting from using ICTs, others, are posing harms on others. Therefore, researching and understanding more about the nature, extent and the impacts of ICT misuses gain importance. More research regarding the ICT misuse in different age groups will not only advance the knowledge and raise more awareness, but also will shed light on ICT usage policies to protect individuals from the negative impacts of ICT misuse. And the data obtained from the printed media, as well as the self-report methodology, has the potential to contribute to the knowledge about ICT misuse.

Strengths and Limitations of the Study

Unlike the extant ICT misuse literature, this study acquired its data from newspaper reports. Using printed media to understand how children and young people are involved and affected by ICT misuse can add another perspective to the literature by offering a new variety of data. The data of this study were strong in terms of being not affected by the researcher or participant bias. Besides, it covered a longer span of time, more various events and more different locations compared to the self-report questionnaire research. It also covered the ICT misuse incidents happened throughout Turkey. Despite the strengths, there are some limitations of this study. Information provided in newspaper reports can be partly missing, not sufficiently detailed or erroneous. Newspaper reports may also lead to distorted or exaggerated representations of personal experiences and opinions of the persons. Furthermore, there may most likely be other ICT misuse incidents happened but not covered by the newspapers used as data source of this study. In addition, since they were published in printed media, cases used as data source of this study were likely to be the most severe incidents of ICT misuse. Thus, this fact should be kept in mind while reading this paper.

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