Indonesian Adolescents' Digital Literacy, Privacy Practices on Social Network Sites (SNSs), and Bullying Experiences in Cyberspace

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Statutory Declaration

I hereby declare, that I authored this dissertation independently and I did not use any sources other than the ones cited in the list of references – especially not any other Internet sources that have not been mentioned. The dissertation has not been submitted to any other board of examiners before and has not been published yet. The printed hard copy is consistent with the electronic version. Direct or indirect quotes from other works are clearly marked, indicating the source.

Hamburg, July 2019

Yoseph Bambang Wiratmojo

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CHAPTER 1

Internet, SNS, and Cyberbullying

1.1. Background

Indonesia is the world largest archipelagic country, consisting of more than 17,500 islands spread along the equator. Java Island is the main island, and where all government activities are organized. The dichotomy between Java and other islands is sensitive issue in all aspects of Indonesian life. Java has been a priority in development, and telecommunication infrastructure is no exception. There is also a significant gap in telecommunication infrastructure between urban and rural areas. Of the 66,778 villages in Indonesia, almost 65% remain unwired. In 2010, the density of fixed telephony was just 3.55% (Lim, 2011).

Despite its fixed-line telephone monopoly, Telkom Indonesia (www.telkom.co.id.) – a government-owned telecommunication business entity – has been unable to provide equal telecommunication infrastructure in Indonesia. Indeed, Statistics Indonesia (BPS, 2016) indicates that fixed-line telephone ownership in urban and rural areas has decreased continuously from 13.01% in 2005 to 3.49% in 2016. At the same time, private telecommunication enterprises have succeeded in developing wireless telecommunication infrastructure, increasing wireless telephone ownership in urban and rural areas from 19.88% in 2005 to 88.71% in 2016.

Telkom Indonesia has monopolized fixed-line telephony in Indonesia since 1965. It also dominates fixed-networks (voice, broadband), mobile (voice, broadband), wholesale and international (data, content platform), network infrastructure (satellite,

cable, tower), digital enterprise (information and communication technology platform service), and consumer (digital) apps. Having installed much of Indonesia's telecommunication infrastructure, Telkom Indonesia rents it out to private telecommunication companies and corporates. Private internet service providers (ISP) depend absolutely on Telkom Indonesia's fixed-broadband infrastructure. In 2016, there were 354 ISPs in Indonesia. 348 (98.3%) of which relied on Telkom Indonesia's fixed broadband infrastructure and 6 (1.7%) depended partly on its mobile broadband infrastructure (APJII, 2016). Accessing the internet by mobile phone allows Indonesians to escape the limitations of fixed-line internet.

Indonesia entered the internet era in 1995, when some science students of major universities in Java pioneered the establishment of restricted ISPs on their campuses. Raising research funds from sponsors, they connected to each other: five state universities in Java and one in Sulawesi island. By the end of the 1990s, there were 32 private commercial ISPs, with about 250,000 paid subscribers. Most subscribers were corporations and high-income families. Subscriber development was hampered by the lack of infrastructure and the national economic crisis that hit Indonesia in 1997 (Hill and Sen, 2002). In general, people could not afford to buy a computer or have a telephone connection.

The accessibility of the internet increased along with the mushrooming of *warnet*. *Warnet* is an abbreviation of *warung internet* or internet kiosk/café. They traced their roots to the *wartel* (*warung telekomunikasi*, or telecommunication kiosks) that had enabled people to access public telecommunication services such as telephone, facsimile, and telegraph since the beginning of the 1980s. The Indonesian government had promoted the growth of *wartel* to facilitate long-distance communication among people who could

not subscribe to home telephone connections. Later, *wartel* began renting computers with internet connections at affordable hourly tariffs to the public. Such businesses were in significant demand at that time, and as such some individuals or groups established *warnet*, which provided several computers with internet connections. For added service value, these businesses sold food and beverages. In the early 2000s, more than 2,500 *warnet* could be found in cities and towns across Indonesia (Lim, 2005).

As wireless telecommunication infrastructure developed, people found it easier to access the internet through their cellular phones rather than through *warnet*. In 2010, a Yahoo!-TNS Net Index survey found that internet access in *warnet* had decreased, even as general internet use in Indonesia increased gradually. Many *warnet* in big cities lost their customers and were closed. Meanwhile, mobile internet traffic increased tremendously (Dyah and Theresa, 2010).

As better wireless telecommunication infrastructure has become available, the number of Indonesian internet users has increased day by day. According to the Indonesian Internet Service Provider Association (APJII, 2015), the number of internet users has increased significantly, from 16 million in 2005 to 110.2 million in 2015. However, most are still concentrated in the urban areas of western Indonesia, particularly Java, Sumatra, Bali, and some parts of Kalimantan (Borneo). About 13% of users access the internet through tablets, 14% through desktop PCs, and 32% through notebooks; however, most (85%) access the internet through mobile phone. The favorite online activities of Indonesians are social networking (87.4%), followed by information browsing (68.7%) and instant messaging (59.9%).

Indonesians have been astonished by their convenience access to information from the internet. Better telecommunication infrastructure, affordable telecommunication

tariffs, and competitive smartphone prices have made it easier for people to access the internet at anytime and anywhere. Indeed, the smartphone market in Indonesia is very attractive for manufacturers and importers, because smartphones are duty-free and VAT-free products. These policies have been taken by the Indonesia government to increase foreign investment (Detik.com, 13.09.2013). With its large population, Indonesia is the largest smartphone market in Southeast Asia. Indonesians always to appear up to date in the latest technology, and as such they easily adopt advanced communication technologies without considering and anticipating their negative effects.

1.2. Objectives

Given the easiness of accessing an overwhelming amount of information, Indonesian parents worry that their children are exposed to pornography and other negative internet contents. They can control and supervise their children when they watch television, but not when their children access the internet using smartphones (Nazaruddin in Sasangka et al., 2010), as children can access the internet using their smartphones anywhere at any time. Furthermore, Hendriyani et al. (2012) find that smartphones have become easily available in the bedrooms of Indonesia's children, together with television sets, game consoles, books, and magazines. They do not share their smartphones with their siblings, and most Indonesian children receive their first smartphone at the age of ten. Smartphone ownership of children can potentially increase their activity online, because these phones are personal belongings. This leads to the first research question:

"To what extent do Indonesian adolescents' access and use the internet in their daily activities?"

It cannot be denied that Internet use by adolescents has sparked public debate between risk and opportunity. Hasebrink and Lampert (2011) categorize content media as potentially risky to children if they are positioned just as recipients of mass-produced images or text, to which they are sometime unwillingly and unwittingly exposed when they go online; this may include pornographic and racist/hateful content, embedded marketing, gambling, sexual harassment, cyberbullying, and so on. Livingstone and Brake (2010), meanwhile, state that opportunities and risks are intercorrelated. The more opportunities are enjoyed by children, the more risks they encounter. The more skilled children are in their use of the internet, the more they experience both opportunities and risks. Livingstone and Brake consider media or digital literacy to be very important, and as such it should be included in school curricula and teacher/parent media training to minimize the risks of online activities.

Furthermore, Livingstone and Brake urge digital literacy comprehension to be taught earlier in adolescence to minimize risky experiences to online activities. Digital literacy comprehension consists of the ability to think critically when searching, evaluating, and creating digital information. It requires a person to be knowledgeable of the ethical, moral, and legal issues of online transactions. The socioemotional dimension of digital literacy emphasizes individuals' ability to be responsible when using the internet for communication, socialization, and learning, and requires them to understand netiquette (e.g. respect and using appropriate language and words to communicate with others), protect individual safety and privacy by keeping personal information, recognize

when they are being threatened, and know how to cope (Ng, 2012). Therefore, to understand Indonesian adolescents' experiences with internet access and internet use, we propose the second research question:

"To what extent do Indonesian adolescents' internet access and internet use support their digital literacy?"

It has been explained above that visiting SNSs is a favored activity when Indonesians use the internet. Indeed, having leisure time with SNSs is considered fun by adolescents, because they can share their activities, profile, knowledge, and other positive things that can symbolize their existence to their peers (Liu et al., 2016). Some feel that they must have an SNS account, as their friends already do. Through SNSs, they have contact with other people, be they family, boy/girlfriends, teachers, idols, prominent people, or even interesting strangers. On the one hand, this is an exciting experience, but on the other hand it can cause many problems.

The anonymity of cyberspace allows adolescents, and even children, to join specific activities. Lee (2007) refers to anonymity as a dimension of internet privacy, one related to basic privacy in surfing the web and communicating online. However, anonymity is sometime misused for personal interests or for deceiving others. For example, it is common for underage children to create accounts on SNSs by entering a birth year that makes them appear older than they really are and thereby meet the site's terms and conditions (Livingstone, 2008). Their parents may even help them make accounts (Boyd et al., 2011).

At the same time, studies have shown that SNSs users are very careless in their disclosure of personal data. They know the privacy risks of SNSs, but behave as they should not: they do not know much about privacy policies, and may use privacy settings inconsistently, if they even do not use them at all (Debatin et al., 2009). Park (2011) argues that technical familiarity with digital media and online experiences have an especially notable effect on individual privacy strategies. Privacy strategies are important elements of digital media use, given the medium's ability to process and store information. Any information can be very easily stored, duplicated, and distributed. As such, users may be vulnerable. However, the concept of privacy is contextual. Privacy is part of the culture of democracy, which entitles a person to "have a private space" in public life (Westin, 2003).

In Indonesian culture, the "Western" concept of privacy is not known, and indeed it is referenced through the loanword *privasi*. Culturally, however, Indonesians do use the term *rahasia*, which translates to "confidential" or "secret" in English, meaning "something that is intentionally hidden so that no one else knows it" according to the Official Dictionary of the Indonesian Language (KBBI). Indonesia is, at its roots, an agriculture society, which prioritizes harmony in social relations, togetherness, and mutual assistance. Tolerance and respect for neighbors is imparted from older to younger generations. Neighbors are frequently contacted when seeking social support in everyday life. Stopping by a neighbor's house without any prior appointment is a common thing in daily life. There is a norm of mutual assistance and shared involvement that maintains community cohesion in Indonesian (Magnis-Suseno, 1993).

In rural areas, children may play outside the house together with their neighbors. Urban adolescents also form groups among their school friends, which may consist of

four to six adolescent males or females. These are commonly called *geng* (gangs). Telling secrets – about their interest in and love of the opposite sex, their problems with their parents or their peers – is something common. Usually these groups keep their friends' secrets and are loyal to each other. Exploring how adolescents express themselves among their peers on digital media, instead of in face-to-face interactions, could be a marker of social changes. Hence, we propose the third research question:

"What are Indonesian adolescents' privacy practices in SNSs?"

As SNS use increased, in 2010 the Indonesian police made 300 cybercrime indictments; 200 of them were for bullying via Facebook (Amelia, 2011). Meanwhile, the Indonesian National Commission for Child Protection (Komnas PA), from January to February 2010, received 100 reports of cyberbullying (Adit, 2010). In early 2012, IPSOS found that 91% of Indonesian parents were aware that their child or a child in their community had experienced cyberbullying (The Jakarta Globe, 2012). According to the Indonesian National Commission for Child Protection, the effects of cyberbullying could be more dangerous to victims than physical bullying. Usually, the victim cannot be identified or does not know the person with whom they are dealing with. This might cause the victim to feel valueless, isolated, and dehumanized. In some cases of cyberbullying, victims end their lives because of depression. In May 2013, an Indonesian music promoter committed suicide by jumping in front of a running train after he received much negative feedback on his Twitter account related to an earlier concert. *"Thank you for the invective*

@lockstockfest2 ... this movement ... movement toward God ... greetings" was the promoter's last tweet before committing suicide (Edward, 2013).

Previous research on cyberbullying in Indonesia has come from varied scientific backgrounds—i.e. psychology, law, information technology—but have generally not revealed facts about the varieties, backgrounds and motives of bullying itself. Sudarwanto (2009) examined cyberbullying from a legal perspective, which explained that cyberbullying could be categorized as cybercrime. Sudarwanto found that some European countries and the United States had made cyberbullying a criminal act, but not Indonesia. He did not find any perpetrators of cyberbullying who had been punished by Indonesian courts. Sudarwanto tried to argue that cyberbullying could result in legal charges, but could not show cyberbullying facts in Indonesia. He instead cited cases of cyberbullying from Canada, China and the United States.

Meanwhile, Satyawati and Purwani (2014) argued that there is *"an empty legal norm"* on cyberbullying in Indonesia. That there is not a single article in Law No. 11 of 2008 on Information and Electronic Transactions (ITE) or in the Indonesian Criminal Code (KUHP) pertaining to the concept of cyberbullying and its punishment. Satyawati and Purwani quoted Willard (2007) about different types of cyberbullying, i.e. flaming, harassment, denigration, impersonation, outing, trickery, exclusion, and cyberstalking. The ITE law only includes insult, libel, extortion, and threats; flaming, harassment, impersonation, outing, trickery, exclusion and cyberstalking are not included. As such, there is still the possibility that perpetrators of cyberbullying cannot be charged under Indonesian law. Satyawati and Purwani also described incidences of cyberbullying that were not from Indonesia.

Prior research into Indonesian cyberbullying using a social sciences perspective was done by Rahayu (2012), using a survey conducted in three towns in two provinces on Java (Central Java and Special Region of Yogyakarta). Rahayu conducted a survey of three junior high schools and four high schools. Through a questionnaire, which was completed by 363 students, it was found that 28% of students felt that they had been cyberbullied. Of respondents, 40% said that they did not know who attacked them, but 60% did know; 37% were their classmates, 6% were their seniors, 40% were their juniors, and 7% were students of other schools. In these cases of cyberbullying, 35% were conducted using SNSs and 33% used short message systems (SMS). Cyberbullying was predominantly taunting (52%) and defamation (30.3%). Rahayu also found that some students took revenge on those who cyberbullied them, using SNSs (38%) and SMS (34.1%).

Other research into Indonesian cyberbullying was conducted by Satalina (2014) using a psychological approach. Satalina explored the tendencies of extroverts and introverts in cyberbullying. Satalina conducted a survey of 236 students in a senior high school, identifying their personality types using an Eysecnk Personality Inventory (EPI) index. It was found that extroverted students perpetrated cyberbullying more frequently than introverted students. Female students tended to perpetrate cyberbullying more often; they were also more likely to be victims of cyberbullying.

Akbar, Huang, and Anwar (2014) attempted to develop a cyberbullying scale to investigate its prevalence among Indonesian adolescents. Research was conducted in a senior high school in Bireun, Special Region of Aceh, using a survey of 245 students. Flaming, harassment, stalking, denigration, impersonating, outing, deceit, and exclusion were used as indicators of cyberbullying. The results showed that the cyberbullying scale

produced had internal consistency and was highly reliable, with a Cronbach's alpha of scale greater than 0.910 and item scale coefficient greater than 0.30.

Margono, Yi, and Raikundalia (2014) explored the patterns of Indonesian cyberbullying on SNSs by mining words that were commonly used to bully others. A certain software was used to collect words related to insulting others on Twitter. The survey was conducted in Jakarta and Surabaya, the two largest cities in Indonesia. Uniquely, Indonesians used bullying words related to animals, psychology, disability, and attitude. One example is *"kamu gila, perilakumu seperti anjing, bangsat!"* (You are crazy, you act like a dog, rascal!). They identified four words that were commonly used by Indonesian Twitter users to insult others, namely *"anjing"* (dog), *"bangsat"* (rascal), *"setan"* (Satan), and *"iblis"* (demon). Margono, Yi, and Raikundalia concluded that perpetrators of cyberbullying have a social attitude problem, which causes them to always feel superior to their victims. They then invite others to be involved in cyberbullying. Therefore, we propose the fourth research question:

"Which forms of cyberbullying do Indonesian adolescents experience? How do the victims react and try to cope with their negative emotions? What are the motives of cyberbullies?"

Livingstone et al. (135: 2011) emphasized the importance of comprehension of both the circumstances and consequences of being bullied and the act bullying in bullying research. Therefore, the closest social environments of adolescents, i.e. their families, schools, and friends, need to be explored. Meanwhile Zhou et al. (2013) postulate the

importance of parents and teachers' restrictions on internet usage at home and at school to mitigate the effects of cyberbullying. However, children do not only access the internet at home and at school; they also use gadgets (smartphones or tablets), which may increase the likelihood of cyberbullying. Better mobile internet accessibility allows them to continuously be online and connected to the virtual world. The more often they are online, the more likely they are to be exposed to bullying in cyberspace (O'Neill and Dinh, 2015). Hence, we would like to propose the fifth research question:

"How does social mediation (parents, teachers, and friends) influence the interplay between Indonesian adolescents' internet access, internet use, digital literacy, privacy practices and cyberbullying experiences?"

1.3. Dissertation outline

Chapter one provides a background of why this study needs to be organized in Indonesia. It explains the development of ICT infrastructure in Indonesia and its related social effects. Several research questions are raised to explore adolescents' experiences with the internet. Chapter two describes the theoretical foundation, including internet use, digital literacy, SNS privacy practices, (cyber)bullying experiences, and the roles of parents, friends, and teachers as the persons who provide social support to adolescents when they have problems.

Chapter three describes the variables, concepts, and operationalization of this study, the research design, and data collection methods. Chapter four explains the

execution of data collection and presents the findings of the research through description and statistical data processing. Finally, chapter five summarizes the main findings and highlights the research limitations as well as the scientific contributions of this dissertation. It also discusses opportunities for future research based on the results of this study.

CHAPTER 2

The Framework

2.1. Internet access and use

Internet access in Indonesia has become increasingly better over time. Some private and government-owned telecommunication companies have invested in fiber-optic cables, both on land and at sea. Affordable digital devices and internet data packages have given Indonesians the opportunity for better internet access.

According to Busselle and Shrum (2003), accessibility refers to the public's ease of reaching certain physical facilities, information, or services to improve the quality of life for every human being. In the context of ICT, Piccolo et al. (2007, p. 363) understand accessibility as "directly related to usability and quality of use of computer system". The ease of accessing ICT facilities gives people greater opportunity to use ICT to find the information they need, including public service. Uses and Gratifications theory assume that people consume and use media to satisfy their needs for information. The motives and outcomes of people's use of media will guide them in choosing media vehicles and the information they consume. Related to internet use, Pappacharissi and Rubin (2000) assume that the social and psychological characteristics of users affect how they use the internet. The internet itself has a unique nature, because it consists of millions of networks that provide an abundance of information.

In terms of internet access and use, Livingstone and Helsper (2009) found a correlation between quality of access, which consists of the number of internet access

locations and how long someone has accessed the internet, with the amount of internet use and internet literacy. Better online access gives people more opportunity to use the internet and increase their online skills. However, spending more time online does not only increase online skills, but also online vulnerability. In fact, the internet is a jungle of information, with diverse information—from anyone and anywhere—exposed to users at all times. This poses a dilemma for parents who have highly curious children; should they keep watching their children while these children use the internet—which is impossible—or give their children the freedom to access the internet but risk them being exposed to harmful information.

Livingstone and Helsper believe that internet use is associated with online opportunities for adolescents (e.g. better resources for school projects, increased friends networks, diversity of information choices, etc.). However, at the same time, these opportunities increase online risks (e.g. exposure to pornography, embedded advertisements, online gambling, etc.). Computer mediated communication (CMC) provides users with abundant information and communication vehicles for social connections. Accordingly, adolescents use the internet to keep themselves in contact with their peers. Arnett (1995) recognizes five common categories of adolescents' media use: entertainment, identity formation, high sensation, coping, and youth culture identification. As adolescents enter the internet, email, instant messaging, and social networks offer popular media vehicles to express their emotions and social connections with their peers (Gross, 2004; Guan and Subrahmanyam, 2009; Brussee and Hekman 2009).

In the early 2000s, many software producers developed software that could integrate text messaging, instant messenger programs, bulletin boards, computer-support

for collaborative work, and so on. This software became known as social media or media that supports social collaboration (Barnes, 2006). Over time, social network sites became favored software that enabled people—especially youths—to express themselves using digital media.

In 2006, the Senate of the United States of America amended the Communication Act of 1934 by introducing the "Deleting Online Predators Act of 2006" (H.R. 5319). This amendment defined social network sites as websites that

(i) are offered by a commercial entity;

(ii) permit registered users to create an on-line profile that includes detailed personal information;

(iii) permit registered users to create an on-line journal and share it with other users;

(iv) elicit highly-personalized information from users; and

(v) enable communication among users.

Meanwhile Boyd and Ellison (2008) identify social network sites as media that allow users to construct public or semi-public profiles, communicate and share expressions with people with whom they are connected, and view and visit the profiles of people with whom they are connected within the system.

2.2. Digital literacy

Adolescents are familiar with the use of the internet, including social network applications. As such, Prensky (2001, p. 1) called them as "digital native". They are a generation that was born and grew up in an era of digital technology. Digital natives spend most of their time with computers, video games, digital music players, cellular phones, and other digital media devices. They are characterized as multitasking, thriving for gratifications, and receiving information very quickly. They have a distinct style of learning: they crave interactivity, they value graphics before words, they want random access, and they operate at the twitch speed of video games. Those skills are needed for them to adapt to the era of technology. These abilities are part of digital literacy, which is important for the digital era.

Digital literacy can be traced from literacy's concept. Buckingham (2007) explained that literacy is closely related to the ability on writing; in English, it is synonymous with competence; in French, it is defined as "alphabetization" (p. 75). In Indonesian context, literacy is defined as the ability to read and write simple Bahasa Indonesia sentences in Latin scrips (Jalal and Sardjunani 2005). Indonesia has a National Social Economic Survey (SUSENAS) which is conducted every year by Indonesian Statistic Bureau (BPS) to collect data on human resources related to indicators of the socio-economics development. In investigating the ability of reading and writing especially in remote rural areas, an interviewer asks respondents to read a simple paragraph in Bahasa Indonesia to prove respondents' literacy. This is considering that Indonesia has 824 ethnic groups which generally have their own local languages. Bahasa Indonesia is a national language that unites *a nation context* of hundreds of ethnic groups

scattered in over 17,500 islands. Therefore, it is a challenge for the government to literate ethnic groups in Indonesia's remote areas.

In further, literacy does not only concern on write text and number's mastery but extends to the ability to make use of media (manuscripts, pamphlets, books, magazines, newspapers, smartphone, etc.) as source of information in certain cultural, social and historical contexts.

Bélisle (2006) categorizes the development of literacy's concept in three models, namely *functional model* where literacy is considered as an individual's ability to master simple technical skills in reading and writing of text and number in certain community. The second is *social-cultural practice model* where literacy is considered as individual's ability to read and write by utilizing sources of information that appropriate with certain historical, social and cultural contexts. This model frames sociolinguistic as a unique contextual approach to certain community. In cultural dimension, literacy involves understanding of attitudes, values, conventions and practices. The third model is *the intellectual empowerment model*, where literacy is considered as a person's ability to extract text and number according to the certain unique cultural and ideology context, which in further transforms the depth and richness of thought capacity.

Media literacy's concept develops when literacy evolves as a socio-cultural practices model, where a literate individual is considered as a person who is able to understand the context of social, historical and culture of a particular society through the available sources of information. When mass media begins to develop, audience is presented with a variety of diverse sources of information. At this stage the ability to understand, negotiate and produce of meanings that appropriate to the cultural context of a particular community is needed.

Media literacy is understood in German as *Medienkompetenz.* Literacy has connotations of "skill" and "competence" in something. Buckingham (2007) argued that a competence-based definition of literacy tends to disregard the social diversity of literacy practices. It only focuses narrowly on information, while neglecting critical approaches. In the case of media literacy, Buckingham cited UK Media Regulation, which understands media literacy as the ability to access, understand, and create communications in a variety of contexts.

Buckingham identified four essential concepts of media literacy, which are still useful in digital media literacy (p. 78):

i. Representation; users of media digital must be able to evaluate all information to which they are exposed through digital media. This is necessary because, like all media, digital media represent the world, which brings certain values and ideologies. Media offer certain interpretations and selections of reality.

ii. Language; digital literacy must involve an understanding of how digital media are constructed and how the communication process is produced in it. Digitally literate people need analytical skills and metalanguage for describing how language functions.

iii. Production; digital literacy involves analytical thinking about who is communicating to whom and why. In the context of young people, they should be aware of why access to social network sites are so kindly given to them "free of charge", and from whom SNSs get the money they need to support their operations.

iv. Audience; digital literacy involves understanding how media are targeted at audiences and how different audiences use and respond to them. Digitally literate people must be aware of their position as audiences, including how they are targeted by commercial interests (both visibly and invisibly) and how SNSs gather information from them.

Gilster (1997) understood digital literacy in general as the ability to understand and to use information from a variety of digital media. It is an essential skill for life in the digital age. Meanwhile, Bawden (2008) defined digital literacy as the essential ability to read and comprehend information in hypertext and multimedia formats. Langham (in Bawden, 2008) stressed the multimedia format, since information may take the form of text, images, sounds, etc.—and certain skills are needed to compile and present them so they can be understood by others.

Moreover, Gilster emphasized that digital literacy as an understanding of how to complement digital resources, which come from multimedia sources such as reference works in libraries, printed newspapers and magazines, radio and television, printed works of literature, and so on. Digital literacy is about ideas and mindsets, with particular skills and competences to elaborate information so that it can easily be understood by others. Gilster identifies four competencies in digital literacy: internet searching, hypertext navigation, knowledge assembly, and content evaluation.

Eshet-Alkalai (2004) argued that digital literacy involves more than the skill to operate software and hardware of digital devices; it also involves a combination of complex cognitive, motor, sociological, and emotional skills, which are used to organize

all digital environments. He proposed that digital literacy comprises of five abilities (p. 94):

i. *Photo-visual literacy,* the ability to "read" pictures intuitively and freely, and to understand the instructions and messages represented visually. People with photo-visual literacy could have the ability to synchronize digital, vocal, and visual stimuli, as well as written text.

ii. *Reproduction literacy,* the ability to combine and integrate pieces of information into a meaningful, authentic, and creative work or interpretation. This ability is very sensitive to values of originality, creativity, and talent; especially in art and academic works, because digital media give people much opportunity to access abundant resources.

iii. *Branching literacy,* the ability to move away from linear data searches, which use certain databases or libraries. People with branching literacy tend to creatively look for alternative sources of information, have a good multidimensional spatial orientation, and not rely on a single source or the same medium in the maze of available information.

iv. *Information literacy,* the ability to filter, evaluate, and use information wisely amid the unlimited exposure of the information superhighway. It requires a sense of skepticism to identify erroneous, irrelevant, and biased information before conclusions, opinions, or models can be constructed from the information.

v. *Socio-emotional literacy,* the ability to avoid the negative effects and benefit from the advantages of digital communication, which involves sociological and

> emotional inner senses in cyberspace. Cyberspace is a jungle of human communication, where one cannot know exactly what is true or false, honest or deceptive, based on good will or ill will.

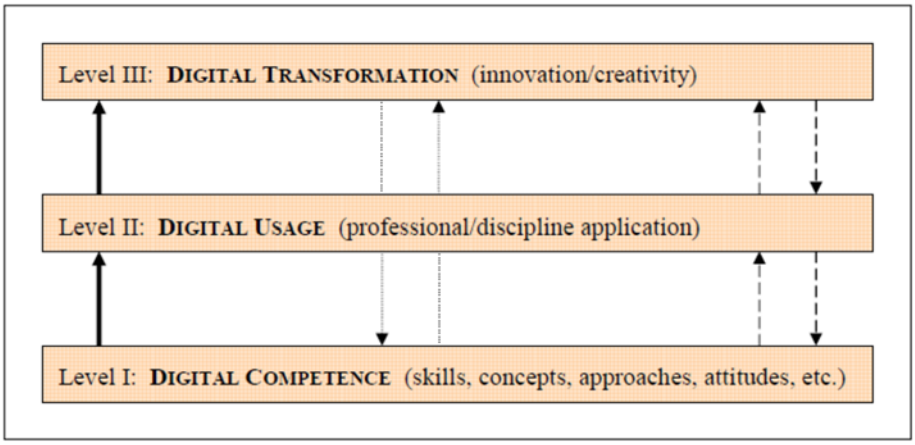
Socio-emotional literacy may be the most complex of all the types of digital literacy described here. It is formed when people are very critical, analytical, and mature, and requires a high degree of information literacy and branching literacy.

Martin (2008) affirmed the digital literacy concepts by Gilster (1997), and argued that digital literacy is not simply the technical skill to operate digital media, but also to critically evaluate what is found on the web and to use it wisely in accordance with one's social context. Martin elaborated digital literacy as the awareness, attitude, and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyze and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others within the context of specific life situations, as well as to enable constructive social action and reflect upon this process. Martin's digital literacy concept may be the most detailed and comprehensive, but at the same time it is the most complicated.

Martin recognized three levels of digital literacy: first, the technical level, consisting of digital competences; second, the thoughtful usage level, which stresses the contextually-appropriate application of digital tools; and third, the critical reflection level, which requires an understanding of the transformative human and social effects of digital actions (digital transformation).

Figure 2.1

Levels of Digital Literacy



(Martin and Grudziecki, 2006, p. 255)

Martin identified three levels of digital literacy:

1. Level 1: Digital Competence is the fundament level, and covers a wide range of skills, including basic visual recognition and manual action skills as well as critical, evaluatory, and conceptual skills, as well as specific attitudes and awareness. At this level, someone is expected to have the ability to find information on the internet, to use word/number processing for making documents, to communicate via email, to create and manipulate digital images, to create presentations, to publish on the internet, to create and use databases, and to master digital learning environments.

2. Level 2: Digital Usage is the application of digital competence within specific and domain contexts, giving rise to a digital corpus specific to individuals, groups, and organizations. Digital usage involves an understanding of certain social and contextual approaches concerned with community learning and practices. At this level, someone is expected to have the ability to use digital

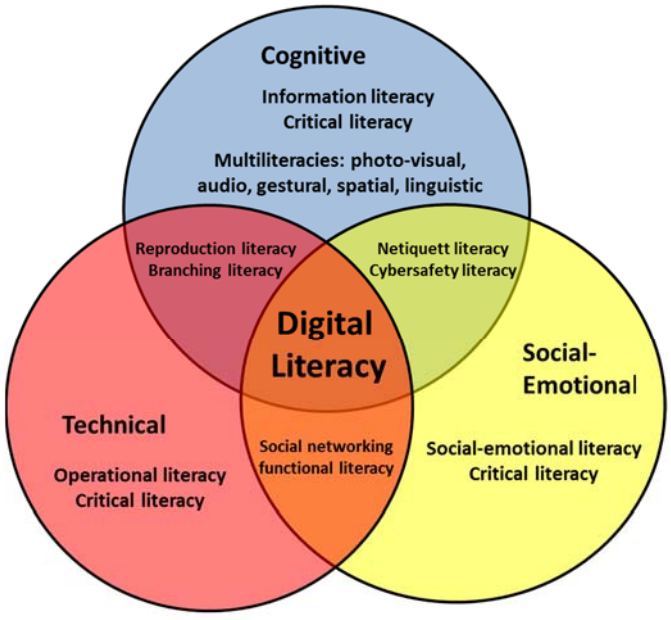
tools to seek, find, and process information and then develop a product or solution that addresses the task or problem.

3. Level 3: Digital Transformation is achieved if/when the digital usages that have been developed enable innovation and creativity, while also stimulating significant change within professional or knowledge domains.

One is recognized as having digital literacy if one achieves at least the second level, i.e. the contextually appropriate application of digital tools. It is not for one to achieve digital literacy along a sequential path, following each stage; the pattern may be random.

Figure 2.2

Elaboration of Digital Literacy



Digital literacy model (Ng, 2012, p. 1067)

Simply elaborated, Ng (2012) argued that digital literacy is the ability to understand technical, cognitive, and socio-emotional perspectives of learning with digital technology, both online and offline. A digitally literate person should be able to adapt to new emerging technologies and easily understand contextual communications as they arise. Ng stated that digital literacy results from three intersecting dimensions: technical, cognitive, and socio-emotional. Accordingly, Livingstone and Brake (2010) considered digital literacy comprehension as important for minimizing risk experiences in online activities.

Table 2.1

Dimensions of Digital Literacy by Ng (2012, p. 1067)

Dimension	Ability	Example
Technical	• to use ICT for learning or working for everyday activities.	Know how to connect earphones, microphones, and USB memory sticks to the output and input slots of a computer precisely
Cognitive	• to think critically in seeking, evaluating, and creating digital information. • to be knowledgeable of the ethical, moral, and legal issues of online transactions	Understand copyright and plagiarism as well as content reproduction issues.
Socioemotional	• to be responsible in using the internet as a tool for communication and socialization • to have respect and use appropriate language and words when communicating with others • to protect individual safety and privacy by securing personal information • to have awareness of when one is being threatened and knowing how to cope with that	to recognize which emails are spam and to whom they must be reported

Regarding the connection between digital media literacy and privacy practices, Park (2011) states that familiarity with the technical aspects of the internet could control privacy behavior in internet activity. For instance, by having knowledge of managing "cookies" on the internet, one can minimize others' ability to take advantage of our data. Furthermore, Boyd (2008) stressed that privacy is not simply about the state of an inanimate object or set of bytes; it is about the sense of vulnerability that individuals experience when negotiating data.

2.3. Privacy in the digital era

Privacy is an issue that affects humanity whenever and wherever. Privacy issues have become more complicated as human civilization has developed. Holvast (2009) distinguished three milestone periods in the development of privacy, namely

i. Between 1891 until before 1970, a period of growing awareness of the importance of privacy and privacy protection. Started from the publication of article *"The Right to Privacy"* in the *Harvard Law Review* on December 15, 1890, by Samuel Warren and Louis Brandei. After that many articles and books were published reviewing privacy. It was cumulated with Alan Westin's *Privacy Freedom* in 1967.

ii. Early of the 1970s until the end of the 1990s, when data protection regulations (such as the European Directive on Data Protection) were implemented in all technological advanced countries.

iii. Early of the 2000s until now, which is marked by how information can be used in the war against fraud, crime, and terrorism.

Holvast argued that privacy issues are strongly linked to technological advances, e.g. from press, instant camera, lie detector, computer, video camera, chip/smart card, Radio Frequency Identification (RFID), global positioning system (GPS), internet, etc. Holvast held that the internet is the most influential invention and tool for data collection, and thus interferes in humans' privacy. Corroborating Holvast, Chen and Shi (2009) noted that the internet has the ability to collect the real-time behavioral data disclosed by its users. Usually users are asked to list their personal information, including name, email address, phone number, etc., before using any website services (for example, Amazon, Facebook, Instagram, etc.). Commonly, the internet gathers users' information using two methods: information acquisition based on technical systems and information acquisition based on user disclosure.

Meanwhile, Altman (1977) and Westin (2003) argued that privacy regulation cannot be separated from the cultural setting of a community. As such, we should first explore the Indonesian cultural setting to know more about its privacy concept. According to Koentjaraningrat (1984, p.111), Indonesian society is known as a collective society that always emphasizes social harmony. Children are taught by their parents from young ages, and are accustomed to playing in groups with their neighbors. This is especially true in rural areas, where children may play around outside the house as they please, and are often joined by other children who live nearby. This activity is usually done after school. Teenage boys usually form groups that travel, work, and have fun together. Meanwhile, urban adolescents also form groups, generally from their school friends, which consist of four to six adolescent males or females. Groups of teenagers are commonly called *"geng"* (gangs), and prioritize togetherness: they may do homework, exchange clothes, snack at

a food stall or in a restaurant, watch movies, go hiking or do other leisure activities together. They also tell each other their secrets, including their interest in and love of the opposite sex, as well as their problems with their parents or their peers. Usually members of these groups keep each other's secrets and are loyal to each other.

For parents in the household (Koentjaraningrat, 1984, p. 441), it is important to establish a good relationship with one's relatives and nearby neighbors. Commonly, as an expression of gratitude after a promotion, birthday, or journey, people will share small gifts—e.g. food—with relatives and neighbors. In cases of misfortune, a family's nearest neighbors give help spontaneously and voluntarily. In mourning, neighbors help prepare all of the equipment for burial as a form of social assistance and empathy for the family. Neighbors also donate money or equipment to alleviate funeral expenses. Commonly people have a *collateral* orientation, one that focuses on respecting and helping one another. This is also corroborated by Hariyono (1993, p. 70) and Magnis-Suseno (1993, p. 173), who have written most Indonesians think that their jobs and material possessions are gifts from God for all people and should be enjoyed together. People, thus, are required to maintain good relations, to share, care, respect, and be tolerant of others *(tepa salira).* We may assume that Indonesia has an open-minded society that emphasizes harmonious social relations. Indonesians consider neighbors their closest relatives, who help them in times of difficulty. Such community ties indirectly erode individual privacy.

Back to the concept of privacy, Margulis (2011) echoed the definition of Westin (2003), that privacy is a basic human need through which individuals adjust their emotional interpersonal interactions on a day-to-day basis. Privacy is dynamic and has non-monotonic functions, meaning that the need for privacy depends on one's social context. Privacy is part of democratic culture, which entitles a person to have a private

space in public life. Westin posited four elements of privacy: (a) solitude, i.e. being free from observation by others; (b) intimacy, i.e. having relaxed and close relations in small groups; (c) anonymity, i.e. freedom for being identified and surveilled in public places and situations; (d) reserve, i.e. the potential to be uncommunicative or to limit disclosures to others, and to have others recognize and respect that desire.

Why does a human need privacy? According Westin, having privacy means

a. personal autonomy, a desire to avoid being manipulated, dominated, or exposed by others
b. emotional release, a release from the tensions of social life such as role demands
c. self-evaluation, an integration of experience into meaningful patterns and exerting individuality on events
d. limited and protect communication, a setting of interpersonal boundaries and protection of personal information

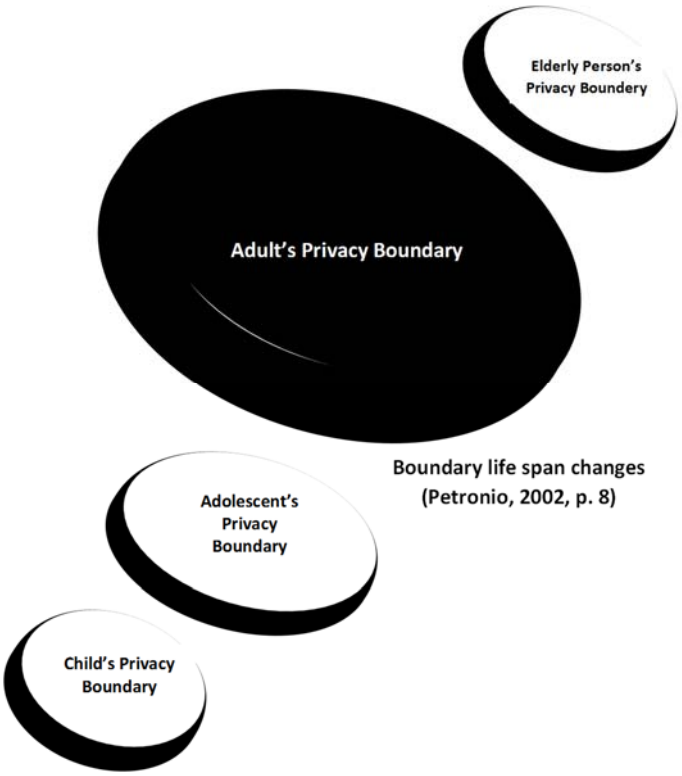
Altman (1977), a social and environmental psychologist, defined privacy as "a selective control of access to the self, involving dialectic, optimization, and multimodal processes" (p. 67). As with Westin (2003), Altman understood privacy as an attitude that emerges dynamically and is dialectically related to interactions in social life. Sometimes people open themselves to others, but at other points they will be closed. This open or closed-person policy will be repeated at certain times depending on one's social problems. Privacy is nonmonotonic, meaning that personal privacy policy is not caused by the same thing every time; rather, mechanisms are dynamic, suiting the psychological needs of the person. Privacy is not just a set of rigid verbal or para-verbal behavior, such as personal

space and territory. Rather, it involves a cultural system that can adjust an individual's privacy mechanisms.

Regarding privacy functions, Altman mostly agreed with Westin that privacy is useful for managing social interaction, establishing plans and strategies for interacting with others, and developing and maintaining self-identity. Furthermore, Altman stated that privacy is not just a physical environment, but also involves a variety of verbal and nonverbal language use as well as environmental and cultural mechanisms. Analyzing privacy must involve a cultural setting, as privacy regulation is a culturally pervasive process.

Figure 2.3

Boundaries over life-span changes



Corroborating Westin and Altman with her Communication Privacy Management (CPM) theory, Petronio (2002) assumes private disclosures are dialectical. People have

choices about revealing or concealing information based on specific criteria and conditions. They believe they have the right to have and regularly access their personal information. Making balance between privacy and disclosure is very important policy to manage our relations with others. Setting open and closed boundaries is a natural communication process. It adjusts the publicness and privacy of individuals. Consequently, CPM theory putts communication at the center of private disclosure because it focuses on the interrelated relationship between conveying or refusing to convey confidential information.

According to Petronio, individuals experience changes in how they build privacy boundaries over the course of their lives. Very young children are considered honest and naïve, willing to disclose things about their families that may be private. Over time, their parents teach them what information is suitable to disclose to whom and when. In adolescence, children's privacy boundaries change according to the complex problems they face. In adulthood, privacy boundaries reach their most complex stage to accommodate the abundance of private information about themselves and others. As individuals become older, their privacy boundaries shrink. Because of health reasons, old people need others to accompany them to doctors appointments. They may need other persons to bathe them, to remind them to take their medicine, to organize their finances, etc.

Peter and Valkenburg (2011) viewed privacy functions as crucial to adolescents' developmental goals. They identified four important and interrelated developmental goals: autonomy, identity, intimacy, and the development of the *sexual-self*. Autonomy is ability of young people to feel, think, and act independently. It includes emotional, cognitive, and behavioral independence in relationship with others; in developing beliefs,

norms, and values; and in decision making. Identity formation, meanwhile, is a feeling of security about who one is and who one will become. Identity development increases self-conception, which emerges in adolescents' traits and attributes. Intimacy refers to adolescents' ability to maintain close, meaningful relationships with others. Finally, the development of the sexual-self is the awareness and acceptance of one's sexual orientation, the development of sexual-efficacy, and the acquisition of sociosexual skills.

Peter and Valkenburg (2011) summarized that privacy contributes importantly to the attainment of adolescents' developmental goals because it ensures that adolescents can learn and practice the skills necessary for them to achieve their goals (p. 224).

1. Privacy is necessary for adolescents' accomplishment of autonomy because it is created through the choice and control of aloneness, the independence necessary for individuation.
2. Privacy is important for adolescents' identity formation, because it provides them with the opportunity for self-evaluation by experimenting with self-presentation
3. Privacy is essential for adolescents' achievement of intimacy because it creates, through protected communications, space for self-disclosure
4. Privacy facilitate adolescents' sexual-exploration by liberating them from moral pressures

In regards to privacy in SNSs, Peter and Valkenburg cited the concept of "public networked" proposed by Boyd (2010, p. 39), defined as "a public that are restructured by networked technology". Technology informs the flow of information in the networked public and shapes both the people's interactions with information and also with other people. Digital technologies have ability to store, duplicate, distribute, and trace

information easily. The content in networked publics cannot easily be controlled, even by the information owners. Therefore, Peter and Valkenburg stated that there is a contradiction between adolescents' involvement in social networking and privacy. On one hand, social networking can help adolescents achieve personal development—e.g. individuation, self-presentation, self-disclosure, and sexual self-exploration—but on the other hand it reveals their private information to the public, where it becomes susceptible to misuse.

Accordingly, Marwick and Boyd (2014) stated the importance of privacy for teenagers in day-to-day activities. Privacy practices could minimize conflict between what youths try to achieve when disclosing or withdrawing information or meaning. Privacy in social network sites cannot be determined and controlled by individuals. In this networked context, it is determined by users, technical mechanisms, and social norms. This means that how people achieve privacy depends not merely on their ability to skillfully operate the internet, but also to interpret information in accordance with social norms.

Regarding privacy practices, Swidler (2001) defined practices as the daily routines that people do without thinking intensively about them, i.e. spontaneously or automatically. Swidler likened practices to individuals' routine or habitual use of their bodies in social routines that they know and can improvise spontaneously. Meanwhile, Petronio (2002) argued social interaction that involves disclosure and concealment of personal information indirectly will build a certain pattern of privacy boundaries. When it is done repeatedly on a regular basis then it will form a certain rule to manage privacy boundaries. Privacy practices, thus, may be understood as routine activities for balancing

between privacy and disclosure in digital networks. These activities are done without thinking intensively, but rather spontaneously or automatically, and could be improvised.

Ziegele and Quiring (2011), meanwhile, highlighted informational privacy, which is closely related to policies about how people control their self-disclosures on SNSs and how people decide to release and withdraw information, as well as spatial and personal restrictions of access to private information. Dienlin and Trepte (2015, p. 286) used the term "privacy behavior" to explain "any behavior which is intended to improve relationships with others, either through self-disclosure restrictions or avoiding interactions with others". Furthermore, Ziegele and Quiring stated that privacy violations occur because of the unwanted and uncontrolled publicness of SNSs. This means that privacy issues happen when users misinterpret the environment of their communication media and/or use the communication media in an inappropriate way. The strongest factors in informational privacy are *autonomy* and *control* in information disclosure. When someone decides to react to another person's SNS posts, it is *autonomy* of expression. However, this feedback is not necessarily under the user's *control*. Through SNSs, people have the autonomy to make their profiles known to others, and will try to show everything positive to maintain social relationships. Tufekci (2008) called this *the need to be seen*.

O'Neill and Dinh (2015) found that teenagers with profiles on SNSs were likely to experience more cyberbullying than their counterparts who lacked such profiles. Teenagers' involvement in cyberbullying tends to be multiplied by their personal mobile media (smartphone or tablet) usage. This is because they are *always-on*, connected with others at all times and in all places.

2.4. Cyberbullying

Before discussing cyberbullying in more detail, it is important to understand "bullying" in an Indonesian cultural context. Unlike English, which distinguishes between violence and bullying, Indonesian interprets these terms with the same word: *"kekerasan"*. According to the the Official Dictionary of Indonesian Language (KBBI), *kekerasan (ke-ke-ras-an)* means (1) *"perihal yang bersifat/berciri keras"* (something with a hard nature or character); (2) *"perbuatan seseorang atau kelompok orang yang menyebabkan cedera atau matinya orang lain atau menyebabkan kerusakan fisik atau barang orang lain"* (an action by a person or group of people that causes the injury or death of another person or causes physical damage or other people's possessions); (3) *"paksaan"* (coercion). The term *"kekerasan"* can be used as an adverb or a noun, such as in *kekerasan dalam rumah tangga* (domestic violence), *kekerasan di sekolah* (school bullying), *kekerasan simbolik* (symbolic violence), *kekerasan di dunia kerja* (violence in the workplace), *kekerasan struktural* (structural violence), *kekerasan di dunia maya* (cyberbullying), and so on. However, recently the word "bullying" has become known in Indonesian through the loan word *"bully"* or *"buli"*, as in the sentence *"seorang murid kelas satu SMP di-bully oleh kakak kelasnya"* ("a seventh-grade student was bullied by his senior").

In general, Indonesian culture considers harmony and respect for others the most important things in social relations. Harmony is created by helping others, as in the specific term *gotong-royong.* This moral order has been shaped by hundreds of years in the plurality of Indonesia society. Traditionally, Indonesian society perceives violence as not commendable. Emotions that can lead to conflict are prevented wherever possible. Magnis-Suseno (1984, p. 40) stated that heated disagreements in Indonesian society

usually arise because of friction between individuals' or groups' interests. Indonesian society is equipped with institutions of social control and norms, customs, as well as formal laws for preventing social conflicts. Indonesians, especially those in Java (the Javanese), know and understand a norm of *mawas diri* or self-introspection/control, which has been passed on by their predecessors since before they were born. Lanus (2010) interpreted *mawas diri* as the individual capability to keep oneself in order, rather than becoming trapped by self-conceit, arrogance, greed, power lust, and sexual lust. *Mawas diri* is very useful for keeping control of one's emotion when facing problems.

However, violence is far from an unknown occurrence in Indonesia. In everyday life, violence is sometime carried out to enforce discipline. Suppose, for example, a mother tweaks her son's ear when the boy is unwilling to do his homework. Such action is deemed reasonable and not excessive in enforcing discipline. Ahimsa-Putra (2001) investigated the physical violence experienced by children in six of Indonesia's provincial capitals (Medan, Palembang, Semarang, Surabaya, Makassar and Kupang). He found that the two cities in Java (Semarang and Surabaya) had the highest quantity and quality of physical violence. Ahimsa-Putra associated the violence with the level of complexity of life in large cities, especially those in Java. Children experienced the most violence in their own homes, followed by at school and in public places. The perpetrators of violence were the ones who interacted most often with the children, i.e. mothers, fathers, friends, and teachers.

Ahimsa-Putra (2001) explained that violence against children has cultural roots, including:

1) The high expectation for such attributes as courage, perseverance, fortitude in facing life problems, especially as associated with the concept of a *real man*;

2) The notion that children should obey their parents; whatever is said by a parent, a child must obey;

3) The assumption that a child is an *asset* of their parents, and thus parents should guide their child's behavior and ensure it meets their expectations;

4) The assumption that teachers are educators who always know how to educate children well, and thus never err.

Violence also stems from the asymmetric relationships between children and adults, which are culturally instilled in Indonesians from an early age. If a child is required to respect parents, the child is placed in a weaker position. Unequal relationships between adults and younger children results in violence against children.

Violence does not only cause physical discomfort, but also psychological discomfort. Djawanai (2001) specifically examined the violence that is embedded in language, including in the mass media, news, movies, jokes, and everyday speech events. Language may be used to commit violence against others in the form of verbal attacks, such as by accusing, intimidating, cheating, coercing, defaming, provoking, and harassing others. Commenting on someone's disability could cause a person to feel offended, humiliated, angry, or even inferior. As such, it can be classified as physical and psychological violence. Djawanai (2001) noted that Indonesian media frequently write news in very provocative ways. As an example, he indicated that, when soccer team "A" defeats soccer team "B" in a match, the media will provocatively try to attract readers/ viewers' attention with the title *"Soccer team "A" embarrasses team "B", scoring 4-0"*. They may also use words such as roll up, destroy, crush, chop, throw, etc. as replacements

for *defeat*. The more violent a news headline's nuance, the more interesting and well-liked it is by readers and viewers.

More specifically, in the context of bullying in social relations, Olweus (1993, p. 9) defined bullying or victimization as repeated and intentional negative actions done to somebody, either verbally (threatening, taunting, teasing, calling names) or physically (hitting, pushing, kicking, pinching, restraining). Currently, *traditional bullying* is extending its scope, being found not only at school but also within cyberspace. Cyberbullying is broadly defined as the use of the internet or other digital communication devices to insult or threaten someone. Cyberbullying is understood as deliberate intimidation that can happen to anyone using electronic communication tools, such as instant messaging (IM), e-mail, or SMS (texting) (Swartz, 2005). Patchin and Hinduja (2006) defined cyberbullying as intentional and frequent physical, psychological, emotional, or relational aggressions against others through computers, cellular phones, and other electronic devices. Erdur-Baker (2010) clarifies that the frequent use of internet-based communication tools has correlations with both cybervictimization and cyberbullying. Juvonen and Gross (2005), meanwhile, find that cyberspace is an extension of the school-ground, where bullying has traditionally taken place.

Li (2007) examined cyberbullying and its correlations with traditional bullying, culture, gender differences, school achievement, and technology use in adolescents. The development of communication media, especially internet-based media, has granted adolescents wide access to information. Li, citing Pellegrini and Bartini (2000, p. 703), argued that early adolescence is considered a peak "brutalization period", when individuals try to identify themselves with their peer groups. Meanwhile, Ybarra et al. (2005, p. 10) identified 10–17-year-olds as "troubled youth" because of their complex

situations, which often include depressive symptoms. In developing social networks, adolescents have the potential to face peer victimization and aggression.

Cyberbullying involves the use of information and communication technologies such as email, chats room, blogs, and instant message to support the deliberate and repeated hostile behaviors of individuals or groups that are intended to harm others. Li compared cyberbullying behavior in seventh-grade children in China and Canada. Li found that Chinese students were more likely to be cyber victims than their colleagues in Canada. The anonymity of cyberbullying encourages victims to retaliate against others, because consequences are lesser. Most victims and bystanders keep quiet, because they are unsure that adults would help them stop the cyberbullying. Traditional bullying experience has a correlation with students' cyberbullying. Undetected cyberbullying can promote students' bullying in school. If bullies have difficulty bullying others directly, they may resort to cyberbullying as a form of revenge.

Willard (2007, p. 5) detailed the types of actions that could be classified as cyberbullying, namely

a. Flaming; short, heated arguments using offensive, rude, and vulgar language, as well as insults and threats between two or more individuals. Generally, flaming uses public communication environments such as discussion boards (forums), chat rooms, games, and SNS comment areas. Angry arguments could be continued through private communication, such as by email, instant message (IM), SMS, and MMS.

b. Harassment; offensive, repeated messages targeted at an individual, either using public or private communication channels such as discussion boards,

chat rooms, email, IM, or SMS. Harassment is longer-lived than flaming. Usually, messages convey angry, rude, vulgar, and offensive content that is hurtful to the target. This conflict is usually one-sided; the target may or may not respond in kind to the harasser.

c. Denigration; harmful and cruel rumors or gossip (untrue speech) that is deliberately spread to interfere with the target's friendships or damage the target's reputation. In this case, the messages are received not by the target, but by friends, relatives, family, and others surrounding the target. These messages, either verbal or non-verbal (digital images), may be posted to discussion groups in which the target has participated.

d. Impersonation; impersonation occurs when a cyberbully has the opportunity to make use of the target's communication channels by hacking into the target's account or getting the target's password, then posting material that reflect badly on the target, with the ultimate goal of interfering in the target's friendships or damaging the target's reputation. The exchange of passwords among youth, often in the name of 'true-friendship', gives cyberbullies the opportunity to access targets' accounts.

e. Outing; the public posting, sending, or forwarding of someone else's intimate personal information (text, pictures, videos), which may potentially be embarrassing, to others. Commonly, a cyberbully may obtain the target's intimate personal information and then forward it publicly.

f. Exclusion; the removal of a person from group membership of segregation of persons (creation of in-groups and outcasts). For adolescents, exclusion from

game, IM, blog, and other groups (both offline and online) may be considered the ultimate rejection.

g. Cyberstalking; repeatedly sending harmful and intimidating messages, which are extremely offensive and followed by threatens; it may even involve extortion. Cyberstalkers usually intend to damage the reputations of their targets. In cases where cyberstalkers have intimate personal information about their targets, they may use or threaten to use it in a highly embarrassing manner.

A further study by Holt et al. (2014), who examined cyberbullying among Singapore's primary and secondary school students, found that access to technology, online routine behavior, and suitable targets were significant predictors of cyberbullying. Singapore's students access the internet more frequently at home than at school. They have a higher likelihood of being cyberbullied. Students engaged in traditional bullying tends to also be involved in cyberbullying. Where bullying victims are unable to defend themselves from traditional bullying, they may use cyberbullying to fight back. Secondary school students are involved more frequently in cyberbullying than primary school students, which may be attributed to primary students having less internet access than secondary school students. Chat rooms, blogs, and instant messages increase the risk of cyberbullying. This research found that the use of mobile internet platforms by students in Singapore is very high, both at home and at school; in both situations, adult supervision is limited.

Another examination of cyberbullying in Asia was conducted by Zhou et al. (2013), who stressed that the causative factors of cyberbullying in Western countries cannot simply be applied generally to Asian countries, which have different cultural and social relations. Zhou et al. stated that cyberbullying research conducted in China led to the finding that culture is a strong predictor of cyberbullying and cybervictimization (Li, 2007; Huang and Chou, 2010). Previous research found that Taiwanese students usually take no action after being victimized online because of the cultural imperative to avoid conflict and maintain harmonious relationships within their groups. Zhou et al. examined cyberbullying among Chinese students in the tenth, eleventh, and twelfth grades, seeking to explore effective measures for preventing and intervening in cyberbullying rooted in Chinese culture. Zhou et al. found that, in general, students in mainland China are frequently involved in cyberbullying, and male students are more often the victims and perpetrators of cyberbullying than female students. Zhou et al. state that this is related to Chinese culture, which demands a man must be active, brave, and independent. Boys are told that it is not brave to be aggressive towards or bully girls. Meanwhile, women are culturally expected to be gentle, polite, and kind. Despite high levels of supervision in schools and at home, students' internet access remained high, because generally they used their smart phones to access the internet outside of school and home. In conclusion, Zhou et al. urged parents and teachers to restrict internet usage at home and at school. Although this might not protect children from cyberbullying, it could reduce the possibility.

2.5. Social mediation of cyberbullying

Related to the importance of mediation, i.e. parents and teachers' monitoring and restricting children's internet usage (as recommended by Zhou et al. above), the same suggestion has also been made by several experts seeking the prevention and reduction of children's exposure to cyberbullying. Parents and teachers are the closest adults to adolescents, and thus can inhibit the spread of cyberbullying (Kwan and Skoric, 2012; Park et al., 2014). Even O'Neill and Dinh (2015) argued that parents are the primary source of social support when adolescents have upsetting experiences on the internet. In case parents are not as computer savvy as their children, schools—through teachers—are expected to enlighten parents about the nature and forms of cyberbullying. Schools should also ensure that students use school networks and mobile devices in ways that do not cause harm to others (Beale and Hall, 2007).

Traditionally and culturally, teachers have a highly respected profession in Indonesian society. Teachers are considered well-educated persons, able to enlighten society with their wisdom and knowledge. In Indonesian, teachers are called *guru*, which has been adapted from Sanskrit. In traditional Javanese, the honorific *Ki* is used for male teacher and N*yi* for female teachers. Schools are seen as places where an *among* system can be developed. *Among*, or *momong* in Javanese, means educating. As such, schools are institutions where pupils learn wisdom, knowledge, and their application (Tsuchiya, 1975).

Related to social mediation of media usage, Warren (2001) emphasized parental involvement in monitoring, controlling and communicating children's media use. More specifically, parental mediation of children's media use refers to "any strategy parents use

to control, supervise, or interpret media content" (p. 212). Furthermore, Livingstone and Helsper (2008) explained that parental mediation is a dynamic process in a child's socialization in the family, one that contributes to the creation of family values, practices, and media literacy. Parental mediation could be applied through three strategies (p. 583):

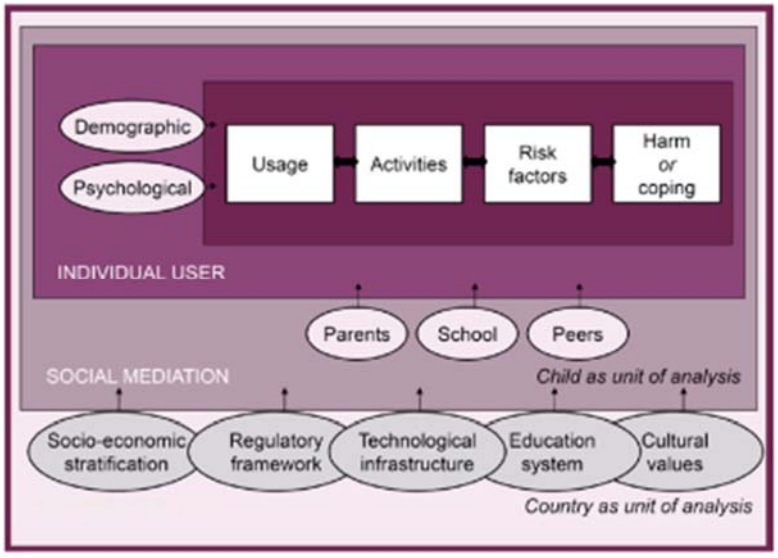
1. Active mediation is applied by actively discussing media content while the child is engaging with (watching, reading, listening to) the medium.
2. Restrictive mediation is applied by rules restricting the use of the medium, including restrictions on time spent, location of use, or content (e.g. pornography, violence) without any discussion of the meanings or effects of content.
3. Co-using requires parents to be actively engaged with the medium being used by the child and to share experiences with the child regarding what is received from the medium

In all situations, parental mediation in internet use requires a certain level of digital literacy on behalf of parents. On the other hand, friends usually have completely different roles in media affairs. While parents try to restrict risky media use or stimulate critical media content, friends might promote experimental media use and provoke adolescents to see what they "can do" and "can't do" on the internet (Nikken and de Graff, 2013).

2.6. The study's framework

Figure 2.4

EU Kids Online Model



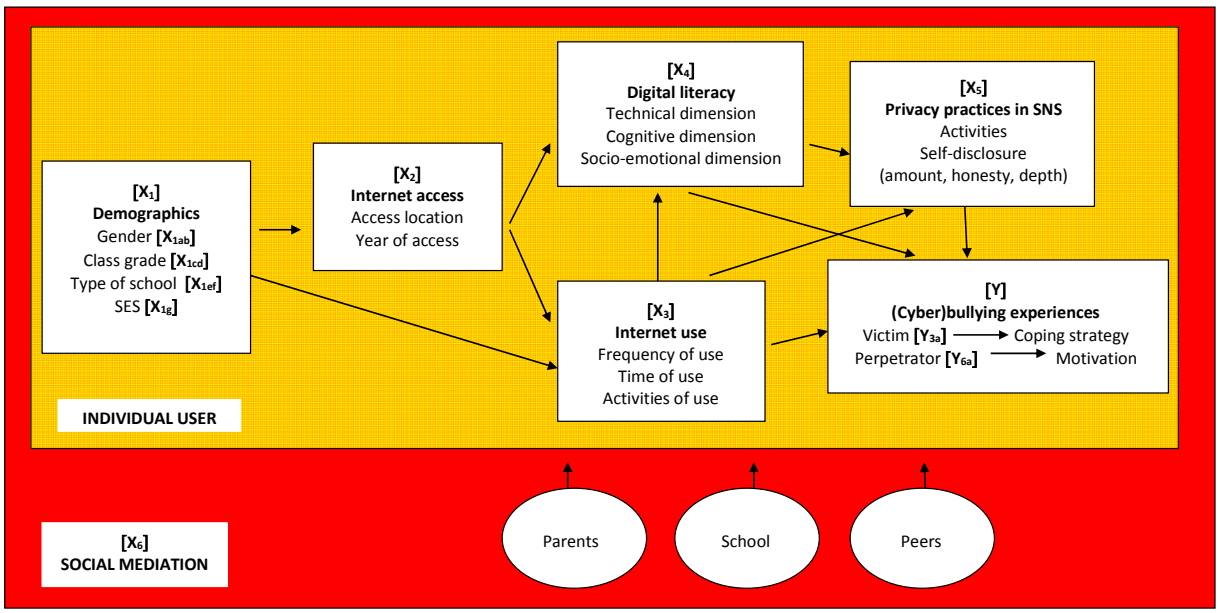
(Livingstone and Haddon, 2012, p. 10)

This study is intended to deepen the findings of EU Kids Online and its study of children, risk, and safety on the internet. However, we limit ourselves to individual users' psychological and social processes in coping with cyberbullying. The exploration begins with the scope of adolescents' internet use: devices, location, and amount of time. It then explores digital literacy in detail, developing the "skill" variable of EU Kids Online. Activities are related to all of adolescents' positive and negative internet experiences: learning, creating, playing, trying new things, and even bullying others. Privacy practices are related to how adolescents use SNSs and disclose themselves. For the risk factor variable, this study uses adolescents' cyberbullying experiences. Meanwhile, for the harm and cope variable, this study examines how adolescents face aggressive cyberbullying, either by themselves or with the support of others. In the context of social mediation, we

explore how parents and teachers support and monitor adolescents' access and use of the internet, whether they are aware of problems experienced by adolescents during internet use, and whether they are aware of the possibility that adolescents may experience cyberbullying.

Referring to the actual problems of risk and internet safety in Indonesia, we are adjusting some variables from the EU Kids Online model for predicting and contributing an internet safety policy which is suited to Indonesia. The following diagram depicts the framework of this study. Each variable is explained in more detail in Chapter 3.

Figure 2.5
Variables Relations



Adapted from EU Kids Online (Livingstone & Haddon, 2012)

CHAPTER 3

Research Design and Method

3.1. Conceptual and operational definition

This research investigates the interplay between internet access, internet use, digital literacy, privacy practices, cyberbullying and social mediation (peer groups, parents, and schools' control of internet activities), as well as demographic variables (gender, socioeconomic status, type of school, grade). The online questionnaire used, completed through Unipark, was based on the EU Kids Online questionnaire 2010/2011. It was adjusted as necessary for the objectives of this study and the problems of risk and internet safety in Indonesia. The following chapter presents the conceptual and operational definitions of the variables in this study.

3.1.1. Demographic

The demographic variables consist of several dimensions describing the respondents' social backgrounds. These are

1. **Gender.** Gender affects adolescents' internet access and use. Weiser (2000) and Livingstone et al. (2011) found no significant difference between males and females in terms of internet access opportunities, but significant differences in what they access. Respondents were asked to answer the closed question "Please identify your gender ... female or male". To code respondents' answers, a nominal scale of "1" for female and "2" for male was used.

Please identify your gender ...		
A	Female	1
B	Male	2

2. **Grade** identifies the school level of the respondent: Junior High school (SMP) or Senior High school (SMA). Pellegrini and Bartini (2000, p. 703) stated that early adolescence is considered the peak of the "brutalization period", wherein individuals try to identify themselves according to their peer groups. UNICEF (2011, p. 6) categorize adolescence in two vulnerable groups by age, i.e.

   a) Early adolescence (age 10–14), a period when children's physical development affects their emotional development. They tend to be impulsive, take risks, and to be uncritical in their thinking. They might become victims of bullying, or participate in bullying. They also might still be confused about their own personal and sexual identity.

   b) Late adolescence (age 15–19), a period when major physical development is still ongoing. The development of analytic capacity and reflective thinking skills lead to the emergence of the ability to evaluate risk. This period is also marked by the strong influence of peer groups. They deal with anxieties that come from cultural and media stereotypes about body weight and ideal body shape. They are tempted frequently to deride each other and fall into eating disorders such as anorexia and bulimia.

   Early and late adolescence coincides with junior and senior high school age in Indonesia (Grade 7 to Grade 12). "In which grade are you in school now?" was used as a closed question for respondents. An ordinal scale was used to code respondents' answers: "1" for Grades 7–9 (SMP) and "2" for Grades 10–12 (SMU).

In which grade are you in school now?		
A	7	1
B	8	1
C	9	1
D	10	2
E	11	2
F	12	2

3. **Socioeconomic status (SES)** is defined as the relative position of individuals or families in the social hierarchy, based on access or control of wealth, prestige, and power. SES is often operationalized by identifying the latest education level, professional prestige, and family wealth (Mueller & Parcel in Caro & Cortez, 2012). SES is regarded as one factor that influences the quality and quantity of internet access (Livingstone et al., 2011). Respondents are asked to identify the latest education level and occupation of their parents. Both answers are indexed using the "*Studie zur Gesundheit von Kindern und Jugendlichen in Deutschland (KiGGS)*" SES Index (Lampert et al., 2014). The following ordinal scale is used to code respondents' answers:

Table 3.1

Parents' education level coding

(Mueller & Parcel in Caro & Cortez, 2012; Lampert et al., 2014)

Education Level	Index
A. Never attended school	1
B. Did not finish elementary school	1
C. Finished elementary school	2
D. Finished junior high school	3
C. Finished senior high school	4
E. Finished associate degree	6
F. Finished bachelor/master/doctoral degree	7

Table 3.2

Parents' occupation level coding

(Lampert et al., 2014)

Occupation	Classification	Index
Workers	A. Unskilled worker	1
	B. Semi-skilled worker	2
	C. Trained or skilled worker	2
	D. Farmer/cooperative farmer	2
	E. Foreman	3
	F. Other worker	2
Office/technical employee	G. Office/technical employee with simple duties	3
	H. Office/technical employee requiring some qualifications	4
	I. Office/technical employee in industry	4
	J. Office/technical employees requiring high qualifications	6
	K. Executive with extensive leadership activities	7
	L. Other office/ technical employee	4
Civil Service	M. Civil service in entry-level position	3
	N. Civil service in mid-level position	4
	O. Civil service in top-level position	6
	P. Civil service in senior executive position	7
Self-employed	Q. Self-employed with up to 9 employees	5
	R. Freelance / self-employed academic / artist / writer	6
	S. Self-employed with 10 or more employees	7
	T. Other self-employed	4
Others	U. Unemployed	1
	V. Student	1
	W. In apprenticeship	1
	X. In vocational training	1
	Y. University student	1
	Z. Helping family members (e.g. househusband/wife)	3

4. **School types**; public and private school are the common school classifications in Indonesia. The 1945 Constitution of Indonesia, Article 31, requires the government to organize a national education system that guarantees every citizen access to an education. The implementation of the national education system may involve non-government parties with a concern in education; these may be based on religion, social, and cultural communities and seek the benefit of society (Law No. 20 / 2003, Article 55). Topcu et al. (2008) found that, in Turkey, students from private schools—most of whom come from families with higher SES levels—have a higher level of internet use than students from public schools—most of whom come from families with lower SES levels. In this study, respondents were asked to identify what type of school they are attending now (public or private). The following nominal scale was used to code respondents' answers: "1" for public and "2" for private.

Please identify in which school type you have your education now...	
Public school	1
Private school	2

3.1.2. Internet access

Accessibility refers to the possibility or ease with which one can reach certain physical facilities, information, or services to improve the quality of life of every human being (Busselle and Shrum, 2003; Piccolo et al., 2007: 363). In ICT, Piccolo et al. state that accessibility is "directly related to usability and quality of use of computer systems". Meanwhile, Brussee and Hekman (2009) mentioned that SNSs are highly accessible media, as they are available to many participants who may supply

information. In this study, internet access variables included "when did the respondent first access the internet", "where does the respondent usually access the internet", and "which kinds of devices does the respondent use to access the internet". Regarding where respondents access the internet and what kinds of devices they use to access internet, respondents could choose more than one answer, with the scores accumulated along a total score of 1–3=1, 4–6=2, ≥7=3. An ordinal scale was also used to code "since when have respondents accessed the internet".

Which devices do you use to access internet? (Tick all that apply)	
A desktop computer	1
A laptop computer	1
A mobile phone that is not a smartphone	1
A smartphone	1
A tablet	1
An e-book reader	1
A games console	1
A television set	1
A smartwatch	1
A Global Position System (GPS)	1

3.1.3. Internet use

Internet use refers to the internet exposure of users, and can be traced through amount of use, duration of use, and types of use (Papacharissi and Rubbin, 2000 and Livingstone et al., 2011). This includes intensity, frequency, and activities in internet use. The following scale was used to code how often, how long, and what activities respondents do when they access the internet.

How often do you use the internet?	
Never	1
Hardly ever	2
Once or twice a month	3
Once or twice a week	4
Every day or almost every day	5
Several times each day	6

3.1.4. Digital literacy

Digital literacy is the awareness, attitude, and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyze and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others within the context of specific life situations, as well as enable constructive social action and reflection upon this process (Martin, 2008). Accordingly, Ng (2012, p. 1067) synthesizes three dimensions of digital literacy: technical, cognitive, and social-emotional. In simple language, Ng postulates that the digital literate person should be able to

1. carry out computer-based operations and access resources for everyday use
2. seek, identify, and assess information effectively for the purpose of research and content learning
3. select and develop competency in the use of the most appropriate technological tools or features to complete tasks, solve problems, or create products that best demonstrate new understandings
4. behave appropriately in online communities and protect oneself from the harm of digital enhanced environment

Digital literacy is not an easily measured variable, as mastery of a skill can be proven if there is direct observation of respondents. This study adopted the self-report measure used by EU Kids Online (Livingstone et al., 2011) to measure respondents' level of digital literacy. It was combined with the "capabilities of digital literate persons" conceived by Ng (2012). The self-report approach includes

1. Range / depth of online activities; since digital skills could be developed through *trial and error*, identifying what activities are carried out by respondents when browsing the internet could identify their digital skill level indirectly.
2. Self-efficacy (Bandura, 1982); an individual's personal assessment of how she/he can solve the problems she/he faces in certain situations. Self-efficacy could determine how persistently and diligently someone faces a problem. In this case, respondents are asked, "how good you are at using the Internet", "how true is it for you: I know more about the internet than my parents". Such questions are also revealing of respondents' confidence in their abilities/ skills.
3. Critical skill; at the core of digital literacy competence, the ability to behave appropriately in online communities will be presented or not. As an example, respondents are asked about whether they compare different websites to determine if information is true.

A Likert scale was used to code respondents' answers: "1" for "strongly disagree", "2" for "disagree", "3" for "neither agree nor disagree", "4" for "agree", and "5" for "strongly agree". For technical-skill questions, respondents answered with the options "no" and "yes", which were scored "0" and "1". These scores were accumulated into three categories: 1–3=1, 4–6=2, ≥7=3.

Please indicate how accurate the following statements are when thinking about how you use the internet…					
	Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
I know more about the internet than my parents	1	2	3	4	5
ICT enables me to finish my school projects and other learning activities better	1	2	3	4	5
There are lots of things on the internet that are good for youths of my age	1	2	3	4	5
I am more motivated to learn with ICT	1	2	3	4	5
I find it easy to find a website I have visited before	1	2	3	4	5
The internet allows me to explore my creative hobbies (e.g. create start-ups, search for designs for my clothes, etc.)	1	2	3	4	5
I do not just share information I get from SNSs to others	1	2	3	4	5
I always check the profile of someone who proposes becoming my "friend" on SNSs	1	2	3	4	5
I do not just copy and paste articles I need for my school assignments	1	2	3	4	5
I frequently obtain help with my school work from my friends or my teachers over the Internet e.g. through Skype, Facebook, blogs	1	2	3	4	5
I tend to be careful when posting comments on SNSs	1	2	3	4	5
I give much consideration if someone I know on SNSs asks to meet	1	2	3	4	5
I compare different websites to determine if information is true	1	2	3	4	5

3.1.5. Privacy practices

According to Altman (1977, p. 67), privacy is "selective control of access to the self, involving a dialectic, optimized, and multimodal process". It dynamically and dialectically emerges in interactions in social life. Sometimes people open themselves to others, but at other points they are quiet. As the process is dialectical, a person's

decision to be open or closed will be repeated at certain times depending on their social problems. Privacy is part of the culture of democracy, which entitles a person to have a private space in public life. Meanwhile, Petronio (2002) emphasized that making balance between privacy and disclosure is very important policy to manage our relations with others. Setting open and closed boundaries is a natural communication process. It adjusts the publicness and privacy of individuals.

In Indonesian context, commonly community ties indirectly erode individual privacy. Indonesia has an open-minded society that emphasizes collectivity and harmonious social relations. Sharing of material and non-material things are done to maintain social collectivity. People are required to maintain good relations, to share, care, respect, and be tolerant of others *(tepa salira)* (Koentjaraningrat, 1984; Hariyono, 1993; Magnis-Suseno, 1993).

In relation to privacy in social networking activities, Ziegele and Quiring (2011) highlighted informational privacy, which is closely related to policy on controlling self-disclosure on SNSs, how people decide to release and withdraw information, and spatial and personal restriction of access to private information. Peter and Valkenburg (2011) found a contradiction between adolescents' involvement in social networking and privacy. On the one hand, social networking can help adolescents achieve personal development—e.g. individuation, self-presentation, self-disclosure, and sexual self-exploration—but on the other hand it reveals their private information to the public, where it becomes susceptible to misuse. Considering the specific Indonesian privacy context and the contradiction of adolescents' involvement in social networking, we applied the following scale for respondents' answers: "1" for "never", "4" for "rarely", "5" for "sometimes", "3" for "often", and "2" for "always or almost always"; this means

the highest value indicates a “balance” between making use of the opportunities of social networking and protecting one’s privacy.

Meanwhile personal information, according to Huffaker and Calvert (2005), include first name, full name, address, age, birth date, email address, link to personal web page/other personal contacts, and real location. Dimensions of privacy practices include amount, honesty, and depth of personal information (Krasnova et al., 2009).

In this variable we measure the adolescents’ balance of privacy and disclosure in their activities on SNSs. When asked what SNS accounts they have and what personal identities they disclose in SNS accounts, respondents could choose more than one answer, with the scores accumulated into three categories: 1–3=1, 4–6=2, ≥7=3.

Do you ... And how often?					
	Never	**Rarely**	**Sometimes**	**Often**	**Always or almost always**
share "your status" when there is anything to say?	1	4	5	3	2
share what's going on in your life (to keep your friends updated)?	1	4	5	3	2
share your current location in real time?	1	4	5	3	2
share your new pictures/videos?	1	4	5	3	2
update your profile when there is something new?	1	4	5	3	2
share information which you thought interesting	1	4	5	3	2

3.1.6. Cyberbullying

According to Smith et al. (2008), cyberbullying is defined as 'an aggressive act or behavior that is carried out using electronic forms of contact by a group or individual

repeatedly and over time against a victim who cannot easily defend him or herself'. From this concept, cyberbullying can be interpreted as an aggressive attack using electronic devices (ICTs), which involves an imbalance of power between the perpetrator and the victim.

Juvonen and Gross (2005), Li (2007), Livingstone et al. (2011), and Holt et al. (2014) have shown that cyberbullying is an extension of traditional bullying, which adolescents experienced previously. Therefore, we asked also whether respondents had experiences not just as victims but also as perpetrators of bullying. If they had acted as perpetrators, we asked what their motive was. The dimensions of cyberbullying in this study refer to Willard (2007), namely: flaming, harassment, denigration, impersonation, outing, exclusion, and cyberstalking.

In observing experiences with cyberbullying and how respondents cope with them, the word "cyberbullying" was not used, to avoid biased answers. Cyberbullying practices were outlined descriptively in Indonesian, to ensure they were easily understood by respondents.

For questions about what kinds of cyberbullying and cyberbullying media are used, respondents had the options "no" and "yes", which were scored "0" and "1". The scores were accumulated into three categories: 1–3=1, 4–6=2, ≥7=3. In order to measure the frequency of bothering experiences the following scale was used:

In the past 12 months, have you seen or experienced something on the internet that has bothered you in some way?	
Never	1
Once	2
2–4 times	3
5–7 times	4
8–10 times	5
More than 10 times	6

3.1.7. Social mediation

In this study, the concept of social mediation is adapted from the concept of parental mediation, which is defined as "any strategy parents used to control, supervise, or interpret media content" (Warren, 2001, p. 212). Livingstone and Helsper (2008) elaborated parental mediation as a dynamic process through which children are socialized in the family, which contributes to the creation of family values, practices, and media literacy. Mediation is about parents' monitoring, controlling and communicating children's media use. In their SNS activities, adolescents are always interconnected with their peers, including at home and at school. Occasionally, teachers may inform students about class assignments through "class-groups" on SNSs or instant messaging applications. As such, in this study parental mediation is expanded to cover social mediation, which involves teachers and peer groups. Social mediation is observed in three dimensions:

1. Active mediation, applied by actively discussing media content while adolescents are engaging with (watching, reading, listening to) the medium.
2. Restrictive mediation, the determination of rules to restrict medium use, including restrictions on time spent, location of use, and content (e.g. pornography, violence) without discussing the meaning or effects of the content.
3. Co-using, in which parents/peers/ schools actively engage with the medium used by adolescents and share experiences with youths on what they get from the medium.

Therefore, in this study we asked respondents whether the three main mediators provide social support and help them cope with problems on the internet. For the question about from whom respondents receive internet safety information, respondents could choose more than one answer. The scores were accumulated into three categories: 1–3=1, 4–6=2, ≥7=3. In addition, the following items were used to measure the frequency of different forms of mediation:

Which of the following things, if any, do your parents sometimes do with you?					
	Never	**Rarely**	**Sometimes**	**Often**	**Always or almost always**
Talk to you about what you do on the internet	1	2	3	4	5
Sit with you while you use the internet (watching what you are doing but not really joining in)	1	2	3	4	5
Stay nearby when you use the internet	1	2	3	4	5
Encourage you to explore and learn things on the internet on your own	1	2	3	4	5
Do shared activities together with you on the internet (e.g. give comments on FB/WhatsApp/BBM, etc.)	1	2	3	4	5

The questions above are only examples meant to show how each variable was explored. The comprehensive questionnaire and coding system are included in the appendix.

3.2. Hypotheses

This section presents the hypotheses of this study. Previous research has shown the connection between demographic factors and internet access. Boys and older children access information technology (computer and internet) earlier/better than girls

and younger children (Durndell and Haag, 2002; Jackson et al., 2007; Calvert et al., 2005; Gross, 2004; Livingstone and Helsper, 2009). Hendriyani et al. (2012) found that boys in Indonesia use and spend more time with electronic media than girls, especially for recreation, such as watching television or playing electronic games. As such, we propose the following hypothesis:

H1: There is a difference between male **[X_{1a}]** and female **[X_{1b}]** students in internet access **[X_2].**

H2: There is a difference between male **[X_{1a}]** and female **[X_{1b}]** students in internet use **[X_3].**

Meanwhile, Topcu et al. (2008) found that students from private schools in Turkey, who mostly come from families with higher SES levels, have higher internet usage than students from public school, who come from lower SES levels. Private school students access internet from their homes more often than their colleagues from public schools. Meanwhile, public school students access the internet from internet cafés or their schools. More private school students do homework and chat on the internet than public school students. This leads to the following hypothesis:

H3: There is a difference between students from private schools **[X_{1e}]** and students from public schools **[X_{1f}]** in internet access **[X_2].**

H4: There is a difference between students from private schools **[X_{1e}]** and students from public schools **[X_{1f}]** in internet use **[X_3].**

Socioeconomic status (SES) is considered an important factor for accessing information technology. Families with a high economic status, as well as parents with good education and occupations, might enable children to have better experiences with information technology. Meanwhile, children who cannot access information technology at their own homes make use of information technology at their schools and friends' homes (Facer and Furlong, 2001). People with higher socioeconomic status use better technical equipment and tend to have a better opportunity to access internet. For instance, people who have good broadband internet access are more willing to gain internet advantages than people with slow internet connections, who must wait for pages to load (Zillien and Hargittai, 2009). SES is considered an important factor in enhancing internet skills. With higher SES levels, people have the privilege to spend more time than users from lower SES levels (Facer and Furlong, 2001; Zillien and Hargittai, 2009). This leads us to propose the following hypothesis

H5: SES **[X_{1g}]** has a positive correlation with internet access **[X_2]** and internet use **[X_3].**

How long someone has known the internet and how frequently someone uses the internet are considered important factors for digital experiences, because certain durations and intensities of internet use enable people to learn better. Through *trial and error* (practices), one can develop one's digital skills and experiences. Livingstone et al. (2011) emphasized that the more children access the internet, the more they improve their digital literacy. Accordingly, Ng (2012) affirmed that through practice using internet, one can gain technical, cognitive, and socio-emotional perspectives of digital

technology, both online and offline, and thereby develop digital literacy. Therefore, we propose the following hypothesis:

H6: Better internet access **[X_2]** and more frequent internet use **[X_3]** go along with higher digital literacy **[X_4].**

H7: Students from junior high schools **[X_{1c}]** have lower digital literacies **[X_4]** than students from senior high schools **[X_{1d}].**

Meanwhile in terms of online privacy management, Lewis et al. (2008), Boyd and Hargittai (2010), as well as Litt (2013) find connections between technological familiarity, frequency of use, and skill development in adjusting Facebook's privacy setting. Students who regularly post content on Facebook can manage their privacy better than their counterparts who seldom post such content. Familiarity with Facebook gives them the self-confidence to modify their default privacy settings in accordance with what they need. Accordingly, Park (2011) also confirms that years of usage and daily internet usage, technical familiarity, and online experiences influence individual privacy strategies. These conditions lead us to propose the following hypothesis:

H8: Better internet access **[X_2]** and frequent internet use **[X_3]** go along with better privacy practices on SNSs **[X_5].**

H9: Better digital literacy **[X_4]** supports better privacy practices on SNSs **[X_5].**

Hogben (2007), O'Dea and Campbell (2012), as well as Kwan and Skronic (2012) recommended increased privacy settings on SNSs as one way to prevent

cyberbullying. Having a personal profile that is not too open to the public will reduce others' intention to harass one. Meanwhile, Ybarra and Mitchell (2004) found that more than half of cyberbullies surveyed claimed to be expert internet users. They were technically aware of how to use the internet to attack other people. Therefore, to add a new perspective to digital literacy, privacy practices and cyberbullying experiences, we propose the hypothesis:

H10: The more privacy practices on SNSs **[X_5]** the bigger students get possibility cyberbullying experiences **[Y_6]**.

H11: Digital literacy **[X_4]** explains more variance of cyberbullying experiences **[Y_6]** beyond internet access **[X_2],** and internet use **[X_3].**

H12: Privacy practices on SNSs **[X_5]** explains more variance of cyberbullying experiences **[Y_6]** beyond internet access **[X_2],** and internet use **[X_3].**

H13: Digital literacy **[X_4]** and privacy practices on SNSs **[X_5]** have correlations with cyberbullying experiences **[Y_6].**

H14: There is a difference between victims of cyberbullying **[Y_{6a}]** and non-victims of cyberbullying **[Y_{6b}]** in their digital literacy **[X_4].**

H15: There is a difference between perpetrators of cyberbullying **[Y_{6c}]** and non-perpetrators of cyberbullying **[Y_{6d}]** in their digital literacy **[X_4].**

H16: There is a difference between victims of cyberbullying **[Y_{6a}]** and non-victims of cyberbullying **[Y_{6b}]** in privacy practices on SNSs **[X_5].**

H17: There is a difference between perpetrators of cyberbullying **[Y_{6c}]** and non-perpetrators of cyberbullying **[Y_{6d}]** in their privacy practices on SNSs **[X_5].**

Meanwhile, the frequency of internet (especially SNS) use is positively related to engagement in cyberbullying experiences (Hinduja and Patchin, 2008; Erdur-Baker, 2010; Kwan and Skronic, 2012; O'Neill and Dinh, 2015; Balakrishnan, 2015). Currently the intensity of internet usage is increasing with the use of mobile internet devices such as smartphone and tablet, which may potentially be *always on*. Holt et al. (2014) find that secondary school students are involved more frequently in cyberbullying than primary school students. This can be attributed to primary students having less access to the internet than secondary students.

However, when adolescents face problems, they will seek social support from others. Parents and teachers are the closest persons to whom adolescents can ask to help stop cyberbullying (Kwan and Skoric, 2012; Park et al., 2014). O'Neill and Dinh (2015) argued that parents are the primary sources of social support when adolescents have upsetting experiences on the internet. On the other hand, friends usually have completely different role in media affairs. While parents try to restrict risky media use or stimulate critical media content, friends might stimulate experimental media use and provoke individuals to see what they "can do" and "can't do" on the internet (Nikken and de Graff, 2013). Therefore, we propose the hypothesis:

H18: Students from junior high schools **[X_{1c}]** have more cyberbullying experiences **[X_5]** than students from senior high schools **[X_{1d}].**

H19: Social mediation (parents, school, peers' role) **[X_6]** explains more variance of cyberbullying experiences **[Y_6]** beyond internet access **[X_2],** and internet use **[X_3].**

Students' involvement in cyberbullying cannot be separated from their bullying experiences—at school, in public spaces, or at home—as victims, bystanders, or perpetrators. The anonymity of cyberbullying encourages victims to retaliate against others because consequences are fewer. Most victims and bystanders keep quiet, because they are not sure that adults would help them stop cyberbullying. There is the possibility of roles being interchangeable in bullying (Juvonen and Gross, 2005; Li, 2007; Holt et al., 2014). Therefore, we propose the hypothesis:

H20: Experience as a victim of physical bullying **[Y_1],** experience as a victim of non-physical bullying **[Y_2],** and/or experience as a victim of cyberbullying **[Y_3]** have a positive correlation with experience as a perpetrator of physical bullying **[Y_4],** experience as a perpetrator of non-physical bullying **[Y_5],** and/or experience as a perpetrator of cyberbullying **[Y_6]**.

3.3. Research design

This study used quantitative methodology to analyze the interplay among demographic, internet access, internet use, digital literacy, privacy practices, cyberbullying experiences, and social mediation (parents, peers, and schools) variables. Data were collected through a self-administered online questionnaire which was completed by students, their parents, and their teachers.

The data collection process began with the submission of the research proposal and model student, parent, and teacher questionnaires to the Regional Planning and Development Agency (BAPPEDA) for Yogyakarta City. BAPPEDA is a city

government agency that has the authority to examine the administrative and ethical quality of research. If research meets administrative requirements and ethical standards, BAPPEDA issues a recommendation that the City Licensing Office (Dinas Perijinan Kota) issues a research approval letter. The City Licensing Office issued a letter approving this study on July 15, 2016 (see Appendix G, p. 227). Attached to that approval letter, we listed schools in Yogyakarta as proposed participants.

3.3.1. Students

For this study, respondents were adolescents, between 13 and 18 years of age at the time of the survey, coinciding with Grades 7–12 or junior high school (SMP) and senior high school (SMU) in Indonesia. In this period, adolescents' activity is strongly influenced by their peer groups. Cultural and media stereotypes of body weight and ideal bodies cause anxiety. Students are tempted to "body shame" each other, and inclined to fall into eating disorders such as anorexia and bulimia. Adolescence is categorized as a vulnerable age in terms of bullying behavior (Pellegrini and Bartini, 2000; UNICEF, 2011). Convenient quota sampling was used in this study, because the population was homogeneous and scattered across a very wide geographic area. Respondents were junior and senior high school students who had used the internet in the 12 months before data were collected. Respondents were recruited through schools in Yogyakarta City.

Yogyakarta City, also called "Jogja", is the capital of a special region (province) in Indonesia. The Special Region of Yogyakarta (DIY) has the second highest level of internet penetration in Indonesia, after the Special Region of Jakarta (the capital of Indonesia) (APJII, 2015). Internet users represent about 54% of DIY's 3,514,762

inhabitants. DIY is categorized as a small province, with its geographic area (3,185.80 km^2) being less than other provinces in Java. Administratively, it has four regencies (Sleman, Bantul, Gunung Kidul, Kulon Progo) and one city (Yogyakarta). Regencies are characterized as rural areas where most inhabitants work in agriculture. Usually regencies have a larger geographic area than cities. Meanwhile, cities are characterized by their inhabitants working in the business sector and as public/private sector employees. Usually, cities have a higher gross domestic product than regencies (APJII, 2015).

Yogyakarta City is located in the middle of Java, the main island of Indonesia. It is known as a "student city" and "miniature of Indonesia", because many people from other parts of Indonesia come to the city to pursue higher education. According to the Yogyakarta Education and Sports Department, Yogyakarta City has 55,219 junior high school (SMP) and senior high school (SMU) students (DIKPORA, 2013), with 29,434 students attending public schools and 27,798 students attending private schools.

Table 3.3

School Institutions in Yogyakarta

School Ladder	School Type		Total
	Public	Private	
SMP (Junior)	17	60	77
SMU (Senior)	14	37	51
Total	31	97	**128**

Yogyakarta City has 77 junior high schools, 17 of which are public and 60 of which are private. Meanwhile, there are 51 senior high schools, consisting of 14 public and 37 private schools (DIKPORA, 2013). These schools are spread throughout Yogyakarta's 14 districts. These districts may be categorized as large if they have more

than three post codes and small if they have 1–3 post codes. The number of post codes indicates the number of villages/subdistricts within a district (each village/subdistrict has its own post code). From each category of districts, we selected districts according to the compass directions (east, west, north, south, and center).

For this study, all three "large" districts were selected, considering their wide area: Umbulharjo (south), Gondokusuman (north), and Tegalrejo (north-west). Of the small districts, Gondomanan (center), Gedong Tengen (center), Jetis (north), Mantrijeron (south), and Kotagede (south-east) were selected. In total, eight districts were selected as the samples for this study.

Table 3.4

Districts and Post Codes in Yogyakarta

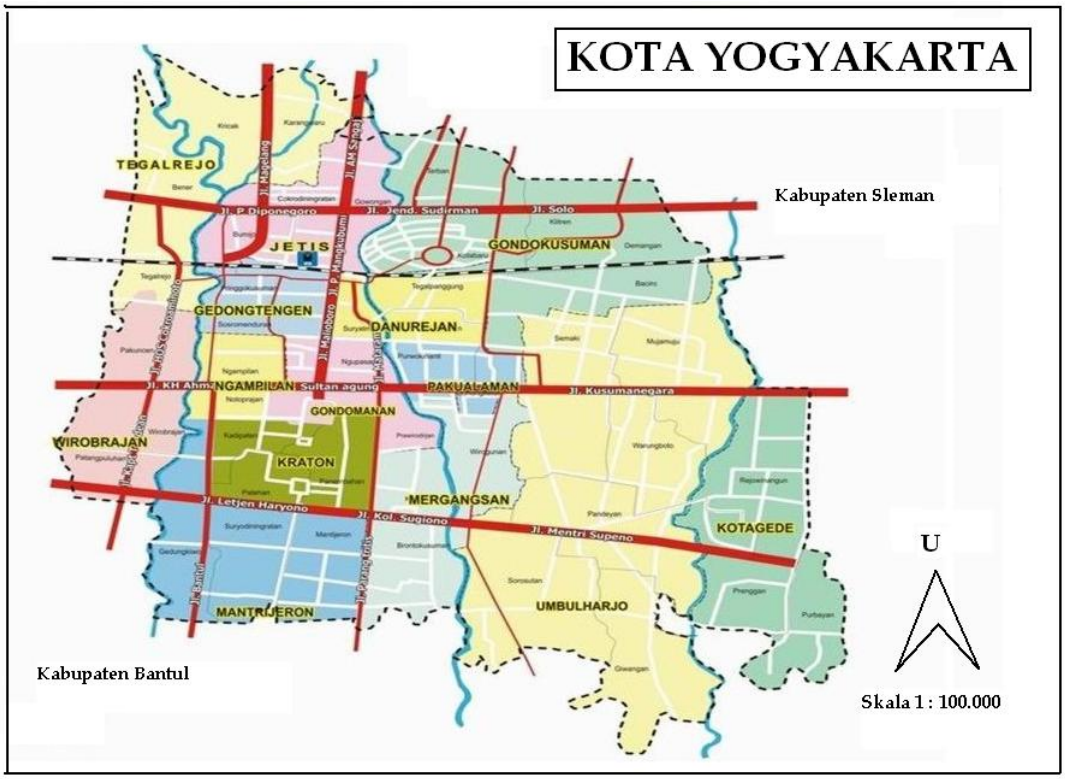
No	District	Post Code	Village
1	Pakualaman	55111–55112	2
2	Gondomanan	55121–55122	2
3	Kraton	55131–55133	3
4	Matrijeron	55141–55143	3
5	Mergangsan	55151–55153	3
6	Umbulharjo	55161–55167	7
7	Kotagede	55171–55173	3
8	Danurejan	55211–55213	3
9	Gondokusuman	55221–55225	5
10	Jetis	55231–55233	3
11	Tegalrejo	55241–55244	4
12	Wirobrajan	55251–55253	3
13	Ngampilan	55261–55262	2
14	Gedong Tengen	55271–55272	2

Source: Kode POS Distrik/Kecamatan Kota Jogja

Since the availability of internet infrastructure varies in the schools of Yogyakarta, focus was given to schools which have computer laboratories and internet connections.

Figure 3.1

Map of Yogyakarta



Source: Peta Kota Jogja

For this research, 1,548 junior and senior high school students in Yogyakarta have been used as respondents, with a ratio of 41.55% : 58.45% (643 junior high school students and 905 senior high school students). Meanwhile, the public/private school ratio is 53.3% : 46.7% (825 public school students and 723 private school students).

Table 3.5

Distribution of Participants

School Ladder	School Type		Total
	Public	Private	
SMP (Junior)	288 (18.62%)	355 (22.93%)	643 (41.55%)
SMU (Senior)	537 (34.68%)	368 (23.77%)	905 (58.45%)
Total	825 (53.3%)	723 (46.7%)	**1548 (100%)**

To improve school and student participation, we reimbursed every participating school about Rp 500.000, - (five hundred thousand rupiah), or the equivalent of 35€, to reimburse them for the internet quota and electricity used to fill out the online questionnaires. Meanwhile, participating students were included in a raffle of 100 book vouchers, each worth Rp 50.000, - (fifty thousand rupiah), equivalent to 3,50€. Participating students were asked to voluntarily write their email address at the end of the online questionnaire, so they could be contacted if they won a book voucher. For privacy reasons, we did not ask for the respondents' names or the names of their schools in the online questionnaire. We explained to them that we would not inform or distribute respondents' email addresses to third parties.

We did not use the word "bullying" or "cyberbullying" in the questionnaire, but the Malay (the root of Indonesian) term *"perisakan"*, which is understood as *"a thing or action that is annoying"* (Official Dictionary of the Indonesian Language). The questionnaire was tested on 10 junior high school students and 10 senior high school students to ensure that the questions were understandable. Based on feedback from the pilot test, we made several minor changes to the content and structure of the online questionnaire. The online questionnaire was made available from April 18 until September 30, 2016. It consisted of 72 questions spread over 21 pages (see Appendix D, p. 195). These included:

Table 3.6

Content of Students' Questionnaire

Page	Name of Page	Content
1	Welcome	Acknowledgements, purposes, and objectives of the research
2	Registering	Respondents were asked to enter "name, date of birth, name of street on which they live, mother's name". All entries were coded (last letter of first name and street) to maintain respondents' privacy.

Page	Name of Page	Content
3	Internet access	Respondents were asked to answer questions about: digital device ownership, devices for internet usage, places for internet usage, smartphone usage for internet usage, expenses for internet usage, wi-fi usage in school, smartphone usage in school, time of first smartphone ownership, time of first internet access, frequency of internet use, content accessed, online risks, and SNS use.
4	Privacy practices on SNSs	Respondents were asked to answer questions about: number of SNSs used, types of SNSs used, number of friends on SNSs, privacy settings, what kinds of information they provided on their SNS profiles, SNS activities
5	Digital literacy	Respondent was asked to answer questions about: their self-assessment of their cognitive, socio-emotional, and digital skills
6	(Physical) bullying experience	Respondents were asked whether they had experience as the victims of physical bullying. If they did not have such experience, they were asked to skip to Page 8
7	Location of physical bullying	Respondents were asked where they experienced physical bullying
8	Non-physical bullying experience	Respondents were asked whether they had experience as the victims of non-physical bullying. If they did not have such experience, they were asked to skip to Page 10
9	Location of non-physical bullying	Respondents were asked where they experienced non-physical bullying
10	Cyberbullying experience	Respondents were asked whether they had experience as the victims of cyberbullying. If they did not have such experience, they were asked to skip to Page 12
11	Cyberbullying victimization	Deeper exploration of cyberbullying; respondents were asked to answer questions about: kinds of bullying conducted against them, digital media used for bullying, whether they knew the perpetrator, how they reacted, whether they told others about it, whom they told, how they coped at that time, and how they would cope if it happened again in the future
12	Experience as perpetrator of physical bullying	Respondents were asked whether they had experience as the perpetrators of physical bullying. If they had no such experience, they were asked to skip to Page 14.
13	Target of physical bullying	Deepening exploration of physical bullying perpetrators, respondents were asked to answer questions about: whom they bullied and what their motivations were
14	Experience as perpetrator of non-physical bullying	Respondents were asked whether they had experience as the perpetrators of non-physical bullying. If they had no such experience, they were asked to skip to Page 16.
15	Target of non-physical bullying	Deepening exploration of non-physical bullying perpetrators, respondents were asked to answer questions about: whom they bullied and what their motivations were
16	Experience as perpetrator of cyberbullying	Respondents were asked whether they had experience as the perpetrators of cyberbullying. If they had no such experience, they were asked to skip to Page 18.
17	Perpetrator in internet	Deepening exploration of non-physical bullying perpetrators, respondents were asked to answer questions about: whom they bullied, what media they used, what their motivations were, and whether they felt sorry for their actions.

Page	Name of Page	Content
18	Social mediation	Respondents were asked to answer questions about: whether their parent know their internet activities, how their parents support or limit their internet activities, how their friends and teachers at school support their internet activities, and who/what are their sources of information on internet safety
19	Demographic	Respondents were asked to identify their: gender, age, with whom they lived, in which grade they were studying, how much they received in pocket money per month, in what type of school they were studying, what their parents' level of education was, and what their parents' jobs were.
20	Closing	Respondents were asked to voluntarily include their phone number and/or email address if they wanted a chance to win one of 100 book vouchers
21	Final page	Respondents were thanked for participating in this research

Determining a schedule of completing the online questionnaires was not easy, because April–June are the end-of- school period in Indonesia. During this period, schools usually prepare final examinations for their students. Other problems that arose during fieldwork were unstable internet connections and electricity. Some questionnaires had to be completed more than once because the internet connection went down while students were completing it. Similarly, some fixed appointments had to be rescheduled because of blackouts following hard rain.

From April until September 2016, a total of 21 schools participated in this study, consisting of 11 public schools and 10 private schools. During the time allotted by schools for questionnaire completion, we went to their computer laboratories to introduce the intentions and purposes of the study. We then guided students to https://ww3.unipark.de/uc/digilit_remindo/ to fill out the online questionnaire. We answered students' questions about terms in the questionnaire that they did not understand.

Up to the end of September 2016, the total number of questionnaires submitted to Unipark was 1,548. However, after the clearance process, only 1,194 questionnaires could feasibly be used for data analysis. About 354 questionnaires could not be used because they were incomplete. The most dropped-out page was the "Welcome" page (152 cases). The mean time taken by students to complete the questionnaire was 31 minutes and 8 seconds (see Appendix C, p. 191).

3.3.2. Parents

While students were the main source of data for this study, parents were also asked about their roles as social mediators of adolescents' internet use and internet experiences. The questions were adapted from EU Kids Online's parent questionnaire. We asked students to take the questionnaires home to be filled by a parent. The parent questionnaire explored parents' monitoring, controlling and communicating of children's media use. The parents' answers were compared with their children's answers. In this questionnaire, which also included a cover letter about the purposes and objectives of this research, students' parents were asked 36 questions. These questions were divided into eight components (see Appendix E, p. 212).

Table 3.7

Content of Parents' Questionnaire

Page	Name of Component	Content
1	Welcome	Acknowledgement, research purposes and objectives
2	Registering	A request for parents to enter the "child's name, date of birth, name of street where they live, and mother's name". All entries were coded (last letter of first name and street) to maintain respondents' privacy.
3	Internet access	Parents were asked to answer questions about their child's internet access habits: the digital devices owned by the child, and the place the child accessed the internet. Parents were also asked whether they accessed internet, where, and how often. If parents also accessed the internet, they were directed to answer the questions in the "Digital Literacy" component; if they did not, they were asked to skip to the "Social Mediation" component.
4	Digital literacy	Parents were asked to answer questions about: their self-assessment of their cognitive, socio-emotional, and digital skills in digital device usage
5	Social mediation	Parents were asked to answer questions about: whether they knew their child's internet activities, how they supported or limited their child's internet activities, and who/what became sources of information on internet safety.
6	Awareness of cyberbullying of children	Parents were asked whether they were aware of something on the internet that had disturbed their child, what kind of disturbance, the extent their attitudes on (cyber)bullying and school involvement prevented and solved problems of (cyber)bullying.
7	Demographic	We asked respondents to identify who filled the questionnaire, their age, their last level of education, their profession, their monthly expenses, their child who is a respondent for this research, how many children they have, in what grades their children are, in which types of school their children study.
8	Closing	Parents were asked to voluntarily include their name and phone number. We convinced parents that all information provided on the questionnaire would be confidential and we thanked them for participating in this research

A paper-based questionnaire for parents was pilot tested with the parents of 40 students in March 2016 (during the same time as the pilot test of the student questionnaire). Parents were asked to answer questions and mark words or sentences that were ambiguous or too difficult to understand. At the time, we also wanted to know whether the topic was too sensitive for them, as this study involved their children and them.

The parent questionnaires were distributed to students when they completed the online questionnaires at school. The questionnaires were submitted to the school coordinators at a specific time. To avoid questionnaire loss, we allocated one week for collecting parent questionnaires.

Until the end of January 2017, only 835 of the 1,175 parent questionnaires had been returned. A low level of parent participation had been predicted at the beginning of this study. As questionnaires were not distributed directly to parents, the possibility of questionnaires loss was high. On the other hand, we lacked the funding and time for face-to-face interviews with parents. Because of incompleteness concerns, we decided to analyze only 536 parent questionnaires.

3.3.3. Teachers

In the context of ICT, teachers are the second primary source of social support for adolescents after their parents (O'Neill and Dinh, 2015). Meanwhile, Kwan and Skoric (2012) and Park et al. (2014) affirmed that, together with parents, teachers are the closest persons to adolescents who can inhibit the spread of cyberbullying. Schools in Yogyakarta commonly provide internet connection for their students, either in their school computer laboratories or through restricted school Wi-Fi.

The teacher questionnaire explored schools' monitoring, controlling and communicating of children's media use. Some questions asked about schools' policies regarding internet facilities and cellular phone/smartphone usage at school. Participant teachers were recruited from the schools that participated in this study. This questionnaire, which included a cover letter about the purpose and objective of this

research, asked teachers 26 questions that were divided into 7 components (see Appendix F, p. 220).

Table 3.8

Content of Teachers' Questionnaire

Page	Name of Component	Content
1	Welcome	Acknowledgements, purposes, and objectives of the research
2	Internet access	Teachers were asked to answer questions about their internet access habits: their digital devices, place of internet access, types of internet activities, and frequency of internet use.
3	Internet at school	Teachers were asked whether the schools where they work provide internet (especially Wi-Fi) facilities, whether students are allowed to use their smartphones in school.
4	Digital literacy	Teachers were asked to answer questions about: their self-assessment of their cognitive, socio-emotional, and digital skills in digital device usage
5	Social mediation	Teachers were asked to answer questions about: whether they knew their students' internet activities, how they supported or limited their students' internet activities, and who/what became sources of information on internet safety.
6	Awareness of cyberbullying on children	Teachers were asked whether they were aware of something on the internet that had disturbed their students, what kind of disturbance, the extent their attitudes on (cyber)bullying and school involvement prevented and solved problems of (cyber)bullying.
7	Demographic	We asked teachers to identify their gender, their age, the grade they teach, the subject they teach, and the type of school at which they teach.
8	Closing	Teachers were asked to voluntarily include their name and phone number. We convinced teachers that all information provided on the questionnaire would be confidential and we thanked them for participating in this research

We distributed 40 questionnaires to teachers from public and private schools as a pilot test in March 2016. We asked teachers to answer the questions and mark the words or sentences that were ambiguous or too difficult to understand. We also sought to determine whether the topic was too sensitive for schools, even though we were not exposing the names and addresses of schools and student.

We recruited teachers from the schools that participated in this study. Twenty paper questionnaires were distributed to teachers via school coordinators and collected a

week later. From the 21 schools that participated in this research, we collected 316 completed questionnaires. Teachers' participation was voluntary, but they were more enthusiastic than parents. Most teachers punctually returned the completed questionnaires to their coordinator; only a few required reminders.

Table 3.9

Participating Schools

School	Type	Post Code	District	Parents	Teachers
SMP 1	Public	55223	Gondokusuman	45	19
SMP 2	Public	55121	Gondomanan	53	18
SMP 7	Public	55244	Tegalrejo	32	19
SMP 9	Public	55172	Kotagede	39	12
SMP Pangudi Luhur 1	Private	55165	Umbulharjo	51	14
SMP Budya Wacana	Private	55225	Gondokusuman	30	14
SMP Stella Duce 1	Private	55271	Gedong Tengen	15	15
SMP Joannes Bosco	Private	55225	Gondokusuman	45	17
SMP Maria Immaculata	Private	55121	Gondomanan	21	15
SMA 2	Public	55243	Tegalrejo	55	14
SMA 11	Public	55233	Jetis	43	15
MAN 1	Public	55223	Gondokusuman	49	14
SMA 8	Public	55165	Umbulharjo	31	15
SMA 3	Public	55224	Gondokusuman	56	14
SMA 7	Public	55141	Matrijeron	57	13
SMA 5	Public	55172	Kotagede	28	14
SMA Stella Duce 1	Private	55224	Gondokusuman	34	15
SMA Stella Duce 2	Private	55225	Gondokusuman	45	18
SMA Berbudi	Private	55163	Umbulharjo	35	14
SMA Santa Maria	Private	55121	Gondomanan	17	13
SMA Muhammadiyah 1	Private	55241	Tegalrejo	54	14
Total questionnaires returned				835	316

3.4. Measurement

In the following table, we specify the measurement of the hypotheses according to each objective. The statistical analysis will use SPSS 20 software.

Table 3.10

Hypothesis Measurement

Hypothesis	Measurement
H1, H2, H3, H4, H7, H14, H15, H16, H17, H18	Independent sample t-test
H5**,** H20	Pearson product-moment correlation
H6, H8, H9, H10, H11, H12, H13, H19	Regression analysis

CHAPTER 4

Findings

In this chapter we describe our findings in detail. It is started in chronological order by variables: demographic characteristic of participants, internet access, internet use, privacy practices, cyberbullying experiences, and social mediation. Then, it is followed by some cross-tabulation analysis results between variables, and hypotheses testing results in the last part.

4.1. Demographic characteristics of participants

4.1.1. Students

About 65.5% of student respondents in this study were female; the remainder (34.5%) were male. Meanwhile, the distribution of public and private school students was 56.3% and 43.7%. This differed somewhat from the general ratio of public and private (junior and high) school students in Yogyakarta City, which is 53.3% : 46.7%.

About 57.1% of students' fathers and 48.8% of mothers were university graduates (bachelor/master/doctor). The second most common response for parents' last level of completed education was high school (25.9% for fathers and 26.8% for mothers). Most parents' occupations were identified as self-employed (40.4%) and homemaker (48.5%).

Parents' latest level of education completed and occupation were coded to generate an SES Index (Lampert et al., 2014). It was found that most student

participants in this study came from middle and high SES backgrounds. Gaps occurred where participants did not indicate their parents' latest level of education completed and occupation. The following table presents the students' socio-economic statuses.

Table 4.1

Students' SES

N=1194

Category	%
Low	4.3
Middle	47.0
High	47.3
Missing sys.	1.4
Total	100.0

Most respondents live with their main (nuclear) family (father, mother, younger/older sibling). It is common in Indonesia for students to live together with their nuclear families and one or more grandparent, or for a cousin to be entrusted to a student's nuclear family. However, about 9.7% of respondents lived in such a dormitory.

In terms of pocket money, 32.6% of student respondents received an average of Rp 150,001.00–Rp 300,000.00 (equivalent to 10–21€) per month. Of this, they spent at least Rp 5,000.00 or 0,30€ per month for mobile phone credit. Most students (22.4%), however, spent about Rp 50,000.00 (3,50€) per month on mobile phone credit. Students do not only access the internet by using mobile data, but also free Wi-Fi hotspots provided by other parties. This allows them to save their pocket money. The places where student respondents access the internet freely will be described in the "internet access" section.

Student respondents were distributed unevenly in terms of grade, as shown in the following table.

Table 4.2

Class Grade Composition

N=1194

Class grade	%
Seven	2
Eight	31.5
Nine	11.6
Ten	23.5
Eleven	16.4
Twelve	15

Since participation in this study was voluntary, unequal composition was possible. In our requests, we did not specify a specific age range. Respondents were divided by age as follows: 60.6% were 14–16 years old, 26.3% were 11–13 years old, and 13.1% were 17–20 years old.

4.1.2. Parents

For the parent questionnaire, 57.6% of participants were mothers, 33.6% fathers, 6.0% guardians, and 2.1% other persons (N=536). About 85.6% of parent respondents were 38–55 years old, 9.7% of them were 20–37 years old, and 4.7% of them were 56–73 years old.

Most parent's last level of education completed was university (50.9% of fathers and 38.8% of mothers). The second most common last level of education completed was high school (24.4% of fathers and 28.5% of mothers). Only about 0.4% of fathers and 0.6% of mothers had not finished elementary school.

About 36.9% of parent respondents declared that their family expenses were between Rp 4,000,001.00 – Rp 6,000,000.00 (equivalent to 275.90€ – 413.80€) per month. The second most common family expense bracket (30.4%) was Rp 2,000,001.00

– Rp 4,000,000.00 (equivalent to 137.93€ – 275.89€) per month. Only about 2.8% of parent respondents declared family expenses of more than Rp 10,000,001.00 (equivalent to 689.66€) per month.

Parent participants in this study indicated that their children ranged from 12–17 years of age. About 30.6% of parent respondents said that their child was 13 years old, for 27.2% the child was 15 years old, for 25.9% 14 years, and for 3.4% 12 years.

About 57.3% of parent respondents revealed that their child attended a private school, whereas 47.3% of parent respondents indicated that their child attended a public school. Meanwhile, in terms of grade, about 64.6% of parent respondents stated that their child attended junior high school (SMP) and about 35.6% of parent respondents stated that their child attended senior high school (SMU).

4.1.3. Teachers

About 54.1% of the teachers that participated in this study (N=316) were female, while 45.9% were male. Most (52.5%) were between 36 and 51 years old, while 33.5% were between 22 and 35 years old; the remainder (13.9%) were between 52 and 67 years old. About 56.6% of them taught at public schools, while 43% taught at private schools; 0.3% of teacher respondents did not identify the type of school.

4.2. Internet access

4.2.1. Students

Smartphones are commonly possessed by students; about 89.5% of students have smartphones or can use one personally. Laptop computers are also commonly owned by student respondents (70.3%), followed by tablet computers (22.4%). Smartphones are also commonly used by students to access the internet (90.6%). Laptop computers (74.1%) and desktop computers (25%) are used by students to access the internet.

The majority (21.5%) of student respondents indicated that they first had a smartphone at age twelve; smartphones might be common gifts to students after they complete elementary school and enter junior high school. However, about 1.5% of respondents indicated that they did not own a smartphone. Commonly, respondents first accessed the internet at a young age, with a mean of 10.09 years old.

Most student respondents (68.3%) access the internet "when on the way somewhere/to something" using mobile devices. This was followed by the bedroom (68%) and school (53.9%); the least common location for internet access was a relative's house (20.6%).

About 75.2% of student respondents used prepaid data packages to access the internet. Meanwhile, 67.7% of student respondents used free Wi-Fi hot spots, e.g. at school, in public spaces, etc. Only about 15.4% of student respondents used postpaid data packages; such packages are commonly used in Indonesia by persons with regular income. However, 1% of student respondents indicated that they have no internet connection on their phone, and 1.6% said they had no smartphone.

Most student respondents (74.5%) indicated that their schools restricted smartphone usage, and required them to gain permission before using their phones. About 16% of student respondents said that smartphone usage was entirely prohibited. Only about 9.5% of student respondents indicated that they could use their smartphones at any time, without restriction.

About 58.3% of student respondents indicated that free Wi-Fi was available at their schools, without any usage restrictions. Another 31.1% of student respondents said that they needed to get permission to use their school's Wi-Fi. Meanwhile 6.4% of them indicated that Wi-Fi was available only to school teachers and staff, not students. However, 2.5% of students hacked into their schools' Wi-Fi networks to gain access. Only 1.7% of students indicated that their schools had no Wi-Fi facilities. It may be assumed that schools in Yogyakarta commonly provide internet facilities in their school computer laboratories and/or restricted Wi-Fi to their students.

4.2.2. Parents

About 84% of parent respondents gave their children permission to use smartphones personally. Laptop computers were also available for students' personal use, as indicated by 54.1% of parent respondents. Cellular phones that are not smartphones were still used by 25.0% of students, according to their parent respondents.

About 67.7% of parents indicated that their children usually accessed the internet in the living-room, with 65.1% indicating that children access the internet in their bedrooms and 59.5% indicating that children access the internet "when on the way

somewhere/to something" using mobile devices. Furthermore, 57.3% of parent respondents indicated that their children could access the internet at school.

4.2.3. Teachers

Teachers, as with parents, are expected to mediate the internet usage of children, especially when they are at school. Of the 316 teacher participants in this study, laptop ownership is common, as these devices help them do their daily routines and jobs. About 92.1% of teacher respondents have a laptop computer. Other ICT devices owned by teacher respondents include smartphones (83.2%), cellular phones (66.8%), desktop computers (33.5%), and HD televisions (21.5%).

It is not surprising, thus, that 94.6% of teacher respondents use laptop computers to access the internet. This is followed by smartphones (81.3%), desktop computers (57.3%), cellular phones (20.6%), and tablet computers (17.1%).

Teacher respondents accessed the internet most frequently (94.6%) when at work, followed by at home (89.2%) and "when on the way somewhere/to something" using mobile devices (82.0%). A small portion (17.1%) continued to access the internet from internet cafés.

Confirming the potential for students to use their smartphones at school, about 82.9% of teacher respondents indicated that "students are allowed to use their smartphones with some restrictions" (e.g. only when authorized, only during break time, etc.). Only 17.1% of them indicated that students are not allowed to use their smartphones at school.

The possibility of using smartphones at school is also supported by schools' provision of Wi-Fi. About 48.1% of teacher respondents confirmed that Wi-Fi is provided by the schools and students are allowed to use it with no restrictions. Meanwhile, about 37.7% of them said that internet Wi-Fi is provided, but its usage is restricted for students e.g. only when authorized, only during break times, etc. About 13.0% of teacher respondents indicated that Wi-Fi is available at school, but only to the school staff; students are not allowed access. Finally, 1.3% of teacher respondents indicated that internet Wi-Fi is not provided by their schools.

4.3. Internet use

4.3.1. Students

In terms of internet use, about 56.1% of student respondents said they use the internet "every day or almost every day"; indeed, about 38.1% of them indicated that they use the internet "several times each day". However, 2.2% of them used the internet "hardly ever". About 22.6% of students said that they spend more than four hours using the internet on a normal school day; about 16.2% of them said that they spend about 2 hours. Another 15.2% use the internet for 3 hours on a normal school day. However, 7.6% of student respondents said that they spend "just a few minutes" and about 1.1% spend "no time at all" using the internet on a normal school day.

The quantity of student respondents' internet use increases significantly on non-school days (weekends/holidays); about 52.2% of them indicated that they spend more than 4 hours using the internet on such days. Another 11.5% said that they spend 4 hours and 10.6% said that they spend 3 hours using the internet on non- school days.

Conversely, about 2.2% of student respondents spend "just a few minutes" and 1.1% do not use the internet at all on normal non-school days (weekends/holidays).

The most common internet activity among student respondents was "used instant messages" (e.g. WhatsApp, BBM, Line, etc.), with intensity “every day or almost every day” 50.6%. "Visited SNSs" was the second most common of student respondents' internet activities, with intensity “every day or almost every day” 43.8%. This was followed by "used the internet for school work", with intensity “every day or almost every day” and “1–2 times a week**”** 30.2%. The least common internet activity among student respondents was "visited chatrooms (e.g. Yahoo Messenger, Google Talk, etc.)", 40.2%. In table 4.3, we show all of student respondents' internet activities.

Table 4.3

Students' internet activities in the past month

N=1194

% students have …	**Never**	**Hardly ever**	**1–2 times a month**	**1–2 times a week**	**Every day or almost every day**	**Several times each day**
Used the internet for school work	2.5	5.8	4.9	**30.2**	**30.2**	26.5
Watched video clips (e.g. YouTube, Vimeo, etc.)	7.3	4.6	14.6	**30.2**	24.0	19.3
Downloaded music or films	17.6	5.9	25.9	**28.6**	10.6	11.4
Read/watched news on the internet	11.1	5.7	11.1	22.2	**28.1**	21.9
Sent/received email	21.0	12.3	**24.6**	23.1	11.0	8.0
Visited chatrooms (e.g. Yahoo Messenger, Google Talk, etc.)	**40.2**	10.7	11.4	11.3	15.0	11.4
Used instant messaging (e.g. WhatsApp, BBM, Line, etc.)	3.0	0.8	0.8	2.5	**50.6**	42.4
Played online games	**38.4**	6.8	12.5	16.1	14.4	11.8
Visited social network sites (e.g. Facebook, Instagram, Twitter, etc.)	3.1	1.9	4.0	9.5	**43.8**	37.6
Made/received phone calls (e.g. via Skype)	**30.5**	8.4	17.3	21.9	11.1	10.9
Spent time in a virtual world	8.9	7.6	5.0	13.2	**33.9**	31.3
Used a Global Positioning System (GPS)	**24.5**	13.5	20.5	23.3	9.4	8.8

In this study, we also asked students whether they did risky activities on the internet. The most common risky internet activity among student respondents was "looked for new friends or contacts on the internet" (23.4%), with intensity "1–2 times a week". Generally, student respondents indicated that they had been careful in their internet activities. The mean values of risky internet activities were between 1.28 and 3.18, indicating that student respondents "never" to "1-2 times a month" participated in risky activities on the internet. In table 4.4, we show student respondents' risky internet activities.

Table 4.4

Students' risky internet activities in the past month

N=1194

% students have …	Never	Hardly ever	1–2 times a month	1–2 times a week	Every day or almost every day	Several times each day
Looked for new friends or contacts on the internet	22.0	12.7	21.4	**23.4**	10.1	10.5
Sent personal information (e.g. your full name, address or phone number) to someone that you have never met face-to-face	**72.5**	8.7	7.2	5.9	2.9	2.8
Added people as your "friend" or contact who you have never met face-to-face	**48.0**	13.1	18.5	11.7	3.3	5.4
Pretended to be a different kind of person on the internet than you really are	**80.0**	6.8	6.3	3.2	1.9	1.8
Sent a photo or video of yourself to someone that you have never met face-to-face	**87.9**	4.3	1.9	1.9	1.3	1.3
Unintentionally seen pornographic images/websites	**36.3**	27.8	19.5	9.2	4.2	2.9
Intentionally seen pornographic images/websites	**72.4**	13.0	8.2	4.2	1.3	1.0

4.3.2. Parents

Meanwhile, of the 536 parent respondents in this research, 90.5% (485) of them accessed the internet. Of those who accessed the internet, 76.9% of them accessed it at

home, 49.6% of them accessed it while at office, and about 68.9% accessed it "the way somewhere/to something" using a mobile device. Most parent respondents (43.5%) indicated that they access the internet "every day or almost every day"; about 33.6% of them said they access the internet "several times each day". About 10.4% of parent respondents indicated that they access the internet "once or twice a week".

4.3.3. Teachers

Teacher respondents were active users of the internet. Instant messaging (e.g. WhatsApp, BBM, Line, etc.) was teacher respondents' most frequent (57.6%) internet activity with intensity “several times each day”. With smartphones having made it possible for everyone to access instant messaging more frequently. This was followed by reading/watching news on the internet with intensity “every day or almost every day” 42.4%, searching for work material with intensity “1–2 times a week” 50.0%, and visiting SNSs with intensity “every day or almost every day” 28.5%. Meanwhile, the most infrequent was "played online games", with intensity “never” 61.7%. The table 4.5 presents teachers' internet activity in detail.

Table 4.5

Teachers' internet activities in the past month

N=316

% teachers have …	Never	Hardly ever	1–2 times a month	1–2 times a week	Every day or almost every day	Several times each day
Searched for work materials	0.0	1.9	10.8	**50.0**	30.4	7.0
Watched video clips (e.g. YouTube, Vimeo, etc.)	3.2	8.2	**40.2**	31.3	14.2	2.8
Downloaded music or films	7.0	5.7	**61.4**	17.7	5.1	3.2
Read/watched news on the internet	3.5	2.2	10.1	27.8	**42.4**	13.9
Sent/received email	6.3	5.1	**44.0**	26.3	12.0	6.3
Visited chatrooms (e.g. Yahoo Messenger, Google Talk, etc.)	17.4	7.0	15.5	18.7	**21.2**	20.3

% teachers have …	Never	Hardly ever	1–2 times a month	1–2 times a week	Every day or almost every day	Several times each day
Used instant messaging (e.g. WhatsApp, BBM, Line, etc.)	1.9	1.6	4.4	3.8	29.7	**57.6**
Played online games	**61.7**	14.2	9.8	8.2	4.4	1.6
Visited social network sites (e.g. Facebook, Instagram, Twitter, etc.)	7.3	5.7	19.9	13.3	**28.5**	25.3
Made/received phone calls (e.g. via Skype)	**33.2**	10.4	10.4	20.3	15.8	9.8
Spent time in a virtual world	**24.4**	9.2	12.3	16.1	23.4	14.6
Used a Global Positioning System (GPS)	**37.0**	18.4	17.7	16.5	8.5	1.9

4.4. Students' privacy practices on social network sites (SNS)

About 97.7% of students (1,167 respondents) declared that they had at least one SNS account; the remainder (2.3%) said that they did not have any SNS account (N=1194). Of those student respondents with SNS accounts, about 89% said that they had more than one, while 11% of students said they had only one.

Instagram was the most commonly used SNS among student respondents, with 85.5% of respondents indicating that they had an account. This was followed by Facebook (84.2%), Twitter (54.6%), and Google+ (54.2%). "Other" SNSs were reported by almost one third of student respondents, but when they were asked to identify the application, most were categorized as instant messaging applications (i.e. Line, Snapchat, BBM, and WhatsApp). In table 4.6, we show all SNS accounts owned by student respondents.

Table 4.6

Students' SNS account ownership

N=1167

SNS account	%
Facebook (FB)	84.2
Twitter	54.6
Google+	54.2
Instagram	85.5
LinkedIn	4.8
Path	37.4
Tumbler	12.1
MySpace	1.2
Flickr	1.0
Ask.fm	34.4
Other	31.7

About 45.2% of student respondents claimed that they had more than 300 "friends" on their SNS accounts, whereas 25.7% indicated that they had between 101 and 300 SNS "friends". Only 0.6% of student respondents indicated that they had "up to 10" SNS "friends"; 15.2% said that they "do not remember" how many SNS "friends" they had.

Regarding their account privacy settings, 32.7% of students said that their accounts were set to "Public, so that everyone can see my profile"; 38.9% of them set their accounts to "Private, so that only my friend can see", and 20.3% set their account to "Partially private, so that friends of my SNS friends can see my profile." Meanwhile about 8.1% of student respondents said that they "Do not remember" how they set their SNS account.

Responses indicated that students disclosed through their SNS profiles with photographs that clearly showed their face (64.3%), their complete names (75.5%), their date of birth (45.7%), and their hometown (47.1%). The profiling of the self on SNSs is

part of users' "need to be seen", according Tufekci (2008). The table 4.7 shows the types of personal information presented by students in their SNS account(s).

Table 4.7

Students' personal information presented in SNS account(s)

N=1167

Information in SNS account	%
A photo that clearly shows the face	64.3
Complete name	75.5
Complete address	7.7
Phone number	12.1
Correct date of birth	45.7
Hometown	47.1
Email address	25.2
Interest (hobby)	18.8
Family members (parents, siblings, etc. in the network)	10.2
Relationship status	11.5

Student respondents' most frequent SNS activity was “updated their profile when there is something new” (35.8%) with intensity “sometimes”. It was followed then, “shared information which they thought was interesting” (32.1%) with intensity “sometimes”. Meanwhile, the most infrequent SNS activity was "shared their current location real time" (33.2%), with intensity “rarely”. In table 4.8, we show students' SNS activities in detail.

Table 4.8

Students' SNS activities in the past month

N=1167

% students have …	Never	Rarely	Sometimes	Often	Always or almost always
Shared "your status" when there is something to say	16.7	**46.7**	25.6	5.5	3.2
Shared what is going on in your life (to keep your friends updated)	20.9	**42.7**	26.0	6.9	1.3
Shared your current location real time	29.0	**33.2**	24.1	9.6	2.1
Shared your new picture/video	29.6	**29.8**	28.1	8.2	2.1

% students have …	Never	Rarely	Sometimes	Often	Always or almost always
Updated your profile when there is something new	7.3	32.2	**35.8**	17.6	4.9
Shared information which you thought was interesting	10.6	26.8	**32.1**	21.4	6.8

4.5. Digital literacy

4.5.1. Students

To measure digital literacy, we asked student respondents to self-assess their digital media usage. Student respondents indicated the most confidence (66.2%) with the statement *"I give much consideration if someone I know on SNSs asks to meet"*, with "strongly agree". This was followed by *"I tend to be careful when posting comments on SNSs"* (46.6%), with "agree". Meanwhile, student respondents' indicated the least confidence with the statement *"I know more about the internet than my parents"* (27.3%), with intensity "agree". In the following table, we show student respondents' self-assessment of their digital media usage.

Table 4.9

Students' self-assessment of digital media usage

N=1194

% …	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I know more about the internet than my parents	19.7	22.7	12.3	**27.3**	18.0
ICT enables me to finish my school projects and other learning activities better	0.1	0.9	5.2	**51.6**	42.2
There are lots of things on the internet that are good for youths of my age	0.0	0.3	8.1	**55.9**	35.6

% …	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am more motivated to learn with ICT	0.6	4.8	33.4	**44.3**	16.9
I find it easy to find a website I have visited before	0.6	3.0	21.3	**54.4**	20.8
The internet allows me to explore my creative hobbies (e.g. create start-ups, search for designs for my clothes, etc.)	0,3	4.3	20.1	**50.1**	25.3
I do not just share information I get from SNSs to others	1.2	8.1	30.9	**42.1**	17.7
I always check the profile of someone who proposes becoming my "friend" on SNSs	0.2	4.1	13.8	**48.6**	33.3
I do not just copy and paste articles I need for my school assignments	1.0	8.2	30.5	**45.3**	15.0
I frequently obtain help with my school work from my friends or my teachers over the Internet e.g. through Skype, Facebook, blogs	0.4	3.1	18.2	**54.7**	23.6
I tend to be careful when posting comments on SNSs	0.2	0.9	6.8	**46.6**	45.6
I give much consideration if someone I know on SNSs asks to meet	0.9	1.9	4.4	26.5	**66.2**
I compare different websites to determine if information is true	0.1	0.8	10.1	**47.5**	41.5

Meanwhile, regarding their digital skills, about 87.4% of student respondents indicated that they could install applications on mobile devices. This was followed by the ability to remove people from students' contact lists (79.1%). Meanwhile, the least confidence was indicated with the ability "to change filter preferences to select which websites you want to see", which was about 35.1%. In table 4.10, we show students' responses regarding their digital skills.

Table 4.10

Students' digital skills

N=1194

Students' ability	%
To change filter preferences to select which websites you want to see	35.1
To bookmark a website (add to favorites)	63.0
To block unwanted advertisements or junk/spam mail	44.3
To delete the record of websites you have visited	77.6
To change the privacy settings on your social network site profile	72.8
To block messages from someone you don't want to hear from	49.6
To create something new from photographs/videos/music that you have found online	44.5
To upload photographs/videos/music that you have create yourself	62.2
To install apps on mobile devices	87.4
To remove people from my contact list	79.1

4.5.2. Parents

To compare their digital literacy, some questions were also directed to parent respondents. Parent respondents indicated the most confidence with the statement *"I give much consideration if someone I know on SNSs asks to meet"* (50.6%), with "strongly agree". This was followed by *"I tend to be careful when posting comments on SNSs"* (46.3%), with "agree". Surprisingly the least confidence was indicated for the statement *"I know more about the internet than my child"* (30.4%), with "disagree". Keeping in mind that student respondents had least confidence for *"I know more about the internet than my parent"* (27.3%) with "agree", this indicates that both parents and children were equally unsure about who knows more about the internet.

Table 4.11

Parents' self-assessment of digital media usage

N=485

% …	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I know more about the internet than my child	6.2	**30.4**	20.0	28.0	6.0
ICT helps my child finish her/his school projects better	0.2	0.6	6.7	**56.3**	26.7
There are lots of things on the internet that are good for my child	0.2	0.6	4.3	**59.3**	26.1
I am more motivated to do many things with ICT	1.3	3.4	20.9	**50.7**	14.2
I am familiar with my smartphone operating system	0.9	5.8	18.5	**55.0**	10.3
I find it easy to find a website I have visited before	0.7	6.7	14.0	**57.5**	11.6
I know which information I should and shouldn't share online	0.2	2.8	4.7	**55.2**	27.6
I always check the profile of someone who proposes becoming my "friend" on SNSs	0.7	2.4	4.7	**52.4**	30.2
I find it easier to maintain good relations with my friends and/or my family over the internet (e.g. through FB, WhatsApp, etc.)	0.2	4.3	6.0	**59.7**	20.3
I tend to be careful when posting comments on SNSs	0.0	0.2	2.8	**46.3**	41.2
I give much consideration if someone I know on SNSs asks to meet	0.9	1.1	1.9	36.0	**50.6**
I compare different websites to determine if information is true	0.2	0.2	3.5	**53.7**	32.8
I tend to be careful when revealing my identity online	1.3	0.2	3.5	41.4	**44.0**

Meanwhile, in terms of digital skills, about 64.9% of parent respondents indicated that they were sure they could install applications on mobile devices. The second greatest level of confidence (64.2%) was shown regarding the ability to remove people from a contact list. The lowest level of confidence (31.2%) was exhibited in response to the ability *"To create something new from photographs/videos/music that you have found online"*. Indeed, reproduction, as part of digital literacy, needs to be

practiced for some time; however, adults may have no time to practice. In table 4.12, we show parents' responses to questions about their digital skills.

Table 4.12

Parents' digital skills

N=536

Parents' capability	%
To change filter preferences to select which websites you want to see	52.2
To bookmark a website (add to favorites)	54.1
To block unwanted advertisements or junk/spam mail	58.8
To delete the record of websites you have visited	52.6
To change the privacy settings on your social network site profile	58.2
To block messages from someone you don't want to hear from	51.9
To create something new from photographs/videos/music that you have found online	31.2
To upload photographs/videos/music that you have create yourself	32.6
To install apps on mobile devices	64.9
To remove people from my contact list	64.2

4.5.3. Teachers

We asked teachers, as individuals who are considered information savvy, to assess their digital media usage using. Surprisingly, the order of the highest and the lowest confidence was the same as with student and parent respondents. Teachers' exhibited the highest level of confidence regarding the statement *"I give much consideration if someone I know on SNSs asks to meet"* (59.5%), with “strongly agree”. This was followed by *"I tend to be careful when posting comments on SNSs"* (52.8%), with “strongly agree”. Meanwhile, the lowest level of confidence was shown in regards to the statement *"I know more about the internet than my students"* (34.5%), with “disagree” (vis students [27.3% “agree”] and parents [30.4% “disagree”]). This study indicates that students, parents, and teachers are skeptical of their digital knowledge. In

the following table, we show a complete list of teachers' self-assessment of their digital media usage.

Table 4.13

Teachers' self-assessment of digital media usage

N=316

% …	**Strongly disagree**	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
I know more about the internet than my students	0.6	**34.5**	30.7	28.5	5.7
ICT helps my students finish their school projects better	0.0	1.3	4.4	**50.6**	43.7
There are lots of things on the internet that are good for me	0.0	0.0	2.2	**53.2**	44.6
I am more motivated to do many things with ICT	0.0	0.9	10.1	**56.6**	32.3
I find it easy to find a website I have visited before	0.0	2.8	15.2	**60.8**	21.2
I do not just copy and paste the articles I need to teach my students	0.6	3.2	5.1	**61.1**	30.1
I know which information I should and shouldn't share online	0.0	1.6	3.5	**55.7**	39.2
I always check the profile of someone who proposes becoming my "friend" on SNSs	0.0	1.3	7.6	**52.5**	38.6
I find it easier to maintain good relations with my friends and/or my family over the internet (e.g. through FB, WhatsApp, etc.)	0.0	3.8	10.4	**57.3**	28.5
I tend to be careful when posting comments on SNSs	0.0	0.0	1.6	45.6	**52.8**
I give much consideration if someone I know on SNSs asks to meet	0.0	0.0	0.9	39.6	**59.5**
I compare different websites to determine if information is true	0.0	0.6	7.0	**51.9**	40.5
I tend to be careful when revealing my identity online	0.0	0.9	2.5	**55.4**	41.1

As for digital skills, the most common among teachers was *"To remove people from my contact list"*, a skill indicated by 77.2% of teachers. This was followed by the ability *"To delete the record of which websites you have visited"*, with 64.9%. The least common digital skill among teachers (32.6%) was *"To create something new from*

photographs/videos/music that you have found online"; this skill was also the least common digital skill for parents (31.2%), perhaps owing to its status as an advanced media production ability that demands time and software to learn. In the following table, we show all of the digital skills possessed by teacher respondents.

Table 4.14

Teachers' digital skills

N=316

Teachers' capability	%
To change filter preferences to select which websites you want to see	40.2
To bookmark a website (add to favorites)	50.0
To block unwanted advertisements or junk/spam mail	48.7
To delete the record of websites you have visited	64.9
To change the privacy settings on your social network site profile	63.9
To block messages from someone you don't want to hear from	52.2
To create something new from photographs/videos/music that you have found online	32.6
To upload photographs/videos/music that you have create yourself	38.9
To install apps on mobile devices	56.0
To remove people from my contact list	77.2

4.6. Students' bullying experiences

4.6.1. As victim

Bullying is defined as repeated and intentional negative actions, either verbal—i.e. threatening, taunting, teasing, and calling names—or physical—i.e. hitting, kicking, pinching, or restraining—done to others (Olweus, 1993: 9). About 48.2% of student respondents had been victims of physical bullying at least once in the 12 months before the survey (N=1194). About 10.9% indicated that they had been victims of physical bullying "2–4 times" in this period, while 2.1% said that they had been physically

bullied "more than 10 times". In terms of location, 10.3% indicated that bullying occurred at school, 17.1% at home, and 2.9% at public spaces.

Even worse, about 71.2% of student respondents indicated that they had been victims of non-physical bullying (e.g. insults, threats, defamation, etc.) at least once in the 12 months before the study. Some 18.9% of them had experienced non-physical bullying "2–4 times" in this period, and 6.5% had experienced non-physical bullying "more than 10 times". In terms of location, 37.9% indicated that bullying occurred at school, 11.5% at home and 9% at public spaces.

Physical and non-physical bullying have been expanded through developments in communication technology, which have made it possible for bullies to send text messages, memes, or make telephone calls. The survey indicated that 48.5% of students had been the victims of cyberbullying at least once in the 12 months before the study. About 12.7% of them had experienced cyberbullying "2–4 times" during the study; only 2.8% of them had experienced cyberbullying "more than 10 times" in the past 12 months. Regarding types of cyberbullying, 18.5% indicated that they had been insulted (e.g. through text/pictures/videos/audio), 12.6% had been defamed (gossiped), and 11.1% had been removed from e-groups. Such bullying was done predominantly through SNSs such as Facebook, Instagram, and Twitter (22.1%) and instant messaging applications such as WhatsApp, Line, and BBM (25%).

Of the students who were victims of cyberbullying (N=579), 61.5% knew the perpetrator; 38.5% did not know the person who bullied them. We tried to ask how their feelings as the victims of online bullying. In general, they felt "a bit" depressed, anxious, worried about more problems, afraid to meet the perpetrator, sad, but

"somewhat" angry that they were bullied on the internet. The following table shows the feelings of student victims of cyberbullying.

Table 4.15

Students' feelings as victims of cyberbullying

N=579

% students felt …	Don't know	Not at all	A bit	Somewhat	Very	Extremely
Depressed	9.5	17.6	**38.3**	22.1	6.2	6.2
Anxious	8.8	15.2	**40.2**	23.5	7.4	4.8
Worried that worse problems would happen	8.8	15.5	**32.0**	24.0	12.3	7.4
Afraid to meet the perpetrator	8.5	29.7	**40.2**	11.9	6.4	3.3
Angry	7.6	12.8	26.1	**27.3**	14.2	12.1
Sad	8.6	19.3	**36.3**	20.0	9.7	6.0

Regarding whom they contacted about their experiences, 64.2% of student respondents indicated that they told others about their experiences; meanwhile, 35.8% kept their "depressing experience" as a personal secret. Student respondents who told others about their experiences seemed to feel more comfortable (55.8%) telling their friends. This was followed by students' mothers (28.8%). In table 4.16, we show the people whom students told about their bullying experiences.

Table 4.16

Person to Whom Students Told about Cyberbullying Experience

N=579

Person	%
Father	14
Mother	28.8
Brother/Sister	20
Friend	55.8
Teacher	2.8
Another adult I trust	13.1
Others	5.2

Regarding coping strategy, about 44.6% of victims of cyberbullying deleted the message from the perpetrator, while 31.1% blocked the perpetrator from sending further messages to them. 30.1% of victims also tried to change their account privacy/contact settings. In the following table, we show how student respondents coped with the problem of cyberbullying.

Table 4.17

How students coped with cyberbullying

N=579

Person	%
Stopped using the internet for a while	14.9
Deleted the message from the perpetrator	44.6
Changed privacy/contact settings	30.1
Blocked the perpetrator	31.1
Kept the evidence	12.3
Reported the problem to the ISP	6.2
Other	7.9

Aside from asking students about how they had coped with cyberbullying in the 12 months before the study, we asked them what they would do if they were bullied again. The deletion of perpetrators' messages remained their first choice (40.9%), followed by the blocking of the perpetrator (38.3%) and changing of privacy/contact settings (35.6%). In the following table, we show how student respondents would cope with cyberbullying if it happened again.

Table 4.18

How students would cope cyberbullying "next time"

N=579

Person	%
Stop using the internet for a while	15.4
Delete the message from the perpetrator	40.9
Change the privacy/contact settings	35.6
Block the perpetrator	38.3
Keep the evidence	18.7
Report the problem to the ISP	16.9
Other	4.7

4.6.2. As perpetrator

About 43.6% students who participated in this study said that they had acted as the perpetrator of physical bullying at least once in the 12 months before the study (N=1194). About 12.1% had perpetrated bullying "2–4 times" in this period, while 2.3% of them declared that they had physically bullied others "more than 10 times" in the 12 months before the study.

Of the 520 students who indicated that they had perpetrated physical bullying, 52.1% said that they had physically bullied their schoolmates, 23.5% said that they had physically bullied their younger siblings, and 11.5% said that they had physically bullied their older siblings. In the following table, we show whom students targeted for their physical bullying.

Table 4.19

Targets of physical bullying

N=520

Person	%
Junior in school	3.8
Senior in school	3.4
Schoolmate	52.1
Teacher	0.6
Playmate	10.8
Younger sibling	23.5
Older sibling	11.5
Parent	2.5
Other… but I won't tell	5.8
Other	3.1

We asked student respondents why they had physically bullied others. Surprisingly, 59.1% of them indicated that they had done it "just for fun", while 15.4%

gave "revenge" as their reason. In the following table, we show students' reasons for physically bullying others.

Table 4.20

Students' reasons for physically bullying others

N=520

Reason	%
To take revenge	15.4
Hate that person	6.0
Just following the members of my group	5.4
My friends/group pressured me	1.0
Just for fun	59.1
Others	11.2

As before, exposure to non-physical bullying was more common; about 60.7% of student respondents had been the perpetrators of non-physical bullying at least once in the 12 months before the study. About 17.3% had perpetrated non-physical bullying "2–4 times" in this period, and 11.7% had perpetrated non-physical bullying "5–7 times". Even worse, 5.3% of student respondents had bullied others "more than 10 times" in the 12 months before the study.

When inquired as to the identities of students' victims, about 61.5% indicated that they had non-physically bullied their schoolmates (N=725). This was followed by younger sibling (20.6%) and playmates (11.0%). In the following table, we show the people who were targeted for non-physical bullying by student respondents.

Table 4.21

Targets of non-physical bullying

N=725

Person	%
Junior in school	8.7
Senior in school	5.8
Schoolmate	61.5
Teacher	2.1
Playmate	11.0

Person	%
Younger sibling	20.6
Older sibling	10.8
Parent	3.6
Other… but I won't tell	8.1
Other	3.4

The most common reason for non-physically bullying others (60.3%) was "just for fun", followed by "to take revenge" (12.8%). In the following table, we show student respondents' reasons for non-physically bullying others.

Table 4.22

Students' reasons for non-physically bullying others

N=725

Reason	%
To take revenge	12.8
Hate that person	8.6
Just following the members of my group	6.1
My friends/group pressured me	1.4
Just for fun	60.3
Others	11.3

Holt et al. (2014) found that students who engaged in traditional bullying tend to also be involved in cyberbullying. We found about 40% of students had perpetrated cyberbullying at least once in the 12 months before the study. Of these, 11.1% had bullied others online "2–4 times" and 6.7% had bullied others online "5–7 times" in the 12 months before the study. Concerningly, 2.3% of students had bullied others online "8–10 times" and 2.1% of them had bullied others online "more than 10 times" in this period.

The most common type of cyberbullying (12.0%) was insulting. This was followed by removing others from e-groups (4.4%) and distributing personal

information without permission (2.6%). The most commonly used media for cyberbullying were instant messaging (20.5%), SNS (13.7%), and online games (3.7%).

Schoolmates was still the most common target of students' cyberbullying, having been targeted by 48.5% of respondents (N=478). This was followed by "other… but I won't tell" (10.7%) and playmates (9.0%). In the following table, we show the victims targeted by students who had perpetrated cyberbullying.

Table 4.23

Targets of cyberbullying

N=478

Person	%
Junior in school	7.3
Senior in school	3.3
Schoolmate	48.5
Teacher	0.8
Playmate	9.0
Younger sibling	3.6
Older sibling	5.2
Parent	0.2
Other… but I won't tell	10.7
Other	6.9

As their reason for bullying others, student respondents most commonly indicated that it was "just for fun" (48.1%). This was followed by "to take revenge" (15.1%). In the following table, we show students' reasons for bullying others online.

Table 4.24

Students' reason cyberbullied others

N=478

Reason	%
To take revenge	15.1
Hate that person	12.3
Just following the members of my group	5.2
My friends/group pressured me	1.9
Just for fun	48.1
Others	8.8

4.7. Social mediation

4.7.1. Parents' social mediation, as perceived by students

Regarding social mediation, we asked students how much they thought their parents knew about what they did on the internet. Their responses were measured using a five-point scale: nothing (1), just a little (2), quite a bit (3), quite a lot (4), and a lot (5). About 37.9% of student respondents thought their parents knew "quite a bit" about what they did on the internet; 22.3% thought that their parents knew "quite a lot"; and 5% thought that their parents knew "nothing" about what they did on the internet. Meanwhile, 6.5% of students answered this question with "I don't know" (N=1194).

Students were also asked whether they preferred their parents to show more, less, or the same level of interest in what they did on the internet. This was measured using a five-point scale: do not need to know at all (1), a lot less (2), a little less (3), a little more (4), and a lot more (5). About 35.2% of students answered "a little more"; 28.1% answered "a little less"; and only 18.4% answered that they preferred their parents take "a lot more" interest in what they did on the internet. About 2% of student respondents stated that their parents "do not need to know at all" what they did on the internet.

In measuring parents' active mediation, we asked students the extent to which their parents engaged with them while they interacted with digital media, using a five-point scale of intensity: never (1), rarely (2), sometimes (3), often (4), and always or almost always (5). We found, based on student's impressions, that parent's intensity in active mediation was moderate. In general, parents only "sometimes" engage actively in

students' internet activities. In table 4.25, we detail parents' engagement with their children's internet activities.

Table 4.25

Parents' active mediation, as perceived by students

N=1194

% students say that their parents …	Never	Rarely	Sometimes	Often	Always or almost always
Talk to you about what you do on the internet	7.6	19.1	**35.8**	27.1	10.4
Sit with you while you use the internet (watching what you are doing but not really joining)	14.3	26.6	**36.8**	16.8	5.5
Stay nearby when you use the internet	10.5	18.7	**37.9**	25.5	7.5
Encourage you to explore and learn things on the internet on your own	20.6	26.6	**31.3**	16.6	4.9
Do shared activities together with you on the internet (e.g. give comments on FB/WhatsApp/BBM, etc.)	24.6	18.8	**25.3**	20.1	11.2

In measuring parents' restrictive mediation, we asked students the extent to which their parents restricted their use of digital media using a three-point scale of restriction: "can never do this" (1), "can only do this with permission & supervision" (2), and "can do this anytime" (3). In general, students thought that their parents had given them the freedom to use digital media and conduct almost all types of internet activities at any time. Only for downloading paid apps and sharing personal information to others on the internet, they should have permission from their parents. In the following table, we show the types of internet activities and rules applied by parents.

Table 4.26

Parents' restrictive mediation, as perceived by students

N=1194

% students say that parents set rules for …	Don't know	Can never do this	Can only do with permission & supervision	Can do this anytime
Use instant messaging (e.g. BBM, WhatsApp)	3.3	0.6	10.1	**86.0**
Download music or films on the internet	9.5	1.4	16.8	**72.4**
Watch video clips on the internet (e.g. on YouTube)	7.3	1.5	23.0	**68.0**
Have your own social networking profile	4.9	1.2	12.8	**81.2**
Give out personal information to others on the internet (e.g. full name, address, or phone number)	16.1	26.9	**34.8**	22.3
Upload photographs/videos or music to share with others	17.5	11.9	27.5	**43.1**
Download free apps	6.0	1.2	11.1	**81.7**
Download paid apps	24.1	20.8	**31.8**	23.3
Show my geographical location (using Facebook, Foursquare, etc.)	24.6	14.7	22.3	**38.4**
Use a webcam	30.7	6.6	19.4	**43.3**

Co-using mediation requires parents to actively engage with the medium being used by their children. Using a five-point scale of intensity—never (1), rarely (2), sometime (3), often (4), and always or almost always (5)—we asked students how actively their parents engage with them in using digital media. Based on students' impressions, we found that parents had a moderate level of co-using mediation. However, parents seemed to actively give suggestions about careful behavior on the internet. In the following table, we show this tendency.

Table 4.27

Parents' co-using mediation, as perceived by students

N=1194

% students say that their parents …	Never	Rarely	Sometimes	Often	Always or almost always
Helped you when something is difficult to do or to find on the internet	21.6	17.7	**27.6**	21.6	11.5
Explain why some websites are good or bad	16.3	15.8	25.0	**27.6**	15.3
Suggested ways to use the internet safely	16.1	14.4	26.0	**28.5**	15.0
Suggested ways to behave towards other people online	11.4	8.2	25.4	**34.3**	20.8
Helped you in the past when something has bothered you on the internet	25.4	18.5	**25.7**	18.8	11.6
Talked to you about what you would do if something on the internet ever bother you	24.5	17.5	**25.1**	20.9	12.0

Furthermore, we asked students whether their parents monitored what they did when they used the internet. We used a five-point scale of intensity from never (1), rarely (2), sometime (3), often (4), and always or almost always (5). In general, parents were not curious about what their child did on the internet, but "sometimes" limit the duration of their child's internet use. In the following table, we show the monitoring activities in detail.

Table 4.28

Parents' internet activity monitoring

N=1194

% students say that their parents …	Never	Rarely	Sometimes	Often	Always or almost always
Curious to know which websites you visit	**37.8**	23.3	22.9	11.6	4.4
Curious to know the messages in your email or instant messaging account	**39.2**	22.3	22.2	11.7	4.6

% students say that their parents …	Never	Rarely	Sometimes	Often	Always or almost always
Curious to know your profile on a social network or online community	**27.5**	21.7	26.0	17.4	7.4
Curious to know which videos you have watched on YouTube?	**35.5**	21.4	26.5	11.6	5.0
Curious to know which friends or contacts you add to your social networking profile or instant messaging service	**32.2**	22.3	24.1	15.7	5.8
Limit the time you spend on the internet	24.4	15.1	**28.9**	22.7	9.0

We also asked participating students whether their parents technically mediated their interactions with the internet. About 15.1% of student respondents said that their parent kept track of the websites they visited. Only 7.9% of student respondents said that their parent blocked or filtered specific types of website. A further 33.4% of student respondents said that their parents used specific software to prevent spam/junk mail or viruses. Technical mediation requires parents to have a higher level of ICT knowledge, as well as the financial resources to buy specific software.

We further asked students whether their parents had helped them to make better use of the internet. About 42.2% students said that their parents had helped them "A lot" and 41.6% answered "yes, a little". However, 7.5% of student respondents felt that their parents had not helped them use the internet better, and 8.7% answered "Do not know".

Conversely, we asked students whether they felt that their parents restricted their internet use. About 44% of student respondents said that their parents restricted their internet use "a lot" and 36.7% said that their parents restricted their internet use "a little". However, 11.6% felt that their parents did not restrict them and 7.7% answered "Do not know".

Parents' restrictions of students' internet use may be detrimental to their relations. We asked students where they accessed internet safety information, with the exception of their parents. The internet (websites) was student respondents' first choice for getting information on internet safety (69.2%). This was followed by relatives (66.2%) and television (64.2%). In table 4.29, we show several parties who provide students with information on internet safety.

Table 4.29

Students' sources of information on internet safety

N=1194

Source	%
My school's staff (e.g. librarian, laboratory staff, etc.)	27.4
Television	64.3
Radio	19.3
Magazine/Newspaper	42.0
Internet (websites)	69.2
Internet service provider	16.7
Government staff	19.3
Indonesian Commission for the Protection of Children (KPAI)	12.9
Children's NGO	6.0
Relatives (e.g. brother, sister, aunt, uncle, grandparent, etc.)	66.2
Others	4.0

4.7.2. Friends' and teachers' social mediation, as perceived by students

Within their peer group, students usually feel more comfortable in their social interactions, either when asking for help or chatting without feeling watched by their parents. Using a five-point scale of intensity—never (1), rarely (2), sometime (3), often (4), and always or almost always (5)—we asked students whether their friends had helped them cope with problems in internet use. We found that friends are reliable in providing practical advice to students to solve daily internet problems. However, for

general internet safety, students "sometimes" ask their friends. In the following table, we show friends' engagement in students' internet activities.

Table 4.30

Friends' co-using mediation, as perceived by students

N=1194

% students who say that their friends …	Never	Rarely	Sometimes	Often	Always or almost always
Helped you when something is difficult to do or find on the internet	3.9	6.9	29.5	**43.6**	16.2
Explained why some websites are good or bad	15.2	19.5	**35.5**	22.5	7.3
Suggested ways to use the internet safely	13.8	19.3	**34.0**	24.7	8.1
Suggested ways to behave towards other people online	14.7	20.5	**30.8**	25.6	8.3
Helped you in the past when something bothered you on the internet	13.1	15.2	**33.7**	28.1	10.0
Talked to you about what you would do if something on the internet ever bothered you	14.2	18.7	**32.0**	25.1	10.0

Conversely, when we asked whether they helped their friends to safely use the internet, about 45.1% of student respondents answered "sometimes", 23.7% answered "often", and 16.9% answered "rarely". Meanwhile, 8.6% answered "never".

Regarding schools' role in mediating internet use, we asked students whether their teachers helped them to deal with problems when using the internet. Based on students' impressions, we found that teachers' co-using mediation was better than that of parents and friends. This is detailed in the following table.

Table 4.31

Teachers' co-using mediation, as perceived by students

N=1194

% students say that their teachers …	Never	Rarely	Sometimes	Often	Always or almost always
Helped you when something is difficult to do or find on the internet	12.6	18.4	**33.7**	24.3	11.0
Explained why some websites are good or bad	8.5	13.6	30.6	**34.4**	13.0
Suggested ways to use the internet safely	8.6	12.6	32.2	**33.8**	12.8
Suggested ways to behave towards other people online	9.5	11.8	31.9	**34.3**	12.6
Helped you in the past when something bothered you on the internet	23.4	19.8	**31.2**	18.4	7.2
Talked to you about what you would do if something on the internet ever bothered you	22.2	20.0	**31.2**	19.6	7.0
Made rules about internet use at school	11.6	12.6	28.2	**30.7**	16.8
Talked to you about rules for smartphone usage in school	8.0	8.5	24.0	**34.8**	24.6

4.7.3. Teachers' social mediation

In this section, we describe the social mediation role done by teachers. Culturally, teachers are highly respected in Indonesia society. They are considered to be well-educated persons, who enlighten society with their wisdom and knowledge. In the social mediation of students' internet use, schools—through teachers—are expected to enlighten parents when they are not as computer savvy as their children (Beale and Hall, 2007).

As persons who interact with students at school every day, we found that teachers are performing their best. Although they only talk with their students "sometimes" about their internet activities, they never explicitly encourage their students to explore and to learn things on the internet. They sometime share activities

together with students through such media vehicles as class e-groups, Facebook, or WhatsApp groups. They also frequently promote good internet behavior and encourage students to critically consider the impact of internet media. In the following table, we show teachers' active mediation activities.

Table 4.32

Teachers' active mediation

N=316

% …	Never	Rarely	Sometimes	Often	Always or almost always
Talk to your students about what they do on the internet	9.8	11.7	**59.2**	16.8	2.5
Encourage your students to explore and learn things on the internet on their own	**44.0**	20.9	21.2	13.3	0.6
Do shared activities together with your students on the internet (e.g. give comments on FB/WhatsApp/BBM, etc.)	17.7	23.7	**30.4**	23.7	4.4
Make agreements between students and teachers regarding "good internet communication"	14.6	15.5	25.3	**36.1**	8.5
Conducting teaching activities using internet media (e.g. watching / critiquing internet media)	10.4	13.9	32.9	**38.0**	5.1

Regarding restricted mediation, we asked teachers what activities students should or should not do on the internet, using a three-point scale: can never do this (1), can only do this with permission & supervision (2), or can do this anytime (3). Most teacher respondents gave the normative answer that students should get permission and supervision for what they do on the internet. In the following table, we show their answers in detail.

Table 4.33

Teachers' perspectives of restrictive mediation

N=316

% teachers think that their student …	Can never do this	Can only do this with permission & supervision	Can do this anytime
Use instant messaging (e.g. BBM, WhatsApp)	3.2	**77.5**	19.3
Download music or films on the internet	0.9	**86.1**	13.0
Watch video clips on the internet (e.g. on YouTube)	1.9	**85.4**	12.7
Have their own social networking profile	0.9	**75.6**	23.4
Give out personal information to others on the internet (e.g. full name, address or phone number)	22.5	**68.7**	8.9
Upload photographs/videos or music to share with others	13.3	**72.8**	13.9
Download free apps	2.5	**70.9**	26.6
Download paid apps	11.1	**81.0**	7.9
Show off their geographical location (using Facebook, Foursquare, etc.)	23.1	**62.3**	14.6
Use a webcam	9.8	**66.5**	23.7

In active mediation, teachers tried to do their best through suggested ways to behave towards other people online and helped students in the past when something bothered them on the internet. Considered as persons with better in internet savvy, teachers "sometimes" helped students when they found something difficult on the internet, and suggested way to use internet safely. In table 4.34, we show teachers' active mediation to their students.

Table 4.34

Teachers' active mediation of children's internet safety, according teachers

N=316

% …	Never	Rarely	Sometime	Often	Always /Almost always
Helped them when something is difficult to do or find on the internet	11.1	21.2	**44.9**	19.3	3.5

% ...	Never	Rarely	Sometime	Often	Always /Almost always
Explained why some websites are good or bad	13.0	19.3	**34.8**	28.2	4.7
Suggested them ways to use the internet safely	12.3	19.0	**38.3**	23.1	7.3
Suggested ways to well-behave towards other people online	1.3	16.8	35.4	**39.6**	7.0
Made internet usage's rule at school	15.8	14.6	30.7	**32.9**	6.0
Helped them in the past when something bothered you on the internet	22.8	23.7	**31.6**	20.3	1.6
Talked to them about what they would do if something on the internet ever bothered them	24.7	23.4	**27.8**	21.8	2.2

We asked teachers whether they think that they helped their students to make use internet better so far. Most teachers said that they teach "a little" internet safety to their students and they also tend to restrict their students' internet access "a little". In terms of keeping up-to-date on information and advice for supporting students' internet activities and keeping them safe, teachers rely on several sources. For teachers, family or friends are the main source of internet safety information (76.6%). This is followed by television (69.9%), magazines/newspapers (68.4%), students (63.3%), and the internet/websites (57.3%). In the following table, we show sources from which teachers get information on safety internet for their students.

Table 4.35

Teachers' Sources of Internet Safety Information

N=316

Source	%
Students' parents	57.0
Students	63.3
Television	69.9
Radio	35.1
Magazine/Newspaper	68.4
Internet (website)	57.3

Source	%
Internet service provider	38.6
Government staff	46.8
Indonesian Commission for the Protection of Children (KPAI)	46.2
Children's NGO	33.2
Manufactures'/retailers' ICT products/services	18.7
Family or friends	76.6
Others	2.8

4.7.4. Teachers' awareness of and attitudes towards (cyber)bullying

As the persons closest to students, after students' parents, teachers can inhibit the spread of cyberbullying (Kwan and Skoric [2012], Park et al. [2014]). As such, teachers were asked whether they noticed or were aware of their students experiencing something that bothered them on the internet in some way in the 12 months before the study. Almost half of them (41.5%) said "I don't know". This could be a factual answer, as teachers are not with their students at all times. Should students not tell teachers about their problems, it is difficult for teachers to be aware of students' cyberbullying experiences. In the following table, we show teachers' answers.

Table 4.36

Teachers' awareness of their students' cyberbullying experiences

N=316

Cyberbullying Awareness	%
Never	25.6
Rarely	19.6
Sometime	12.7
Often	0.6
Always or almost always	0.4
Don't know	41.5

When asked further about what kinds of event had particularly disturbed their students, some teachers—like parents—answered with technical problems, e.g. pop-up advertisements, slow internet connection, and weak internet signal. However, some

teachers answered that students had been bullied through Facebook, been tagged in pornographic pictures, invited to meet by a stranger, had their account hacked and used by others, been insulted by others through SNSs, were worried about coverage of kidnapping on the internet, etc.

Teachers were further asked how their students felt disturbed online. Almost two-thirds (60.4%) answered "I don't know". However about 2.2% of teacher respondents knew that students were very upset. In the Indonesian school system, schools often provide counselors who can help students with non-academic issues. As such, not all teachers will know of students' personal problems unless they are told.

Table 4.37

How students feel disturbed online, according to their teachers

N=316

Child's feeling	%
Not at all upset	14.6
Fairly upset	14.9
A bit upset	7.9
Very upset	2.2
I don't know	60.4

Teachers were asked about their attitudes regarding bullying in school and in cyberspace, as measured using a five-point scale of agreement: strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5). In general, teachers considered bullying in school and in cyberspace to be crucial problems for Indonesian adolescents. Teachers think that cyberbullying could negatively affect students' achievement, and as such were concerned about this problem. Mostly agreed that schools should have assertive policies to prevent bullying at school and on the internet, and that schools should involve parents in the overcoming of bullying in school

and on the internet. In the following table, we show teachers' awareness and attitudes towards school bullying and cyberbullying.

Table 4.38

Teachers' attitudes towards school bullying and cyberbullying

N=316

% teachers who think that …	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Cyberbullying is an actual problem for adolescents in Indonesia	2.8	3.2	10.1	**63.0**	20.9
Bullying has a bad influence on students' achievement	0.9	1.6	2.5	**61.1**	33.9
As a teacher, I am concerned about cyberbullying	0.9	0.6	2.8	**59.8**	35.8
Schools should have an assertive policy to prevent bullying in school and on the internet	0.8	1.3	2.5	**55.7**	39.6
Schools should involve parents in overcome bullying at school and on the internet	0.9	0.0	2.2	**58.9**	3ß.0

4.7.5. Parents' awareness of and attitudes towards (cyber)bullying

We asked parents whether, as part of parental mediation at home, they had ever noticed or been aware that their children had seen or experienced something on the internet that bothered them in the 12 months before the study. Almost two-thirds of parents answered that they had "never" noticed or been aware of such cases. In table 4.39, we show parents' awareness of the cyberbullying that their children may have experienced.

Table 4.39

Parents' awareness of their children's cyberbullying experiences

N=536

Cyberbullying Awareness	%
Never	61.9
Rarely	21.1
Sometime	9.7
Often	1.9

Cyberbullying Awareness	%
Always or almost always	0.4
Don't know	5.0

Parents were further asked, *"Could you tell us about an event or something that particularly disturbed your child?"*. Most parents did not answer this open question. Some mentioned technical problems e.g. weak signal, unstable internet network, lengthy buffering times, too many advertisements on social media, etc. However, some gave "the expected answers", e.g. game addiction, exposure to pornographic websites, rude comments on SNSs, pornographic pictures shared on SNSs, friends shared personal pictures without asking, students were mocked in a WhatsApp group, strangers invited children to chat, and SNS accounts were hacked by strangers.

Parents were also asked how upset their children felt about the disturbances they experienced. About 23.5% of parents thought that their child felt "fairly upset"; 48.7% did not know how their child felt. In the following table, we show how parents perceived their children's level of emotional distress.

Table 4.40

How children felt after being disturbed online, according to their parents

N=536

Child's feeling	%
Not at all upset	10.1
Fairly upset	23.5
A bit upset	14.7
Very upset	3.0
I don't know	48.7

To discover parents' attitudes about cyberbullying, they were to apply a five-point scale—strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5)—to indicate their agreement with specific statements. In general,

parent respondents indicated that they think bullying is a terrible behavior. Although almost two-thirds of parent respondents did not notice or were unaware of whether their children were exposed of cyberbullying, parent respondents agreed that cyberbullying is an actual problem for Indonesian youths. They also agreed that bullying could negatively influence adolescents' psychological condition, worrying about the effects of (in school and on the internet) on their children. Therefore, they strongly agreed that schools should have strict policies to prevent bullying in school and on the internet. Finally, they also agreed to being involved by schools in addressing problems with bullying. In the following table, we show the mean value of parents' awareness of and attitudes towards bullying and cyberbullying.

Table 4.41

Parents' attitudes about school bullying and cyberbullying

N=536

% parents think that …	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Cyberbullying is an actual problem for adolescents in Indonesia	1.5	2.1	12.7	**56.1**	27.1
Bullying has a bad influence on students' achievement	0.0	0.6	5.4	**47.8**	46.3
As a parent, I am concerned about cyberbullying	0.0	0.6	5.8	**50.0**	43.7
Schools should have an assertive policy to prevent bullying in school and on the internet	0.0	0.0	6.7	43.1	**50.2**
Schools should involve parents in overcome bullying at school and on the internet	0.2	1.1	9.5	**47.4**	41.8

We asked parents from whom they received information and advice about helping and supporting their children on the internet and keeping children safe. Parent respondents indicated that television is their main source of information on internet safety (74.6%), followed by magazines/newspapers (64.7%) and family and friends

(64.0%). schools (45.7%) and children (47.0%) also contribute internet safety information. In the following table, we show sources of information on internet safety that are used by parents.

Table 4.42

Parents' Sources of Information on Internet Safety

N=536

Source	%
My child's school	45.7
Television	74.6
Radio	29.5
Magazine/newspaper	64.7
Internet (website)	36.9
Internet service provider	28.5
Government staff	36.4
Indonesian Commission for the Protection of Children (KPAI)	25.9
Children's NGO	9.7
Manufactures'/retailers' ICT products/services	10.8
Family or friends	64.0
My child	47.0
Others	1.5

4.7.6. Pairing students and their parents to understand parental mediation

The responses of student and parent respondents were paired in this study to explore how parents mediate their children's access to information and communication technology in general, which is associated with children's digital literacy and bullying experiences in digital space. This is also intended to know how children perceive their parents' mediation.

This pairing was conducted by coding parents' and students' answers to four questions at the beginning of their respective questionnaires. These answers were coded into numerical data; the four numerical codes were expected to precisely pair students with their parents.

Table 4.43

The four questions for pairing students with their parents

Student	Parent
Please indicate the last letter of your first name…	Please indicate the last letter of your son/daughter's first name (who became a respondent for this research) …
Please indicate your date of birth …	Please indicate your son/daughter's (who became a respondent for this research) birth date…
Please indicate the last letter of the name of the street on which you live …	Please indicate the last letter of the name of the street on which you live …
Please indicate the last letter of your mother's first name …	Please indicate the last letter of the first name of the mother of the boy/girl who became a respondent for this research …

Examining the results, these four questions could not optimally pair students and their parents. These questions might have been confusing, and thus answered randomly. The resulting numeric codes were not unique, and too many duplicates were available to identify which parent belonged to which student. The verification process could have involved other variables that were asked of both respondents, including the child's age, child's grade, child's school type (public or private), parent's education, and parent's occupation. However, this procedure took too much time. This could indicate a weakness in this research.

The pairing process produced only 255 student–parent pairs (of 1,194 students and 536 parents). The following section describes parents' mediation of their children.

Table 4.44

How much do parents know about their children's internet use, according to students and their parents

N=255

% who say …	Parent				Children			
	Nothing	Just a little	Quite a bit	A lot	Nothing	Just a little	Quite a bit	A lot
How much do you think you know about what your child does on the internet?	4.3	12.9	**65.5**	17.3	8.2	14.9	38.0	**38.7**

Table 4.44 shows that almost two-thirds of parents think that they know quite a bit (65.5%) about their children's internet use. Meanwhile table 4.45 shows about 50.6% of parents would like to know a lot more about what their children do on the internet. A similar response was provided by student respondents. About 38.0% of student respondents thought that their parents knew much about what they did on the internet; however, 40.0% of children wanted their parents to know a little more about what they do on the internet. This confirms parents' expectations that they know a lot about what their children do on the internet.

Table 4.45

Would students like their parents to take more or less interest in what they do online, according to students and their parents

N=255

% who say …	Parent					Children				
	Not at all	A lot less	A little less	A little more	A lot more	Not at all	A lot less	A little less	A little more	A lot more
Would you like your parents to take more or less interest in what you do on the internet?	1.2	1.2	9.8	37.3	**50.6**	5.1	4.7	25.9	**40.0**	24.3

In term of active mediation, talking with children about what they do on the internet is the most common form of mediation done by parents (41.6%). It was confirmed by student respondents that their parents often talk with them about what they do on the internet (34.1%). Parent respondents indicated that they never encourage their children to explore and learn things on the internet (33.7%), but student respondents said that sometimes their parents do (28.6%). Sitting with children while they use internet “sometimes” was done by parents (37.6%), and it was confirmed by

student respondents (34.5%) that their parents sometimes sit with them when they use internet.

Table 4.46

Parent's active mediation of children's internet use, according to students and their parents

N=255

% who say that parents have…	Parent					Children				
	Never	Rarely	Sometime	Often	Always /Almost always	Never	Rarely	Sometime	Often	Always /Almost always
Talk to you about what you do on the internet	3.9	4.7	37.6	**41.6**	12.2	5.1	19.2	29.0	**34.1**	12.5
Sit with you while you use the internet (watching what you are doing but not really joining)	5.5	12.5	**37.6**	36.1	8.2	10.2	27.5	**34.5**	18.0	9.8
Stay nearby when you use the internet	10.6	8.2	35.7	**36.9**	8.6	9.4	17.6	**32.9**	29.0	11.0
Encourage you to explore and learn things on the internet on your own	**33.7**	20.0	27.5	17.6	1.2	19.6	24.3	**28.6**	22.4	5.1
Do shared activities together with you on the internet (e.g. give comments on FB/WhatsApp/BBM, etc.)	22.7	14.1	**29.0**	27.5	6.7	21.2	12.9	**27.1**	25.1	13.7

Suggesting ways to behave towards other people online is one common way for parents to actively mediate their children's internet safety (49.8%). This was also confirmed by student respondents, who indicated that their parents often suggest ways of behaving towards others on the internet (38.0%). Generally, parents actively mediate their children, their children recognize that their parents are doing so. In general, parents do their best to actively mediate their children. This was affirmed by their children, as shown in the following table.

Table 4.47

Parents' active mediation of children's internet safety, according to students and their parents

N=255

% who say that parents have…	Parent					Children				
	Never	Rarely	Sometime	Often	Always /Almost always	Never	Rarely	Sometime	Often	Always /Almost always
Helped you when something is difficult to do or find on the internet	14.9	16.9	**32.2**	26.3	9.8	16.1	17.3	**27.5**	25.5	13.7
Explained why some websites are good or bad	5.1	7.5	24.7	**45.1**	17.6	11.0	14.9	21.2	**32.5**	20.4
Suggested ways to use the internet safely	4.3	7.5	22.0	**47.5**	18.8	11.4	14.1	21.6	**33.3**	19.6
Suggested ways to behave towards other people online	2.4	4.3	17.3	**49.8**	26.3	5.9	7.5	20.0	**38.0**	28.6
Helped you in the past when something bothered you on the internet	16.9	15.7	20.0	**30.8**	16.9	20.4	15.3	**26.3**	21.6	16.5
Suggested ways to use the internet safely	12.5	12.5	23.5	**34.5**	16.9	20.0	14.5	**27.5**	22.7	15.3

Parents also attempt to apply restrictive mediation to their children. This is shown in Table 4.48 below. Downloading paid apps and sharing real-time geographical

location (e.g. by Facebook, Foursquare, etc.) are two kinds of activities that parents prohibit. Parents also expect their children to seek their permission when giving out personal information (e.g. full name, address, phone number, etc.) to others on the internet, especially for children between the ages of 12 and 15. However, these "prohibitions" seem "not applicable" to children, as children think that they can do these activities at any time e.g. download music and films, watch video clips, share photographs and videos with others, share real-time location, etc. However, using instant messaging applications, having an SNS profile, and downloading free applications may be done by children at any time.

Table 4.48

Parent's restrictive mediation of children's internet use, according to students and their parents

N=255

% who say that parents have…	Parent			Children		
	Can never do this	Can only do this with permission & supervision	Can do this anytime	Can never do this	Can only do this with permission & supervision	Can do this anytime
Use instant messaging (e.g. BBM, WhatsApp)	0.4	31.4	**68.2**	1.6	11.0	**83.5**
Download music or films on the internet	4.7	**48.6**	46.7	3.1	19.6	**72.2**
Watch video clips on the internet (e.g. on YouTube)	6.7	**58.0**	35.3	2.7	25.9	**66.7**
Have your own SNS profile	5.9	38.0	**56.1**	2.0	12.2	**82.4**
Give out personal information to others on the internet (e.g. full name, address, or phone number)	44.3	**47.8**	7.8	29.4	**35.3**	20.8
Upload photographs, videos, or music to share with others	23.9	**53.7**	22.4	13.7	29.0	**41.2**
Download free apps	3.1	**49.0**	47.8	2.7	12.2	**80.4**
Download paid apps	**46.3**	40.8	12.9	23.9	**32.9**	18.4
Share your geographical location with others (using Facebook, Foursquare, etc.)	**41.6**	38.0	20.4	15.7	22.0	**38.0**
Use a webcam	30.2	**41.2**	28.6	5.9	20.4	**43.9**

As seen in Table 4.49, parents are generally curious about their children's internet activities, especially with whom their children communicate on SNS and instant messaging applications, as well as the videos/films they watch on the internet. Parents are concerned that their children may meet "bad guys" or watch pornographic videos/films, both of which could negatively influence their children. However, student respondents indicated that they do not think their parents really monitor/control what they do with the internet.

Table 4.49

Parents' monitoring of children's internet use, according to students and their parents

N=255

% who say that parents have…	Parent					Children				
	Never	Rarely	Sometime	Often	Always /Almost always	Never	Rarely	Sometime	Often	Always /Almost always
Curious to know which websites you visit	13.7	11.4	**32.5**	30.6	11.8	**35.3**	22.0	22.0	14.7	6.7
Curious to know the messages in your email or instant messaging account	12.2	12.9	**38.0**	27.8	9.0	**36.9**	23.1	22.7	10.2	7.1
Curious to know your profile on a social network or online community	11.4	14.1	**35.3**	29.0	10.2	23.1	20.4	**27.5**	19.6	9.4
Curious to know which videos you have watched on YouTube?	10.2	14.5	28.6	**34.1**	12.5	**29.4**	21.2	23.5	17.3	8.6

% who say that parents have…	Parent					Children				
	Never	Rarely	Sometime	Often	Always /Almost always	Never	Rarely	Sometime	Often	Always /Almost always
Curious to know which friends or contacts you add to your social networking profile or instant messaging service	11.8	12.9	**29.4**	29.0	16.9	32.5	17.3	**28.2**	13.3	8.6
Limit the time you spend on the internet	11.8	8.6	25.1	**32.9**	21.6	19.2	16.9	**29.8**	22.0	12.2

Table 4.50 shows that most students indicated that their parents did not apply technical mediation on their digital devices, even though their parents admitted to keeping track of the website their children visit and installing software to prevent spam/junk mail or viruses. This contradiction makes sense, as generally parents and children access the internet using mobile phones. Mobile phones are "personal" devices that are not easily changed or modified by others. Furthermore, technically mobile phones have limited memory capacity, and thus cannot have diverse software installed on them.

Table 4.50

Parents' technical mediation of children's internet use, according to students and their parents

N=255

% who say…	Parent		Children	
	No	Yes	No	Yes
Parental control or other means of keeping track of the websites you visit	48.6	**51.4**	**80.0**	20.0
Parental control or other means of blocking or filtering some types of websites	**57.6**	42.4	**86.7**	13.3
Software to prevent spam/junk mail or viruses	41.2	**58.8**	**63.9**	36.1

Table 4.51 shows that both parent and student respondents affirmed that parents help their children have "a lot" better internet experience.

Table 4.51

Is parental mediation helpful for better internet experience, according to students and their parents

N=255

% who say…	Parent			Children		
	No	Yes, a little	Yes, a lot	No	Yes, a little	Yes, a lot
Do you think that your parents relate to help make your internet experience better, or not really?	3.9	44.7	**47.1**	5.1	40.0	**46.7**

However, in some way student respondents indicated that parents restrict what they do with the internet a "little bit"; this was affirmed by parent respondents.

Table 4.52

Does parental mediation limit children's internet activity, according to students and their parents

N=255

% who say…	Parent			Children		
	No	Yes, a little	Yes, a lot	No	Yes, a little	Yes, a lot
Do you think that your parents limit what you can do on the internet, or not really?	16.1	**51.0**	31.8	14.5	**40.8**	37.3

Table 4.53 presents the results of crosstabulation between student and parent responses on cyberbullying experience awareness. It shows parents' confirmation about their recognition of their children's experiences with things that bothered them on the internet in the 12 months before the study. Of 255 parents, 14 answered "Don't know"; this is categorized as a missing value. Meanwhile, about 31.5% of students and parents answered "No", which could indicate that cyberbullying had not been experienced. About 30.3% of parents answered "Yes" when their child answered "No"; this may indicate that cyberbullying happened to students, but they did not think much of it. Meanwhile, about 18.3% of students answered "Yes" when their parent answered "No"; this may indicate that cyberbullying happened, but the parent did not recognize it. About 19.9% of students and parents both answered "Yes", potentially indicating that both were concerned with cyberbullying.

Table 4.53

Do parents know when their children are bullied online, according to students and their parents

N=241

%		As far as you are aware, has **your child** seen or experienced something on the internet in the past 12 months that has bothered them in some way?		**Total**
		No	**Yes**	
In the past 12 months, have **you** seen or experienced something on the internet that has bothered you in some way?	**No**	31.5	30.3	61.8
	Yes	18.3	19.9	38.8
Total		49.8	50.2	100.0

4.8. Hypotheses Testing

Before the hypotheses were tested, the reliability of each variable was tested to determine the internal consistency of the items in the scale. In the following table, we show the Cronbach's alpha coefficient of each variable. Details may be found in the Appendix H (p. 230).

Table 4.54

Reliability score of variables

Variable	Cronbach α
Internet access	.443
Internet use	.768
Privacy practices	.644
Digital literacy	.761
Cyberbullying experiences	.793
Social mediations	.932

According to Gliem and Gliem (2003), the closer the Cronbach's alpha coefficient of the variable is to 1.0, the greater its internal consistency. George and Mallery in Gliem and Gliem (2003) determined Cronbach alpha coefficient "_>.9 as

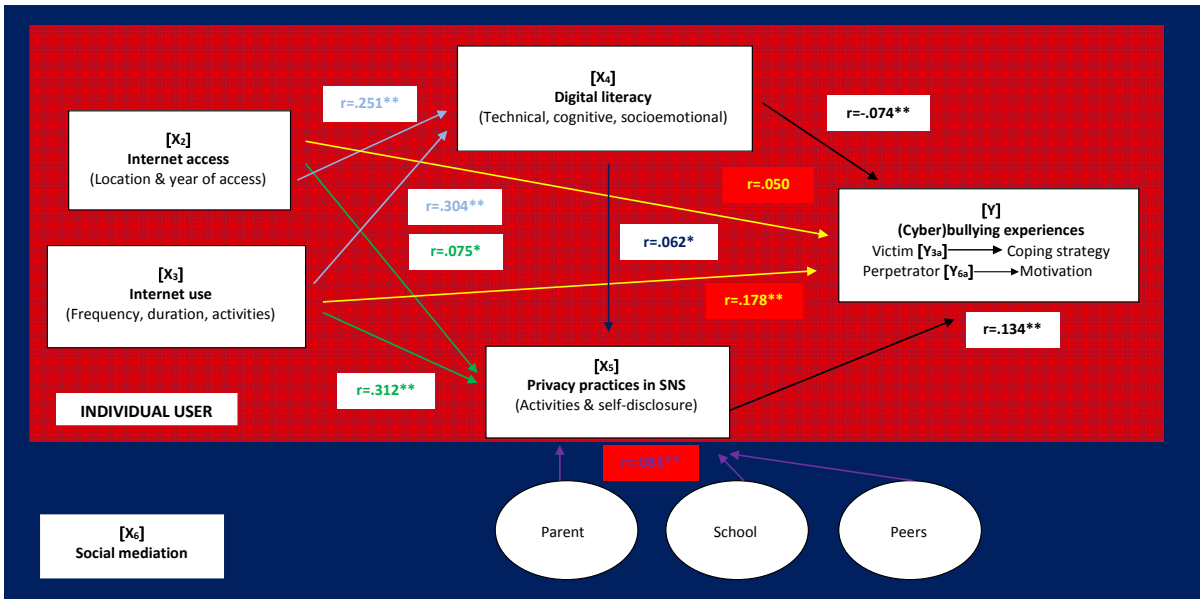
Excellent, _>.8 as Good, _>.7 as Acceptable, _>.6 as Questionable, _>.5 as Poor, and _<.5 as Unacceptable". The Cronbach alpha score of internet access and privacy practices are noted as a weakness of this study. The questions in those variables are not good enough to measure the respective concept. Those should be improved for the next research. Though at the risk of weakening relationships with other variables, for conceptual reasons those two variables are still used in statistical analysis. Previous study by Livingstone and Helsper (2009) noted that better internet access had a significant direct influence on internet use to gain online skills. Furthermore, linearity variables test between internet access (as independent variable) and digital literacy (as dependent variable) showed that the relationship between variables has met linear assumptions because the Deviation from Linearity is in the insignificant range (F=.351; p>.05). Its linearity assumption is quite strong because F-Linearity is in a significant range (F=80.030; p<.01). Details may be found in the Appendix I (p. 243).

Meanwhile, privacy practices, - which are realized as activities and self-disclosure activities -, is a dilemmatic issue of one's participation on SNSs, especially adolescents. On the one hand, social networking can help adolescents achieve personal development but on the other hand it reveals their private information to the public, where it becomes susceptible to misuse (Peter and Valkemburg, 2011; Walther, 2011). Linearity variables test between privacy practices (as independent variable) and cyberbullying experiences (as dependent variable) showed that the relationship between variables has met linear assumptions because the Deviation from Linearity is in the insignificant range (F=.890; p>.05). Its linearity assumption is quite strong because F-Linearity is in a significant range (F=21.114; p<.01). Details may be found in the Appendix I (p. 243).

In further the hypotheses of this study have been tested to explore the relations between variables in more detail. Figure 4.1 is summary of correlation analysis results in this study. The degree of coefficient correlation is indicated by the r number. Similarity in arrow's and r number's color indicates certain variable correlation. Whereas the complete list of coefficients correlations between variables are shown in Appendix J (p. 245) Table 4.8.5.

Figure 4.1

Summary of correlation analysis



**p<.01
*p<.05

Adapted from EU Kids Online (Livingstone & Haddon, 2012)

4.8.1. Male students accessed the internet higher than female students.

H1: There is a difference between male **[X_{1a}]** and female **[X_{1b}]** students in internet access **[X_2].**

In Hypothesis 1, we predicted a difference between male and female students' internet access. We assumed that the social and psychological characteristics of users affect how they use the internet. We used the number of male students (412) as a reference and randomly selected 412 (of 782) female students using the SPSS 20 system, ensuring an equal sample of both groups. An independent sample t-test was conducted to compare the internet access of male and female students.

The results show a significant difference in the score of female (M=3.89, SD=1.01) and male (M=4.05, SD=1.12) students, with the condition N=824, t (814.09) =-2.16, p=0.031. It suggests a difference in how male and female students access the internet. These results support Hypothesis 1. Please refer to Appendix J (p. 245) Table 4.8.1. for the comprehensive result of independent sample t-test between male and female's students on their internet access.

4.8.2. Female students are more active than their male peers in using the internet.

H2: There is a difference between male **[X_{1a}]** and female **[X_{1b}]** students in internet use **[X_3].**

In Hypothesis 2, we predicted a difference between male and female students' internet use. We use the number of male students (412) as a reference and randomly selected 412 (of 782) female students using the SPSS 20 system, ensuring an equal sample of both groups. An independent sample t-test was conducted to compare the internet access of male and female students.

Computation showed a significant difference in the scores of female (M=76.0, SD=13.02) and male (M=80.72, SD=14.09) students, with the conditions N=824, t

(816.94) =-4.99, p=0.000. This suggests a difference between male and female students' internet use. These results supported Hypothesis 2. Please refer to Appendix J (p. 245) Table 4.8.2. for the comprehensive result of independent sample t-test between male and female's students on internet use.

4.8.3. Both students' public and private schools have similarity in internet access.

H3: There is a difference between students from private schools **[X_{1e}]** and students from public schools **[X_{1f}]** in internet access **[X_2].**

In Hypothesis 3, we predicted a difference between public and private school students' internet access. Previous research indicated that, because of their economic backgrounds, private school students access internet from their homes more often than their colleagues from public schools. Meanwhile, public school students access the internet from internet cafés or their schools. We used the number of private school students (522) as a reference and randomly selected 522 (of 672) public school students using the SPSS 20 system, ensuring an equal sample of both groups. An independent sample t-test was conducted to compare the internet access of public and private school students.

The results show that there is no significant difference in the scores of public school (M=4.00, SD=1.05) and private school students (M=3.98, SD=1.12), with the condition N=1044, t (1042) =.372, p=0.710. This suggests that there is no difference in public and private school students' internet access. Please refer to Appendix J (p. 245) Table 4.8.3. for the comprehensive result of independent sample t-test between public and private school's students on their internet access.

4.8.4. Private school students use internet higher than their colleagues from public school.

H4: There is a difference between students from private schools **[X_{1e}]** and students from public schools **[X_{1f}]** in internet use **[X_3].**

In Hypothesis 4, we predicted a difference between public and private school students' internet use. We used the number of private school students (522) as a reference and randomly selected 522 (of 672) public school students using the SPSS 20 system, ensuring an equal sample of both groups. An independent sample t-test was conducted to compare the internet use of public and private school students.

Computations showed a significant difference in the scores of public (M=76.76, SD=12.96) and private school students (M=78.50, SD=13.55), with the condition N=1044, t (1042) =-2.11, p=0.035. These results suggest that there is a difference between public and private school students' internet use. These results supported Hypothesis 4. Please refer to Appendix J (p. 245) Table 4.8.4. for the comprehensive result of independent sample t-test between public and private school's students on their internet use.

4.8.5. The higher the SES level the greater the possibility that students could access and use the internet.

H5: SES **[X_{1g}]** has a positive correlation with internet access **[X_2]** and internet use **[X_3].**

We proposed the hypothesis that SES has a positive correlation with students' internet access and internet use. We assumed the students from higher SES levels have more internet access and use because they are better supported financially than students from lower SES levels.

The results of the Pearson correlations test gave a value of r=.068, N=1194, p=.019 for the correlation between students' SES level and internet access and a value of r= .139, N=1194, p=.000 for the correlation between students' SES level and internet use. These results show a positive correlation between them. This means that the higher students' socio-economic status, the greater their possibility internet access and use, and vice versa. Therefore, Hypothesis 5 is supported. Please refer to Appendix J (p. 245) Table 4.8.5. for the comprehensive result of the Pearson correlation between students' SES, internet access and use.

4.8.6. Both internet access and internet could explain variance of digital literacy.

H6: Better internet access **[X_2]** and more frequent internet use **[X_3]** go along with higher digital literacy **[X_4].**

We proposed the hypothesis that better internet access and more frequent internet use go along with digital literacy. We assumed that the availability of gadgets for accessing the internet, time spent accessing the internet, and frequency of internet use through "trial and error" would support students' digital literacy.

Examining the connection between variables, there was a positive correlation between internet access and digital literacy, as shown by the values r=.251, N=1194, p=.000. The availability of time and gadgets to access the internet was associated with

the development of digital skills, cognitive skills, and socio-emotional perspectives for digital technology. There was also a positive correlation between internet use and digital literacy, with the values r=.304, N=1194, p=.000. Frequency of internet use enables them to look for information and entertainment, as well as communicate with others, allowing students to learn many things. "Trial and error" is used by students to overcome the problems they face on the internet, allowing them to have more experiences in cyberspace.

Regression analysis was conducted to explore the interactions between internet access/internet use and digital literacy. Analysis showed that the value of R^2 was .122 ($p<.01$), meaning that internet access and use could explain variance of digital literacy. Although the value was only 12%, it was significant. As such, Hypothesis 6 was supported. Please refer to Appendix J (p. 245) Table 4.8.6. for the comprehensive result of the regression analysis between students' internet access, internet use and digital literacy.

4.8.7. Senior high school students are more confident with their digital literacy than junior high school students.

H7: Students from junior high schools **[X_{1c}]** have lower digital literacy **[X_4]** than students from senior high schools **[X_{1d}].**

In Hypothesis 7, we predicted a difference between the digital literacy of junior high school and senior high school students. We assumed that junior high school students' having less internet access than senior high school students resulted in them having inadequate experience with the internet. We used the number of junior high

school students (539) as a reference and randomly selected 539 (of 655) senior high school students using the SPSS 20 system, ensuring an equal sample of both groups. An independent sample t-test was conducted to compare the digital literacy of both groups.

Computations found a significant difference between junior high school students (M=52.58, SD=5.96) and senior high school students (M=55.34, SD=4.98), with the value N=1078, t (1042.97) =-8.27, p=0.000. These results indicated a difference, that senior high school students are more confident with their digital literacy than junior high school students. Please refer to Appendix J (p. 245) Table 4.8.7. for the comprehensive result of independent sample t-test between junior and senior high school's students on their digital literacy.

4.8.8. Both internet access and internet use could explain variance of privacy practices in SNSs.

H8: Better internet access **[X_2]** and frequent internet use **[X_3]** go along with better privacy practices on SNSs **[X_5].**

Hypothesis 8 predicted that internet access and internet use could support students' privacy practices on SNSs. We assumed that the availability of internet access and internet use would promote familiarity in SNS use. By exploring SNSs' menus and features, students could customize their privacy settings and select those they considered appropriate.

A Pearson product-moment correlation coefficient was computed to determine the connection between internet access and privacy practices. The results showed a positive correlation between internet access and privacy practices, with a value of

r=.075, N=1167, p=.005. A positive correlation was also found between internet use and privacy practices, with a value of r=.312, N=1167, p=.000. Ease of internet access and frequency of internet use was associated with familiarity with SNSs, as well as the ability to adjust privacy settings by "trial and error".

The results of regression analysis reinforced the connection between students internet access and internet use with their privacy practices. A value of R^2=.098 ($p<0.1$) meant that internet access and internet use could explain variance of students' privacy practices on SNSs. Despite this value being low, it supported Hypothesis 8. Please refer to Appendix J (p. 245) Table 4.8.8. for the comprehensive result of the regression analysis between students' internet access and use with privacy practices.

4.8.9. Digital literacy helps students remain careful in revealing information about themselves in SNSs.

H9: Better digital literacy **[X_4]** supports better privacy practices on SNSs **[X_5].**

Hypothesis 9 predicted that students' digital literacy would support better their SNSs privacy practices. We assumed that students' level of digital skill, digital cognition, and socio-emotional maturity would support better to adjust their privacy settings on SNSs.

Regression computation found a positive correlation between students' digital literacy and their privacy practices, with a value of r=.062, N=1164, p=.018. It was further found that digital literacy could explain variance of privacy practices with a value of R^2=.004 ($p<.05$). The higher the student's digital literacy, the better her/his privacy practices. A combination of hard and soft digital media skills was likely to

increase students' awareness of digital privacy. Despite the value being low, it does support Hypothesis 9. Please refer to Appendix J (p. 245) Table 4.8.9. for the comprehensive result of the regression analysis between students' digital literacy and privacy practices.

4.8.10. Students' privacy practices in SNSs enlarge likelihood to get cyberbullying experiences.

H10: The more privacy practices on SNSs **[X_5]** the bigger students get possibility cyberbullying experiences **[Y_6]**.

In Hypothesis 10, we proposed that the more privacy practices on SNSs the bigger students get possibility cyberbullying experiences. We assumed that students' self-disclosure and activities in SNS would enlarge likelihood to be exposed to cyberbullying.

A Pearson product-moment correlation coefficient's computation resulted in the value r=.134, N=1167, p=.000, indicating a positive correlation between students' privacy practices on SNSs and their cyberbullying experiences. Students' "opening and closing" of their personal identities could expose them to cyberbullying experiences. The more openly they disclosed information about themselves, the more likely they were to be exposed to cyberbullying experiences.

Regression analysis found that the value of R^2 was .018 ($p<.01$). Privacy practices could explain variance of students' cyberbullying experiences. Please refer to Appendix J (p. 245) Table 4.8.10. for the comprehensive result of the regression analysis between students' privacy practices on SNSs and cyberbullying experiences.

4.8.11. Digital literacy increased the proportion of cyberbullying experiences' variance compared with internet access and internet use.

H11: Digital literacy **[X_4]** explains more variance of cyberbullying experiences **[Y_6]** beyond internet access **[X_2],** and internet use **[X_3].**

We proposed that digital literacy explains more variance of cyberbullying experiences compare internet access and internet use. We assumed that technical skills, cognitive and socioemotional abilities could decrease students' exposure to cyberbullying when accessing and using the internet.

A computation of the Pearson product-moment correlation coefficient found some positive correlations between internet access, internet use, digital literacy, and cyberbullying experiences. However, one correlation was negative, namely that between digital literacy and cyberbullying experiences ($r=-.074$, $N=1194$, $p=.005$). This indicates that the higher students' digital literacy, the less common their cyberbullying experiences. Digital literacy thus likely reduced their exposure to cyberbullying.

Regression computation showed that the value of R^2 changing from .032 to .051 ($p<.01$). It means that the inclusion of digital literacy variable explained more additional variance of cyberbullying experiences variable. Increasing students' digital literacy will likely reduce their exposure to cyberbullying when they access and use the internet. These results support Hypothesis 11. Please refer to Appendix J (p. 245) Table 4.8.11. for the comprehensive result of the regression analysis between students' internet access, internet use, digital literacy and cyberbullying experiences.

4.8.12. Privacy practices increased the proportion of cyberbullying experiences' variance compared with internet access and internet use.

H12: Privacy practices **[X_5]** explains more variance of cyberbullying experiences **[Y_6]** beyond internet access **[X_2],** and internet use **[X_3].**

In Hypothesis 12, we predicted that privacy practices could explain more variance of cyberbullying experiences compared to internet access and internet use. We assumed that "trial and error" with SNS privacy settings could increase likelihood students to be exposed to cyberbullying experiences.

Computation of the Pearson product-moment correlation coefficient indicated some positive correlations between internet access, internet use, cyberbullying experiences, and privacy practices. Meanwhile, regression computation result showed the value of R^2 changing from .035 to .041 ($p<.01$). The inclusion of privacy practices variable explained more additional variance of cyberbullying experiences variable. "Open and closed" of self-disclosure and doing activities in SNSs could potentially expose students to cyberbullying when they access and use the internet. Thus, Hypothesis 12 is supported. Please refer to Appendix J (p. 245) Table 4.8.12. for the comprehensive result of the regression analysis between students' internet access, internet use, privacy practices and cyberbullying experiences.

4.8.13. Digital literacy and privacy practices in SNSs could explain simultaneously variance of cyberbullying experiences.

H13: Digital literacy **[X_4]** and privacy practices on SNSs **[X_5]** have correlations with cyberbullying experiences **[Y_6].**

We proposed the hypothesis that both digital literacy and privacy practices have correlations with students' cyberbullying experiences. We assume that critical views of information and "trial and error" approaches to privacy settings on SNSs may cause student to be exposed to cyberbullying.

Computation of the Pearson product-moment correlation coefficient indicated both positive and negative correlations between digital literacy, privacy practices, and cyberbullying experiences. The one negative correlation was found between digital literacy and cyberbullying experiences, with a value of $r=-.079$, $N=1167$, $p=.004$, indicating that the higher students' digital literacy the lower their cyberbullying experiences; conversely, the lower students' digital literacy the higher their cyberbullying experiences. Digital literacy, thus, likely reduces their exposure to cyberbullying.

Regression computation shows that digital literacy and privacy practices could explain simultaneously cyberbullying experiences variance, with the value of R^2 being .025 ($p<.01$). The processes of becoming digitally literate and "trial and error" with privacy practices may expose students to cyberbullying. The results, thus, support Hypothesis 13. Please refer to Appendix J (p. 245) Table 4.8.11. for the comprehensive result of the regression analysis between students' digital literacy, privacy practices and cyberbullying experiences.

4.8.14. Non-victims of cyberbullying have better digital literacy than victims of cyberbullying.

H14: There is a difference between victims of cyberbullying **[Y_{6a}]** and non-victims of cyberbullying **[Y_{6b}]** in their digital literacy **[X_4].**

Of the 1194 students that participated in this study, 579 (48.5%) admitted to having been the victim of cyberbullying at least once in the 12 months before the survey. We tried to determine whether there is difference in the digital literacy of victims and non-victims of cyberbullying. Through a random selection using the SPSS 20 system, we got 579 (of 615) non-victims of cyberbullying, ensuring an equal sample of both groups. We found that the two groups had different levels of digital literacy.

A significant difference was found in the digital literacy scores of victims of cyberbullying (M=53.67, SD=5.76) and non-victim of cyberbullying (M=54.35, SD=5.55), with the condition N=1158, t (1156) =-2.03, p=0.042. The results, thus, support Hypothesis 14. Please refer to Appendix J (p. 245) Table 4.8.14. for the comprehensive result of independent sample t-test between victim and non-victim of cyberbullying on their digital literacy.

4.8.15. Non-perpetrators of cyberbullying have better digital literacy than perpetrators of cyberbullying.

H15: There is a difference between perpetrators of cyberbullying **[Y_{6c}]** and non-perpetrators of cyberbullying **[Y_{6d}]** in their digital literacy **[X_4].**

About 478 (40%) of the 1194 student respondents indicated experience as the perpetrators of cyberbullying at least once in the 12 months before the survey. We tried

to determine whether students with experience as perpetrators of cyberbullying had different digital literacy levels than non-perpetrators of cyberbullying. Through a random selection using the SPSS 20 system, we got 478 (of 716) non-perpetrators of cyberbullying, ensuring an equal sample of both groups. We found that the two groups had different levels of digital literacy.

A significant difference was found in the digital literacy levels of perpetrators of cyberbullying (M=53.40, SD=5.71) and non-perpetrators of cyberbullying (M=54.37, SD=5.56), with the condition N=956, t (954) =-2.64, p=0.009. The results, thus, support Hypothesis 15. Please refer to Appendix J (p. 245) Table 4.8.15. for the comprehensive result of independent sample t-test between perpetrator and non-perpetrator of cyberbullying on their digital literacy.

From these results, it may be assumed that there is a potential for students to be exposed to or involved in cyberbullying when they access and use the internet. Therefore, digital literacy is an essential life-skill, one that should be mastered by adolescents. By gaining digital literacy, adolescents can better deal with problems on digital media.

4.8.16. Victims of cyberbullying have higher privacy practices on SNS than non-victims of cyberbullying.

H16: There is a difference between victims of cyberbullying **[Y_{6a}]** and non-victims of cyberbullying **[Y_{6b}]** in privacy practices **[X_5].**

Of the 1164 student respondents who actively use SNS accounts, 565 (47.3%) admitted to having been the victim of cyberbullying at least once in the 12 months

before the survey. Previous research has found that frequent use of the internet, especially SNSs, is positively correlated with engagement in cyberbullying experiences. We are interested in comparing the privacy practices of students with experience as victims of cyberbullying and non-victims of cyberbullying. Through a random selection using the SPSS 20 system, we got 565 (of 599) non-victims of cyberbullying, ensuring an equal sample of both groups. We found that the two groups had different privacy practices.

There is a significant difference in the scores of cyberbullying victims (M=29.45, SD=5.14) and non-victims (M=28.04, SD=6.17), with the condition N=1130, t (1095.961) =-4.23, p=0.000. Victims of cyberbullying have higher privacy practices on SNS than non-victims of cyberbullying. The results, thus, support Hypothesis 16. Please refer to Appendix J (p. 245) Table 4.8.16. for the comprehensive result of independent sample t-test between victim and non-victim of cyberbullying on their privacy practices on SNSs.

4.8.17. Perpetrators of cyberbullying have higher privacy practices on SNS than non-perpetrators of cyberbullying.

H17: There is a difference between perpetrators of cyberbullying **[Y_{6c}]** and non-perpetrators of cyberbullying **[Y_{6d}]** in their privacy practices **[X_5].**

About 470 (39.4%) of the 1,194 student respondents had experience as perpetrators of cyberbullying at least once in the 12 months before the survey. We attempted to determine whether there is difference in digital literacy between students with experience as perpetrators of cyberbullying and those without such experience.

Through a random selection using the SPSS 20 system, we got 470 (of 694) non-perpetrators of cyberbullying, ensuring an equal sample of both groups. We found that the two groups had different privacy practices.

There is a significant difference in the scores of perpetrators of cyberbullying (M=29.50, SD=5.25) and non-perpetrators of cyberbullying group (M=28.40, SD=5.68), with the condition N=940, t (938) =-3.08, p=0.002. The results, thus, support Hypothesis 17. Please refer to Appendix J (p. 245) Table 4.8.17. for the comprehensive result of independent sample t-test between perpetrator and non-perpetrator of cyberbullying on their privacy practices on SNSs.

These results affirm previous research that found that SNS activities could expose adolescents to cyberbullying, either as victims or perpetrators; indeed, the anonymity of cyberspace makes it possible for these roles to be interchangeable depending on time and opportunity. The ability to deal with problems of cyberbullying and breaking the chain of violence is very important for adolescents.

4.8.18. Junior high school students were more likely to be involved in cyberbullying than senior high school students.

H18: Students from junior high schools **[X_{1c}]** have more cyberbullying experiences **[X_5]** than students from senior high schools **[X_{1d}].**

In Hypothesis 18, we predicted a difference between junior and senior high school students' cyberbullying experiences. We assumed that junior high school students' inadequate experience with the internet could make them more easily exposed to cyberbullying. We used the number of junior high school students (539) as a reference

and randomly selected 539 senior high school students (from 655) using the SPSS 20 system, ensuring an equal sample of both groups. An independent sample t-test was conducted to compare the cyberbullying experiences of both groups.

The results found a significant difference between the cyberbullying experiences of junior high school students (M=28.18, SD=17.32) and senior high school students (M=22.07, SD=16.79), with the condition N=1078, t (1076) =5.88, p=0.000. These results suggest that there is a difference between the cyberbullying experiences of junior and senior high school students. The results, thus, support Hypothesis 18. Please refer to Appendix J (p. 245) Table 4.8.18. for the comprehensive result of independent sample t-test between junior and senior high school students on their cyberbullying experiences.

4.8.19. Social mediation could not explain more variance of cyberbullying experiences compared to internet access and internet use.

H19: Social mediation (parents, school, peers' role) **[X_6]** explains more variance of cyberbullying experiences **[Y_6]** beyond internet access **[X_2],** and internet use **[X_3].**

In Hypothesis 19, we predicted that social mediation could explain more variance of cyberbullying experiences beyond internet access and internet use. We assume parental monitoring, controlling and communicating of adolescents' media use could reduce likelihood of adolescents to get cyberbullying experiences during their internet access and internet use.

Computation of the Pearson product-moment correlation resulted in a positive correlation between internet access, internet use, cyberbullying experiences, and social mediation. The correlation between cyberbullying experiences and social mediation is not significant, with values of r=.032, N=1194, p=.132.

Meanwhile, the results of regression computation showed that social mediation could not explain more variance cyberbullying experiences compared to internet access and internet use. The result showed that the value of R^2 is constant at .032 (p>.01) before and after social mediation was entered. The inclusion of social mediation variable did not explain more additional variance of cyberbullying experiences variable. This leads to the dismissal of Hypothesis 19. Please refer to Appendix J (p. 245) Table 4.8.19. for the comprehensive result of the regression analysis between students' internet access, internet use, social mediation and cyberbullying experiences.

4.8.20. The significant intercorrelations between victims and perpetrators of bullying

H20: Experience as a victim of physical bullying **[Y_1],** experience as a victim of non-physical bullying **[Y_2],** and/or experience as a victim of cyberbullying **[Y_3]** have a positive correlation with experience as a perpetrator of physical bullying **[Y_4],** experience as a perpetrator of non-physical bullying **[Y_5],** and/or experience as a perpetrator of cyberbullying **[Y_6]**.

In Hypothesis 20, we predicted a correlation between students' involvement as the victims and perpetrators of bullying. Bullying behavior should always be examined as "cause and effect" behavior, not as an independent action. A victim who is helpless in

dealing with physical bullying (because she/he has no physical power) could fight back through non-physical bullying (by insulting, threatening, or defaming the perpetrator). However, when this cannot be done in face-to-face situations (because of fear), the anonymity of cyberspace offers victims of physical bullying the opportunity to fight back through cyberbullying. This requires no physical power, only making a pseudonym or fake identity.

Computation of the Pearson product-moment correlation indicated some positive correlations between experience as a victim of physical bullying, experience as a victim of non-physical bullying, experience as a victim of cyberbullying, experience as a perpetrator of physical bullying, experience as a perpetrator of non-physical bullying, and experience as a perpetrator of cyberbullying, with a value of $.309 \leq r \leq .581$, N=1194, p=.000. In the following table, we show the complete intercorrelations.

Table 4.55

Correlation between Bullying Victimhood and Perpetration

		1	2	3	4	5	6
1	Victim of physical bullying						
2	Victim of non-physical bullying	.471**					
3	Victim of cyberbullying	.409**	.509**				
4	Perpetrator of physical bullying	.581**	.392**	.338**			
5	Perpetrator of non-physical bull.	.388**	.497**	.380**	.534**		
6	Perpetrator of cyberbullying	.309**	.338**	.472**	.413**	.558**	

*p<.01

CHAPTER 5

Discussion

In this chapter, we elaborate our findings and statistical analysis results from chapter four and discuss them within the theoretical framework we have developed in chapter two. Those are presented in the “summary of the main findings” sub-chapter. Then, it is followed by the “scientific contributions” which presents specific findings of this study compared to previous studies. “Limitation and future research recommendation” is sub-chapter where we describe some weaknesses of this study, which should be improved for next research. “Policy implications”, is the last sub-chapter which describes practical recommendations for improving internet safer policy in Indonesia.

5.1. Summary of the main findings

The availability of digital devices is a prerequisite for students to access the internet. Accessing the internet allows students to explore the information available on it. For students in Yogyakarta, Indonesia, who were the main respondents in this study, accessing the internet is an integral part of their daily activities. By saving some of their pocket money, they can purchase data packages or other facilities for accessing the internet through their smartphones or tablets. They do not hesitate to find and use free Wi-Fi (e.g. at the city library, mall, cafe, city park, etc.) for more intensive access to the internet. They also use school computer laboratories and Wi-Fi networks at certain times to access the internet. Of the 13 types of internet use about which students were asked,

mostly they used the internet as a source of information, as a source of entertainment, and as a means of communicating with others.

In terms of how they access the internet, a significant difference was found between male and female students. Male students do not hesitate to access the internet with others, as reflected in their preferred access locations: living rooms, internet cafés, friends' homes, and relatives' homes. Meanwhile, female students prefer using bedrooms and public spaces with Wi-Fi. Likewise, even though smartphones are preferred by all student respondents, male students also use desktop computers and game consoles to access the internet. Many accessed the internet for the first time in early ages; as found by previous studies (Durndell and Haag, 2002; Jackson et al., 2007; Calvert et al., 2005; Gross, 2004; Livingstone and Helsper, 2009), on average male students accessed the internet for the first time earlier than female students.

Female students are more likely to use the internet every day than their male peers, as seen in the fact that about one third of female students used the internet for at least two hours every day on ordinary school days, while less than one third of male students showed similar tendencies. Furthermore, it was found that female students use the internet mostly for schoolwork, reading/watching online news, using instant messaging, visiting social network sites, and spending time in virtual worlds. Meanwhile, male students use the internet mostly for watching video clips, downloading films or music, reading/watching online news, visiting chat rooms, using instant messaging, playing online games, and visiting social network sites. However, even though female students are more active than their male peers in using the internet, they are more likely to avoid risky online activities, including sharing personal information with someone they have never met face to face, adding unknown people whom they have never met as "friends"

on their SNS accounts, pretending to be "someone else" on the internet, sharing photographs or videos with someone they have never met, and viewing pornographic image/websites (unintentionally or intentionally). In general, male students have riskier internet activities than their female peers.

Pearson's correlation test proved that socio-economic status (SES) is positively correlated with internet access and internet use. The higher the SES level, the higher the possibility that students will access and use the internet (Facer and Furlong, 2001; Zillien and Hargittai, 2009). Most student participants in this study had middle or high SES levels. Crosstabulation analysis found that only 1% of students with low SES levels accessed the internet for more than 4 hours on the weekend or holidays; conversely, 50% of students with middle and high SES levels accessed internet more than 4 hours on the weekend or holidays. The mean value of students' first-time access internet was 10.09 years old. However, students with middle and high SES levels first accessed the internet at an earlier age.

Regardless of their SES level, students' internet use is high. Unlike Topcu et al. (2008), who found that students from private schools (with higher SES levels) had a higher level of internet use than students from public schools (with lower SES levels), this study found no difference in private and public-school students' internet access. It did, however, find a difference in their internet activities. In terms of devices used when accessing the internet, students from both public and private schools preferred using smartphones and laptop computers. Meanwhile, in terms of internet access location, public school students were more likely to actively seek public places with free Wi-Fi access than their peers in private schools. The lack of difference in both groups' internet access could have been caused by them having similar SES levels; no significant

difference was found in the SES levels of the public and private school students who participated in this study. Economically, students from both types of schools could afford the gadgets and data plans/quota needed to access the internet.

On average, public school students were more likely to actively use the internet in their everyday lives for schoolwork, reading/watching news, using instant messaging, visiting SNSs, and spending time in virtual worlds. Meanwhile, private school students were more likely to use the internet for watching video clips, downloading films/music, sending and receiving email, visiting chat rooms, using instant messaging, playing online games, and SNSs. In terms of risky internet activities, no differences were found between the groups; students from both public and private schools had similar awareness levels.

Students may use so much time on the internet, collecting information, searching for entertainment, and communicating with others since it is fun for them. Although students may be exposed to hoaxes, pornographic websites, or involved in communications with strangers, it is through this "trial and error" approach that digital literacy is learned. This study found that internet access and internet use both could increase digital literacy. Digital literacy is an ability that should be put into practice. It is not just a technical ability, but also involves socioemotional capabilities, including comprehension of social ethics and emotional maturity (Ng, 2012)—both of which are generated through social and cultural relationships and interactions within the context of a specific society in a specific period of time. This strengthened previous study by Livingstone et al. (2011) that the opportunity to frequently access the internet, even though it makes students vulnerable, could improve their digital literacy.

It was found that senior high school students are more confident in their technical ICT skills than junior high school students. This can apparently be attributed to these

students having more time on the internet. It is likewise not surprising that cognitive and socioemotional skills are better than their juniors. For example, on average, senior high school students are more confident that their knowledge about the internet is better than that of their parents. Likewise, their answers regarding netiquette—such as the copying of digital information—were firmer than those of their juniors.

Furthermore, digital literacy was found to have a negative correlation with cyberbullying experiences. Junior high school students were more likely to be involved in cyberbullying than their seniors. It was also found that, on average, they were more likely to experience other forms of bullying (i.e. physical and non-physical), both as victims and perpetrators, that senior high school students. When involved in cyberbullying, more than half of the junior high school students told others about their problems. This distinguishes them from senior high school students, more than half of whom did not tell anybody about their problems.

Similar to studies conducted by Guan and Subrahmanyam (2009) as well as Brussee and Hekman (2009), communicating with others by instant messaging (e.g. WhatsApp, Line, BBM) and SNSs are the two most frequent internet activities of students—barring the completion of school assignments. These internet activities provide students with a means to communicate and remain connected to others. Communicating with others through SNSs enables students to modify their identities and profiles. Showing a close-up photo, with their complete name and correct date of birth, are three common aspects of identity displayed on students' SNS profiles. Students often post up-to-date photographs and activities, or simply comment on others' posts. The regression computation found that students' internet access and use simultaneously could explain variance of students’ privacy practices on SNS.

Mobile internet and SNS applications are two factors that drive students to impulsively use SNSs. Regularly posting content on SNSs allows students to become aware of their accounts' privacy settings, as well as whether or not there is something threatening. They can thus modify privacy settings in accordance with their situation Those strengthened previous studies by Lewis et al. (2008), Boyd and Hargittai (2010), and Litt (2013). However, regularly posting content on SNSs – up-dated profile, commented any information, up-dated status - also increased the possibility that students were exposed to and involved in cyberbullying, as impulsive SNS behavior allows students to always respond to comments or other posts they found on SNSs. Nonetheless, it is through internet access and internet use that students learn.

Apparently, students' digital literacy increases their awareness of privacy practices on SNSs. Students' digital skills, digital cognition, and socio-emotional comprehension may help them remain careful in revealing information about themselves. This was confirmed in the frequency of "agree" and "strongly agree" responses to the statements *"I give much consideration if someone I know on SNSs asks to meet", "I tend to be careful when posting comments on SNSs"*, and *"I always check the profile of someone who proposes becoming my "friend" on SNSs"*. Almost 75% of students indicated that they could change the privacy settings on their SNS profiles. These findings indicate a basic level of digital literacy.

Nevertheless, awareness of privacy practices cannot make students immune from cyberbullying, as cyberbullies are generally skilled at using the internet (Ybarra and Mitchell, 2004; Olweus and Limber, 2018). Nonetheless, this study found that awareness of SNS privacy practices could explain students' cyberbullying experiences. Individual policies on balancing between privacy and self-disclosure were more likely to make

students exposed to cyberbullying experiences, either as victims or as perpetrators. SNSs allow students to have fun expressing their emotions by commenting, uploading memes, and sharing information with people they like or hate. All of these activities may potentially receive responses from others in their networks.

Furthermore, 2 in 10 cyberbullying victims were targeted through SNSs, while almost 3 in 10 were targeted through instant messaging (e.g. WhatsApp, Line, BBM, etc.). Similarly, 1 in 10 cyberbullying perpetrators used SNSs to bully others, and 2 in 10 used instant messaging to do so. SNS and instant messaging applications, which can be installed on every brand of smartphone and other portable digital device, are frequent media vehicles for bullying others. This confirms a previous study by Livingstone, Haddon, Görzig, and Olafsson's (2011).

Furthermore, analysis of the connection between internet access, internet use, and cyberbullying experiences proved that digital literacy could explain more additional variance of cyberbullying experiences. Students with certain levels of technical and operational skills, critical thinking ability, and understanding of netiquette could help themselves avoid online bullying, or—if victimized—avoid exacting revenge on others. Accordingly, the independent sample t-test analysis found a significant difference in the mean digital literacy value of cyberbullying victims and non-victims, as well as perpetrators and non-perpetrators. These findings strengthen the argument that digital literacy could mitigate the effects of cyberbullying.

Being bullied online makes students feel angry, worried, and sad. They try to cope with problems by telling their closest friends, mothers, or siblings. Similar to Li (2007), who previously found that cyberbullying victims or bystanders prefer telling friends than telling adults, as they are uncertain that adults can stop cyberbullying. Other coping

strategies include deleting messages from perpetrators and blocking perpetrators so that they cannot send any more harassing messages. Students may further change their privacy/contact settings so that perpetrators cannot contact them anymore.

Furthermore, it was found that students' digital literacy and privacy practices could explain simultaneously variance of cyberbullying experiences. Students' technical and operational skills, critical thinking abilities, and understanding of netiquette may minimize their exposure to cyberbullying. Meanwhile, open and closed self-disclosure will likely increase their exposure to cyberbullying, either as victims or as perpetrators. Digital literacy and privacy practices are part of a learning process that help students learn how to face problems in cyberspace. "Trial and error" allows students to learn how to deal with challenges on the internet.

However, it was found that violent behavior in cyberspace is closely interwoven with other forms of violent experiences and behaviors. It is related to students' other violent experiences in the "real world". This research found that students' bullying experiences—either as victims or as perpetrators, either in face-to-face or online interactions, either physical or non-physical— are all intercorrelated. The "roles" of victim and perpetrator are interchangeable (Li, 2007; Holt et al., 2014). When bullying victims have the opportunity and media to fight against perpetrators of violence, they take the chance. Internet use, through SNS and instant messaging applications, makes it possible. Anonymity, provided by the privacy of cyberspace, enables people to use fake identities to bully others.

Furthermore, social mediation could not explain more additional variance of cyberbullying experiences than internet access and internet use. About one-third of students think that their parents do not know much about what they do on the internet,

and hope that their parents would know a little more about what they do on the internet. Generally, students think that their parents apply moderate parental mediation and are lax in supervising their internet use, even though almost half of them think that their parents restrict their internet use "a lot". Nevertheless, students admit that their parents help them "a lot" in their internet use.

Peers play a larger role when students face internet problems than students' parents or teachers. When coping with cyberbullying, students prefer telling their close friends than their parents or teachers. As previous found by Nikken and de Graff (2013), students may be prohibited from accessing the internet if they talk about their experiences as victims of cyberbullying. Telling a friend about their internet problems, thus, may be more convenient than telling a parent, who may not solve their problems.

In looking for advice and support for safer internet use, students, parents, and teachers rely heavily on traditional media (e.g. television, magazine, newspaper), friends and family members/relatives. Television is still the main medium for family information in Indonesia, and almost every household has at least one unit. Meanwhile, although many magazines and newspapers have taken digital forms, people still subscribe for physical editions or purchase single issues at kiosks. Strong social relations, both within families and between neighbors, help solve everyday problems—including those with internet use. We further found interdependency between students, parents, and teachers in looking for advice and support for safe internet use. Although students are more independent than others, relying heavily on other media, they may heed their parents' and teachers' suggestions for safer internet use. Meanwhile parents and teachers rely on each other for advice and support regarding safe internet use. They also receive information for safer internet use from children/students.

5.2. Scientific contribution

This study was inspired by the findings of the EU Kids Online 2009–2011 survey. Considering the massive development of ICT infrastructure in Indonesia, we thought that a similar study would be useful to investigate Indonesian adolescents' and parents' internet experiences and practices, both safe and risky. The findings of this study cannot be compared directly to all of the findings of the EU Kids Online survey, as in some ways we have (responsibly) simplified its model and methodology to suit Indonesia's large and scattered adolescent population. Nonetheless, initial findings in Indonesia—a country with a large number of internet users—could enrich and somehow be comparable with the findings of the EU Kids Online survey.

Student participants in this study have the autonomy to use the internet through mobile devices they receive from their parents; however, they generally buy internet quota for themselves by using their pocket money. They may also access the internet through free Wi-Fi services, which are available in schools or in public spaces.

In this study, we have explored Indonesian adolescents as subjects who access and use the internet in their everyday lives, which involves their personalities as Asians. Elaborating Triandis's (1989, p. 506) "three dimensions of cultural variation", Indonesia has a collectivist, loose, and relatively complex culture. Indonesian society is known as a collective society that emphasizes social harmony, good relationships with relatives and neighbors, as well as empathy and tolerance (Koentjaraningrat,1984, p. 111; Hariyono, 1993, p. 70; Magnis-Suseno, 1993, p. 173). Such personal ties in Indonesian society, which remain strong, make the application of privacy boundaries more flexible. Indeed,

this flexibility in privacy boundaries are practiced by adolescents on SNSs too. They do not hesitate to update their profile on SNSs with the latest personal photos, full names, the correct date of births, hometown and email address. They do not awkward to comment and share anything fun for them on SNSs. Their appearance on SNSs is their existence.

Previous studies by Hogben (2007), O'Dea and Campbell (2012), and Kwan and Skronic (2012) suggested increasing SNS privacy settings to prevent cyberbullying. In this dissertation, we add that adolescents' privacy practices on SNSs might increase their cyberbullying experiences. We found that SNS activities (e.g. updating profile frequently, commenting anything for fun, etc.) and self-disclosure (e.g. uploading personal photos and other personal identities) may potentially expose them to cyberbullying. SNSs are not personal "diaries"—which enable users to share profiles, comments, expressions, etc.—but public media. As such, all SNS activities may attract others' comments, judgements, criticism, and even attacks. Aside from increasing privacy settings, reducing the frequency of posting, commenting, and sharing—i.e. not being a reactive SNS user—could also minimize students' cyberbullying experiences.

Another contribution of this dissertation is its proof that digital literacy can explain more variance of cyberbullying experiences beyond internet access and internet use. We found that adolescent participants in this study have no problem in technical skills, as part of digital literacy. But they should improve themselves more in cognitive skills and socioemotional aspects. A previous study by Ybarra and Mitchell (2004) found that over half of cyberbullies surveyed claimed to be expert internet users. However, such internet expertise tended to be mere technical skills. In reality, digital literacy does not only concern technical skills, but also the critical thinking to evaluate and create information, the ability to responsibly use the internet for communicating, socializing, and learning,

the understanding of netiquette, the ability to ensure individual safety and protect privacy, and the recognition of when one is being threatened and the knowledge for coping with such problems. Although digital literacy is complicated, it could help minimize students' cyberbullying experiences when they access and use the internet.

Zhauo et al. (2013), Kwan and Skoric (2012), Park et al. (2014), and O'Neill and Dinh (2015) have all suggested the importance of social mediation in mitigating cyberbullying experiences. In this dissertation, we have found that social mediation does not really help minimize adolescents' cyberbullying experiences when they access and use the internet. Further exploring some dimensions within the social mediation variable, we found that two thirds of parent and teacher participants had not noticed or become aware of students being disturbed online in the twelve months before the study. Similarly, half of students who became victims of cyberbullying preferred telling their friends about their problems rather than their parents or teachers. Furthermore, they trusted information on safe internet use collected from traditional and new media over information from other sources. Adolescents tend to identify themselves with their peer groups rather than the adults around them.

5.3. Limitations and direction for future research

This study has several limitations that could be developed for further research. The first limitation is related to the conceptual operationalisation of internet access and privacy practices. Both concepts were not developed well enough to build a consistent scale. This then caused these variables to be less reliable and weakened their correlations with other variables.

The second limitation in this study is related to the application of self-efficacy to measure digital literacy. Self-efficacy refers to individuals' personal assessments of their abilities to solve problems within certain situations. This is debatable, as digital literacy integrates technical skills, cognitive skills, and netiquette comprehension. The skill and comprehension dimensions can be proven by demonstrating "how" problems can be solved. Therefore, we recommended combining self-efficacy with cases of problem-solving or an experimental method to strengthen the digital literacy findings of future research.

The third limitation is the use of convenience sampling during the pre-test as well as the main study. We used convenient sampling because of the large and scattered population of this study. Therefore, generalization and representation cannot be taken from this study. Supposing adequate resources and time, a multi-stage random sampling approach applied within urban and sub-urban Indonesia would create a more representative map of adolescent internet users in Indonesia.

The fourth limitation is the method through which data was collected from parents. This study collected information on parental mediation using a self-report questionnaire that was distributed through students. Parent questionnaires, each appended with a cover letter, were sent home with students. Parents were asked to fill these questionnaires at home and return them to the school coordinator within a week. However, many parent questionnaires were not returned. At the end of the collection period, only 835 completed questionnaires were collected from 1175 questionnaires distributed. Of these, only 536 could be processed as data. When these 536 parent questionnaires were paired with student questionnaires through matching codes, only 255 pairs could be identified. As such, only 255 parent–student pairs were used to explore the

parental mediation variable. The minimal availability of data, thus, affected the validity of the findings. Accordingly, we recommend that parents should be recruited by meeting them directly for face-to-face interviews.

The fifth limitation was the sub-optimal exploration of cultural values in the questionnaire, as a result of which cultural problems were not optimally identified, especially within the context of the privacy practices and cyberbullying experiences variables. Initially, we identified the possibility of cultural problems at the root of cyberbullying in Indonesia, including different points of view sometimes being perceived as divergent in communal society, as well as asymmetric relationships and power imbalances between youths/elders and men/women. Therefore, we recommend that cultural values be considered saliently in future research.

5.4. Policy implications

5.4.1. For parents

Accessing the internet "when on the way somewhere/to something" (68.3%) using a mobile device was the most common "place" for students to access the internet, followed by in the bedroom (68.0%) and at school (53.9%). Similarly, smartphones (90.6%) and laptop computers (74.1%) were the two digital devices most commonly used to access the internet. As such, we may postulate that parents give their children the authority to use ICT to access the internet with minimal supervision.

Parents should be aware of the potential risks of their children's internet activities. Although this dissertation has found that students tend to have limited risky internet activities, they are still exposed to pornography or add people as their "friends"/contacts

despite never having met face-to-face. Students should be taught about risky activities using a dialogical approach that respects their dignity, rather than a restrictive power approach (i.e. as seen when Indonesian parents simply force their children to obey them). Since parents rely heavily on television and newspapers/magazines for information on internet safety, they should also be diligent and critical in determining what information is credible. Parents should also set themselves as role models for their children in safe internet use.

Though most students access the internet at home, almost two-thirds (61.9%) of parents did not notice or recognize their children being bullied online; meanwhile, almost half (48.5%) of students admitted to having been the victim of cyberbullying in the 12 months before the survey. More than half of students (55.8%) felt more comfortable telling their friends about their cyberbullying experiences; however, mothers remained trusted (28.8%). Parents, thus, may be an important source of social support for children. Since bullying may occur at school, parents should develop dialog with their children's schools to solve their children's cyberbullying problems. Bullying at school has an obvious overlap with cyberbullying. Meanwhile, in cyberbullying, the roles of victim and perpetrator are interchangeable, depending on the opportunities available. The findings show that at least 40% of students have experience as perpetrators of cyberbullying.

Meanwhile, students admitted to have become the targets of bullying at home. Home should be the most comfortable and safest space for children, not a locus of bullying. As such, parents should accentuate dialog and respect children's rights by giving them an understanding of proportional rights and obligations, punishments and rewards; this can encourage children to take responsibility for their own behavior and not hurt others.

5.4.2. For schools

This dissertation has found that students frequently access and use the internet as part of their schools' learning process. About 58.3% of student respondents indicated that their schools provide Wi-Fi that can be accessed by students without any restrictions; another 31.1% said that their schools provide Wi-Fi that can be accessed by students with restrictions. This was confirmed by teacher respondents, 48.1% of whom stated that their schools provide Wi-Fi to students with no restrictions and 37.7% of whom stated that their schools provide Wi-Fi to students with some restrictions. This indicates that schools give their students the chance to access and use the internet in the school environment. Accordingly, 82.9% of teacher respondents indicated that students are allowed to use their smartphones with some restrictions at school. Similarly, school is the third favorite place for students to access the internet (53.9%), after "when on the way somewhere/to something" and their bedroom.

Schools are considered sources of information on safe internet use by both parents (45.7%) and students (27.4%). In Indonesian schools, information and communication technology (labeled in Indonesian *Teknologi Informasi dan Komunikasi* / TIK) is taught to students between grades seven and ten. Observations indicated that the materials taught by teachers are predominantly technical, with the objective of simply equipping students with knowledge to solve technical problems in (for example) word-, number-, picture-, and video-processing using the appropriate software, as well as introducing them to Local Area Networks (LAN). Schools should proactively introduce students to digital literacy, rather than focus on teaching mere technical expertise. We recommended that the Indonesian government include digital literacy in its future ICT curricula.

This dissertation has found that 1 in 10 students had been the victim of physical bullying in school, and 3 in 10 had experienced non-physical bullying in the 12 months before the study was conducted. Similarly, 5 in 10 students had physically bullied their schoolmates and 6 in 10 students had non-physically bullied their schoolmates in the 12 months before the study was conducted. Many previous studies have found that the roles of bullying victim and perpetrator are interchangeable; this study has made similar findings, showing that 4 in 10 students have cyberbullied their schoolmates. Should a victim of bullying not have the chance to fight back face-to-face, they may use cybermedia to target their bullies.

Youths and adults having different levels of power between is a cultural norm in Indonesia. Young people are taught that they must always respect their elders, and this is reinforced from generation to generation. An excessive desire for respect, however, perpetuates a "cycle of violence". Teachers want to be respected by students, and senior students want to be respected by their juniors. Although the task is daunting, we recommend the creation of fair, respectful, and responsible relations between teachers, parents, and students. This should be socialized gradually and continually.

5.4.3. For students

As found by this study, students' internet use may be classified as heavy. More than half of student respondents (56.1%) indicated that they use the internet "every day or almost every day", and more than one-thirds use the internet "several times each day". Meanwhile, about 22.6% of student respondents admitted to spending more than 4 hours using the internet on normal schooldays; this number more than doubles (to 52.2%) on

weekends. Lengthy school holidays, in Indonesia lasting from four to five weeks, could increase students' internet use to excessive levels. We found that 2 in 10 students are bullied through SNS and instant messaging applications, while 2 in 10 and 1 in 10 students had bullied others through instant messaging and SNS applications (respectively). As such, we recommend that students not be reactive or impulsive in using these media.

It is crucial to develop adolescents' responsibility for their own online behavior, as well as an awareness that behaving well online is as good as behaving well offline. Online life is not separate from offline (real) life; they should respect others. Generally, students have basic digital skills. However, their critical thinking and social sensitivity in producing positive online content still requires improvement. It is important for them to understand that SNSs are not personal "diaries", but public media, and that publishing personal details and information on such sites are dangerous to their personal privacy and safety.

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Appendix A

Abstract

Cyberbullying has increasingly become the topic of online and offline media coverage in Indonesia in the last 10 years. Broadly defined as bullying done through electronic devices such as mobile/smartphones or the internet, cyberbullying is often considered a consequence of increased internet use. Better development of telecommunication infrastructure, affordable telecommunication costs and competitive smartphone prices have enabled Indonesians to more easily access the internet at any time and in any place. Visiting social network sites (SNSs) is the most favorite activities of Indonesian in internet. Installing SNS applications to their smartphones tempts adolescents to be more active and impulsive in doing SNSs activities. Updating their profiles, writing statuses, sharing photographs or videos, sharing their actual locations, and replying to comments from others—all are done spontaneously, even though not all of their SNSs "friends" may respond favorably to their posts. There is always the potential for negative responses, which in turn may beget negative responses, and so on.

The present study aims to explore adolescents' cyberbullying experiences: through which media are they cyberbullied, how do they feel, how do they cope with cyberbullying, do they fight back. Given the central role of internet use, we also ask them about how they access and use the internet, as well as about their activities. Specifically, we also investigate their digital literacy, including their digital skills using the internet and gadgets, their critical thinking, and their socioemotional responses to problematic internet interactions. We also ask them how they use and disclose themselves on SNSs, and investigate the interactions between the variables of cyberbullying experiences, digital literacy, and privacy practices.

About 1194 students from junior and senior high school participated in this study. They were between 11-20 years old, 65.5% female and 34.5% male. It was found that both internet access and internet could explain variance of digital literacy and privacy practices on SNSs. The opportunity to frequently access the internet, even though it makes them vulnerable, could improve their digital literacy. Students’ privacy practices on SNSs enlarge likelihood to get cyberbullying experiences. Individual policies on "open and

closed" self-disclosure were more likely to make students exposed to cyberbullying experiences, either as victims or as perpetrators. Fortunately, digital literacy could mitigate the effects of cyberbullying. Students with certain levels of technical and operational skills, critical thinking ability, and understanding of netiquette could help themselves avoid online bullying, or—if victimized—avoid exacting revenge on others.

Social mediation could not explain more variance of cyberbullying experiences compared to internet access and internet use. Generally, students thought that their parents applied moderate parental mediation and were lax in supervising their internet use, even though almost half thought that their parents restricted their internet use "a lot". Peers played a larger role when students faced internet problems than students' parents or teachers. When coping with cyberbullying, students prefer telling their close friends than their parents or teachers. Students may be prohibited from accessing the internet if they talk about their experiences as victims of cyberbullying. Telling a friend about their internet problems, thus, may be more convenient than telling a parent, who may not solve their problems.

Abstract

Cybermobbing ist in den letzten 10 Jahren in Indonesien zunehmend Thema von online und offline Medienberichterstattung. Cybermobbing wird im Allgemeinen als Mobbing bezeichnet, das über elektronische Geräte wie Mobiltelefone oder das Internet getätigt wird. Daher wird Cybermobbing häufig als Folge von zunehmender Internetnutzung betrachtet. Durch besser entwickelte Telekommunikationsinfrastruktur, erschwingliche Telekommunikationskosten und fallende Smartphone-Preise ist es Indonesiern und Indonesierinnen mehr und mehr möglich, jederzeit und überall einfacher auf das Internet zuzugreifen. Der Besuch von Social Network Sites (SNSs) ist die beliebteste Aktivität Indonesiens im Internet. Durch die Installation von SNS-Anwendungen auf ihren Smartphones sind Jugendliche leicht versucht, aktiver und impulsiver bei SNS-Aktivitäten zu sein. Das Aktualisieren ihrer Profile, das Schreiben von Statusmeldungen, das Teilen von Fotos oder Videos, oder ihrer tatsächlichen Standorte und das Beantworten von Kommentaren anderer Personen erfolgen allesamt spontan, auch wenn möglicherweise nicht alle ihrer SNS-"Freunde" positiv auf ihre Beiträge reagieren. Es gibt stets ein Potenzial für negative Antworten, was wiederum negative Antworten hervorrufen kann, und so weiter.

Ziel der vorliegenden Studie ist, Cybermobbing-Erfahrungen von Jugendlichen zu verstehen: Durch welche Medien findet Cybermobbing statt, wie fühlen die Jugendlichen sich, wie gehen sie mit Cybermobbing um, kämpfen sie zurück? Angesichts der zentralen Rolle von Internetnutzung wird auch gefragt, wie sie auf das Internet zugreifen und es nutzen, und für welche Aktivitäten. Insbesondere werden auch ihre digitalen Kompetenzen untersucht, ihre digitalen Fähigkeiten im Internets und mit Gadgets, ihr kritisches Denkens und ihre sozioemotionalen Reaktionen auf problematische Internet-Interaktionen. Es wird auch gefragt, wie sie sich in SNSs engagieren und sich privat offenlegen, und untersuchen die Wechselwirkungen zwischen den Variablen Cybermobbing-Erfahrungen, digitale Kompetenz und Datenschutzpraktiken.

An dieser Studie haben etwa 1194 Schülern (34.5%) and Schülerinnen (65.5%) der Mittel- und Oberstufe teilgenommen. Sie waren zwischen 11 und 20 Jahren alt. Die Ergebnisse der Studie zeigen, dass der Internetzugang und die Internetnutzung könnten

die Unterschiede zwischen der digitalen Kompetenz und den Datenschutzpraktiken von SNS erklären. Die Möglichkeit, häufig auf das Internet zuzugreifen, auch wenn es die Nutzer und Nutzerinnen verwundbar macht, kann ihre digitale Kompetenz verbessern. Die Datenschutzpraktiken der Schüler in SNS erhöhen die Wahrscheinlichkeit, Cybermobbing-Erfahrungen zu bekommen. Einzelne Entscheidungen zur "offenen und geschlossenen" Selbstpreisgabe führten dazu, dass Studenten Cybermobbing-Erfahrungen ausgesetzt wurden, entweder als Opfer oder als Täter. Glücklicherweise könnte die digitale Kompetenz die Auswirkungen von Cybermobbing mildern. Schüler und Schülerinnen mit bestimmten technischen Fähigkeiten, kritischen Denkfähigkeiten und Verständnis von Netiquette konnten sich selbst helfen, Online-Mobbing zu vermeiden oder - falls sie Opfer sind - Rache an anderen zu unterlassen.

Soziale Mediation könnte nicht mehr Unterschiede zwischen Cybermobbing-Erfahrungen im Vergleich zu Internetzugang und Internetnutzung erklären. Im Allgemeinen waren die Schüler und Schülerinnen der Meinung, dass ihre Eltern nur wenig elterliche Vermittlung durchführten und bei der Überwachung ihrer Internetnutzung lax waren, obwohl fast die Hälfte der Meinung war, dass ihre Eltern ihre Internetnutzung "stark" einschränkten. Peers spielten bei Internet-Problemen eine größere Rolle als Eltern oder Lehrer und Lehrerinnen der Schüler und Schülerinnen. Wenn Sie mit Cybermobbing versuchen zurechtzukommen, erzählen die Schüler und Schülerinnen lieber ihren engen Freunden als ihren Eltern oder Lehrern. Den Schülern und Schülerinnen kann der Zugang zum Internet untersagt werden, wenn sie über ihre Erfahrungen als Opfer von Cybermobbing sprechen. Einem Freund von seinen Internetproblemen zu erzählen, kann daher einfacher sein als einem Elternteil, der die Probleme möglicherweise nicht löst.

Appendix B

Some parts of this dissertation have been published

- *"I know what should do in SNS": Indonesian Youths' Privacy Practices in Social Networks Sites and Their Digital Literacy* (paper presentation) in **the European Communication Research and Education Association (ECREA) Conference** in Lugano Switzerland (2018)
- *"Indonesian Youths' Privacy Practice in Social Networks Sites (SNS) and Their Bullying Experiences in Cyberspace"* (paper presentation) on **the 25th Asian Media and Information and Communication Centre (AMIC) Annual Conference** in Manila, Philippines (2017)
- *"Indonesian Youths' Privacy Practices in Social Network Sites (SNS) and Their Digital Literacy"* (poster presentation) - the Media and Information Literacy Doctoral Summer School in **Universitat Autònoma de Barcelona (UAB)** – Cataluña, Spain (2017)

Appendix C
Unipark online questionnaire's record

Field report		
The displayed data refer to the field period between 2016-04-18 and 2016-09-12 - Activated 148 days ago		
	Total count	Percent
Total sample (Gross 1)	1548	100,00%
Adjusted total sample (Gross 2)	1548	100,00%
Net participation	1400	90,44%
Response rate		90,44%
Completion rate		78,49%
Statistical characteristics		
Mean processing time (arithm. mean)	0h 34m 29.46s	
Mean processing time (Median)	0h 31m 8s	
Time of day with most accesses	Hour 5 Count 305	
Average number of participants per day	32.25	
Average number of participants per week	119.08	
Page with most drop-outs	Page: Welcome Count 152	

Detailed field report
Open all sectionsClose all sections

Total sample (Gross 1)		
	Total count	Percent
Total	1548	100,00%
Rejected (quota full) (36)	0	0,00%
Screened out (37)	0	0,00%
Drop-outs neutral to the sample	0	0,00%

Adjusted total sample (Gross 2)		
	Total count	Percent
Total	1548	100,00%
Active (12)	0	0,00%
Not yet started (20)	148	9,56%
Drop-outs relevant to the sample (12, 20)	148	9,56%

Net participation		
	Total count	Percent
Total	1400	100,00%
Completed (31, 32)	1215	86,79%
Currently responding (21, 23)	0	0,00%
Suspended (22)	185	13,21%

Access by time of day		
	Total	completed
1:00	0.13% (2)	0.00% (0)
2:00	5.04% (78)	5.93% (72)
3:00	17.96% (278)	11.19% (136)
4:00	18.80% (291)	22.14% (269)
5:00	19.70% (305)	23.05% (280)
6:00	5.62% (87)	6.01% (73)
7:00	9.37% (145)	8.97% (109)

8:00	7.56% (117)	6.34% (77)
9:00	8.07% (125)	9.38% (114)
10:00	3.10% (48)	3.62% (44)
11:00	0.19% (3)	0.00% (0)
12:00	2.71% (42)	2.80% (34)
13:00	0.39% (6)	0.25% (3)
14:00	0.32% (5)	0.08% (1)
15:00	0.26% (4)	0.16% (2)
16:00	0.13% (2)	0.00% (0)
17:00	0.32% (5)	0.00% (0)
18:00	0.06% (1)	0.00% (0)
19:00	0.06% (1)	0.08% (1)
20:00	0.06% (1)	0.00% (0)
21:00	0.06% (1)	0.00% (0)
22:00	0.06% (1)	0.00% (0)
Total	1548	1215

Access per day		
	Total	completed
2016-05-03	0.06% (1)	0.00% (0)
2016-05-04	0.13% (2)	0.00% (0)
2016-05-13	0.13% (2)	0.08% (1)
2016-05-14	0.78% (12)	0.74% (9)
2016-05-21	0.97% (15)	1.23% (15)
2016-06-07	2.33% (36)	2.55% (31)
2016-06-09	2.78% (43)	3.46% (42)
2016-06-10	0.13% (2)	0.00% (0)
2016-07-20	2.26% (35)	2.80% (34)
2016-07-22	1.94% (30)	2.47% (30)
2016-07-23	5.56% (86)	6.67% (81)
2016-07-25	7.49% (116)	8.81% (107)
2016-07-26	4.13% (64)	4.77% (58)
2016-07-28	1.36% (21)	1.07% (13)
2016-07-29	0.06% (1)	0.08% (1)
2016-07-30	4.07% (63)	4.86% (59)
2016-08-01	2.07% (32)	2.55% (31)
2016-08-02	2.33% (36)	2.96% (36)
2016-08-03	0.06% (1)	0.08% (1)
2016-08-04	5.10% (79)	3.46% (42)
2016-08-05	5.88% (91)	7.08% (86)
2016-08-09	4.91% (76)	4.36% (53)
2016-08-10	4.26% (66)	5.10% (62)
2016-08-11	7.69% (119)	9.22% (112)
2016-08-12	2.58% (40)	2.80% (34)
2016-08-13	3.94% (61)	0.41% (5)
2016-08-14	0.06% (1)	0.00% (0)
2016-08-15	2.39% (37)	2.72% (33)
2016-08-16	5.68% (88)	5.84% (71)
2016-08-17	0.19% (3)	0.00% (0)
2016-08-18	6.91% (107)	6.50% (79)
2016-08-19	0.06% (1)	0.00% (0)
2016-08-20	0.32% (5)	0.00% (0)
2016-08-22	0.06% (1)	0.00% (0)

2016-08-23	0.13% (2)	0.00% (0)
2016-08-24	0.06% (1)	0.00% (0)
2016-08-27	0.13% (2)	0.00% (0)
2016-08-30	0.06% (1)	0.00% (0)
2016-08-31	0.06% (1)	0.00% (0)
2016-09-01	2.78% (43)	3.37% (41)
2016-09-02	0.06% (1)	0.00% (0)
2016-09-03	0.06% (1)	0.00% (0)
2016-09-05	0.06% (1)	0.00% (0)
2016-09-06	0.06% (1)	0.00% (0)
2016-09-09	0.13% (2)	0.00% (0)
2016-09-10	7.17% (111)	3.95% (48)
2016-09-11	0.45% (7)	0.00% (0)
2016-09-12	0.06% (1)	0.00% (0)
Average number of participants per day	32.25	25.31

Access per week		
	Total	completed
Calendar week: 18 (2016)	0.19% (3)	0.00% (0)
Calendar week: 19 (2016)	0.90% (14)	0.82% (10)
Calendar week: 20 (2016)	0.97% (15)	1.23% (15)
Calendar week: 23 (2016)	5.23% (81)	6.01% (73)
Calendar week: 29 (2016)	9.75% (151)	11.93% (145)
Calendar week: 30 (2016)	17.12% (265)	19.59% (238)
Calendar week: 31 (2016)	15.44% (239)	16.13% (196)
Calendar week: 32 (2016)	23.45% (363)	21.89% (266)
Calendar week: 33 (2016)	15.57% (241)	15.06% (183)
Calendar week: 34 (2016)	0.39% (6)	0.00% (0)
Calendar week: 35 (2016)	3.04% (47)	3.37% (41)
Calendar week: 36 (2016)	7.88% (122)	3.95% (48)
Calendar week: 37 (2016)	0.06% (1)	0.00% (0)
Average number of participants per week	119.08	93.46

Drop-outs by page		
Page:	Drop-outs	proceeded to page
Welcome	152 (9.82%)	1548 (100.00%)
Registering	28 (1.81%)	1396 (90.18%)
Internet Access	44 (2.84%)	1368 (88.37%)
Privacy Practice	30 (1.94%)	1324 (85.53%)
Digital Literacy	20 (1.29%)	1294 (83.59%)
Bullying Experiences	9 (0.58%)	1274 (82.30%)
Scene Physical Bullying	3 (0.19%)	1265 (81.72%)
Non-Physical Bullying Experience	0 (0.00%)	1262 (81.52%)
Scene Non-Physical Bullying	4 (0.26%)	1262 (81.52%)
Experience of Cyberbullying	0 (0.00%)	1258 (81.27%)
Cyberbullying's Victim	4 (0.26%)	1258 (81.27%)
Perpetrator of Physical Bullying	1 (0.06%)	1254 (81.01%)
Target Physical Bullying	0 (0.00%)	1253 (80.94%)
Perpetrator Non-Physical Bullying	2 (0.13%)	1253 (80.94%)
Target Non-Physical Bullying	1 (0.06%)	1251 (80.81%)
Experience as Perpetrator of Cyberbullying	2 (0.13%)	1250 (80.75%)
Perpetrator in Internet	5 (0.32%)	1248 (80.62%)
Social Mediation	23 (1.49%)	1243 (80.30%)

Demographie	2 (0.13%)	1220 (78.81%)
Closing	3 (0.19%)	1218 (78.68%)
Final page	0 (0.00%)	1215 (78.49%)
Total	Dropped out	333 (21.51%)
Total	Completed	1199 (77.45%)
Total	Completed after break	16 (1.03%)

Quota statistics		
Quota ID	Name	Target
This project doesn't use quotas.		

Appendix
Student's questionnaire

A. LOGIN

1. Please indicate the **last alphabet** of **your first name** ☐
2. Please indicate (with number) the **month of your birth's day** ☐
3. Please indicate **the last alphabet** of **the street's name** where you **live** at this moment ☐
4. Please indicate the **last alphabet** of **your mother's first name** ☐

Please give "Tick" (√) in the column provided in accordance with your experience with internet.

B. INTERNET ACCESS

5. Do you **personally own or have for your private use** any of these devices? (Tick all that apply)

A	A desktop computer	
B	A laptop computer	
C	A mobile phone that is not a smartphone	
D	A smartphone	
E	A tablet	
F	E-book reader	
G	Global Position System (GPS) device	
H	A games console	
I	A television set	
J	Smartwatch	
K	None of those devices I have	

6. Which devices do you use **to access internet**? (Tick all that apply)

A	Desktop computer	
B	Laptop	
C	A mobile phone	
D	A game console	
E	A television set	
F	A Smartphone	
G	A tablet	
H	A smartwatch or other handled portable device	
I	Others (please mention)...	

7. Where do you **usually** access internet? (Tick all that aplly)

A	In my bedroom (or other private room) at home	

B	in the living room (or other public room) at home	
C	At school	
D	In an internet cafe	
E	In public library or other public place	
F	At a friend's home	
G	At relative's home	
H	"when on the way somewhere/something" use mobile internet devices	
I	Other (please mention)...	

8. Are you able to **connect** to the internet from your **smartphone** / mobile phone and if so, how do you connect? (Tick all that apply)

A	I use free Wifi (at home, in school, cafés, etc)	
B	I use the mobile data package prepaid	
C	I use the mobile data package postpaid	
D	No, my phone does not connect to the internet	
E	I don't have a smartphone	

9. How much do you spend your money **to buy** data package **in a month** (average)?

_____ Rupiah(s)

10. Is there Wifi available **at your school** and if so, are the students allowed to use it?

A	No, Wifi is not available at my school	
B	Yes, Wifi is available but the students are not allowed to use it	
C	Yes, Wifi is available, students are not allowed to use it but we hacked the password	
D	Yes, Wifi is available and the students are allowed to use it but with some restrictions (eg. Not all websites/online activities are accessible)	
E	Yes, Wifi is available and the students are allowed to use it with no restrictions	

11. Are students **allowed** to use their smartphones when at school?

A	No, students are not allowed to use smartphones at my school	
B	Yes, students are allowed to use their smartphones with some restriction (e.g. only when authorized, only during the lesson's break etc)	
C	Yes, students are allowed to use their smartphones and there are no special restrictions	

12. How old were you when you got your **first smartphone**?

A	_____years old	
B	I don't have smartphone	

13. How old were you when you **accessed internet** at the **first time**?

_____years old

C. INTERNET USE

14. How often do you use the internet?

A	Several times each day	
B	Every day or almost every day	
C	Once or twice a week	
D	Once or twice a month	
E	Hardly ever	
F	Never	

15. How long do you use internet on normal school day and on weekend/holiday?

		ON NORMAL SCHOOL DAY	**ON NORMAL NON-SCHOOL (weekend/holidays)**
A	Just a few minutes		
B	About half an hour		
C	About an hour		
D	About two hours		
E	About three hour		
F	About four hour		
G	More than four hours		
H	None at all		

16. How often you have done these things online in the past month?

		Never	**Hardly ever**	**Once or twice a month**	**Once or twice a week**	**Every day or almost every day**	**Several times each day**
A	Used internet for school work						
B	Watch video clips (ex. Youtube.com)						
C	Download musics or films						
D	Read/watch news on the internet						
E	Sent/received email						
F	Visited chatroom						
G	Used instant messaging						
H	Played game in internet						
I	Visited social network sites (SNS)						
J	Made/receive phone call (ex. via Skype)						
K	Spent time in a virtual world						

L	Using Global Positioning System (GPS)						
M	Others (please mention)...						

17. How often you have done these things online in the past month?

		Never	**Hardly ever**	**Once or twice a month**	**Once or twice a week**	**Every day or almost every day**	**Several times each day**
A	Look for new friends or contacts on the internet						
B	Sent personal information (e.g. Your full name, address or phone number) to someone that you never met face to face						
C	Added people to become your "friend" or contacts who you have never met face to face						
D	Pretended to be a different kind of person on the internet from what really you are						
E	Sent a photo or video of yourself to someone that you never met face to face						
F	Watching pornographic image/website unintentionaly						
G	Watching pornographic image/website intentionaly						

18. Do you have your own profile in social network site (SNS)?

YES	**NO**

⇒ **if "NO" jump to no. 25**

D. PRIVACY PRACTICE

19. Do you have one profile or more than one?

A	One profile only	
B	More than one profile	

20. Which **SNS** do you use? If you use more than one, please name the one you use **most often**. (Tick all that apply)

A	Facebook	
B	Twitter	
C	Google+	
D	Instagram	
E	Linkedin	
F	Path	
G	Tumblr	
H	MySpace	
I	Flickr	
J	Ask.fm	
K	Others (please mention)	

21. How many **"friend"** do you have in your SNS contact list?

A	Up to 10	
B	11-50	
C	51-100	
D	101-300	
E	More than 300	
F	Don't know/can't remember	

22. How do you set your SNS **profile**?

A	Public, so that everyone can see	
B	Partially private , so that friends of friends on your network can see	
C	Private, so that only your friend can see	
D	Don't know	

23. Which of **information** do you show on your **profile**? (Tick all that apply)

A	A photo that clearly shows your face	
B	Your complete name	
C	Your complete address	
D	Your phone number	
E	Your school	
F	Your correct date of birth	
G	Your hometown	
H	Your email address	
I	Your interest (hobby)	
J	Your family members' list (parents, sibling, etc. in the network)	
K	Your relationship status	
L	Others (please mention)....	

24. How often you have done these things through SNS in the past month?

		Never	**Rarely**	**Sometimes**	**Often**	**Always or almost always**
A	share "your status", when there is anything to say?					
B	share what's going on in your life (to keep you up-date among your friends)?					
C	share your current location real time?					
D	share your new picture/video?					
E	up-date your profile, when there is something new on it?					
F	share information which you thought interesting being commented					

E. DIGITAL LITERACY

25. Please indicate **how accurate** the following statements are when thinking about **how you use the internet**...

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
A	I know more about the internet than my parents					
B	ICT enables me to finish better my school project and other learning activities					
C	There are lots of things on the internet that are good for youth of my age					
D	I am more motivated to learn with ICT					
E	I find it easy to find a website I have visited before					
F	Internet allowed me to explore my creative hobbies (e.g. create start-up, search design for my cloth, etc.)					
G	I did not just share every information I got from SNS to others					
H	I always rechecked someone's profile who propose to be my "friend" in SNS					
I	I do not just copy and paste article I need to my school assignment					
J	I frequently obtain help with my school work from my friends or my teachers over the Internet e.g. through Skype, Facebook, Blogs					
K	I tend to be careful to post comment in SNS					
L	I did much of consideration if someone I know at SNS invited to meet					
M	I will compare different websites to decide whether an information is true					

26. Which of these things do you know **how to do** on the **internet**? (Tick all that apply)

A	To change filter preferences to select which websites you want to see and not	
B	To bookmark a website (add to favorite)	
C	To block unwanted advert or junk/spam mail	
D	To delete the record of which websites you have visited	
E	To change privacy settings on social network site profile	
F	To block messages from someone you don't want to hear from	
G	To create something new from photo/video/music that I have found online	
H	To upload photo/video/music that I have create myself	

I	To install apps on a mobile devices	
J	To remove people from my contact list	

F. BULLYING EXPERIENCES

27. Have you ever been **physically hurted** (e.g. pinched, hitted, kicked, etc.) by someone in the past 12 month?

A	Never	
B	Once	
C	2-4 times	
D	5-7 times	
E	8-10 times	
F	More than 10 times	

⇒ if "Never" jump to no. 29

G. SCENE OF PHYSICAL BULLYING

28. At any time during the past 12 months, where did **physical** aggressions happened ? (Tick all that aplly)

A	At home	
B	At school	
C	At public place	
D	Others (please mention)...	

H. NON-PHYSICAL BULLYING EXPERIENCES

29. Have you ever been **non-physically hurted** (e.g. insulted, threated, defamed, etc.) by someone in the past 12 month?

A	Never	
B	Once	
C	2-4 times	
D	5-7 times	
E	8-10 times	
F	More than 10 times	

⇒ if "Never" jump to no. 31

I. SCENE OF NON-PHYSICAL BULLYING

30. About **non-physical** aggressions; where did those at any time during the past 12 months happened ? (Tick all that apply)

A	At home	
B	At school	
C	At public place	
D	Others (please mention)...	

J. EXPERIENCES OF CYBERBULLYING

31. In the past 12 months, did you have experience something **on the internet** that has **bothered** you in some way?

A	Never	
B	Once	
C	2-4 times	
D	5-7 times	
E	8-10 times	
F	More than 10 times	

⇒if "Never" jump to no. 40

K. CYBERBULLYING'S VICTIM

32. What kind of **disturbance** experiences on the **internet** have you got in past 12 months? (Tick all that apply)

A	Someone has sent me insulting (text/picture/audio/video) message	
B	Someone has sent me threatening message (text/picture/audio/video)	
C	Someone has sent porn message (text/picture/audio/video) to harass me	
D	Someone has spread gossip (untrues) information (text/picture/audio/video) about me	
E	Someone has hacked my password	
F	Someone had faked my identity online (make a fake profile)	
G	Someone has spread up my personal information (text/picture/audio/video) without any permission	
H	Someone has removed me from e-group (ex. WhatsApp, BBM, FB, etc.) without any explanation	
I	Someone has intentionaly made use my personal information (text/picture/audio/video) to threat/attach me	
J	Someone has shared me link infected by virus	
K	Other (please mention)...	
L	Don't know/Can't remember	

33. And in **which ways** has this happened to you in the past 12 month? (Tick all that apply)

A	On Social Network Site (SNS)	
B	By Instant Messaging (IM)	
C	In chatroom	
D	By email	
E	By Short Message System (SMS)/Multimedi Message System (MMS)	
F	In a gaming website	
G	By phone call	
H	By blog	
I	Other (please mention)...	

34. Did you think you **know** someone who acted that a kind of hurtful or nasty to you?

YES	**NO**

35. Thinking now about the last time this happened to you, **how did you feel** about what happened (if at all)?

		Not at all	**A bit of**	**Fairly**	**Very**	**Highly**

A	Feel depressed					
B	Feel anxious					
C	Worried something worse will be happened					
D	Afraid of meet with perpetrator					
E	Feel angry					
F	Feel sad					

36. Did you **talk to anyone** about what happened?

YES	NO

37. If you answered "YES", **who did you talk to** about it? (Tick all that aplly)

A	My father	
B	My mother	
C	My brother or sister	
D	A friend	
E	A teacher	
F	Another adult I trust	
G	Other (please mention)...	
H	I didn't tell anybody	

38. Still thinking about that time, did you **do any** of these things? (Tick all that apply)

A	I stopped using internet for a while	
B	I deleted any messages from the other person	
C	I changed my privacy/contact settings	
D	I keep the evidences	
E	I blocked the person from contacting me	
F	I reported the problem to the Internet Service Provider (ISP)	
G	Other (please mention)...	
H	Don't know/Can't remember	

39. In which, if any of time this problem come upon you **again**, what **will you do**? (Tick all that apply)

A	I stopped using internet for a while	
B	I deleted any messages from the other person	
C	I changed my privacy/contact settings	
D	I keep the evidences	
E	I blocked the person from contacting me	
F	I reported the problem to the Internet Service Provider (ISP)	
G	Other (please mention)...	
H	Don't know	

L. PERPETRATOR OF PHYSICAL BULLYING

40. Anyway...have you acted in a way that might have **physically hurted** (e.g. pinched, hitted, kicked, etc.) to someone else in the past 12 month?

A	Never	
B	Once	

C	2-4 times	
D	5-7 times	
E	8-10 times	
F	More than 10 times	

⇒**If "Never" jump to no. 43**

M. TARGET OF PHYSICAL BULLYING

41. **To whom** have you acted in a way that might have physically hurted? (Tick all that apply)

A	Junior (in school)	
B	Senior (in school)	
C	Classmate	
D	Teacher	
E	Playmate	
F	Brother	
G	Sister	
H	Parent	
I	Others (please mention)...	
J	Others but I won't tell	
K	Don't know/Can't remember	

42. **Why** did you do that? (Tick all that apply)

A	To take revenge	
B	Hate that person	
C	Just following the members of my group	
D	My friends/group pressured me	
E	Just for fun	
F	Other (please mention)...	
G	Don't know/Can't remember	

N. PERPETRATOR OF NON-PHYSICAL BULLYING

43. Anyway...have you acted in a way that might have **non-physically hurted** (e.g. insulted, threated, defamed, etc.) to someone else in the past 12 month?

A	Never	
B	Once	
C	2-4 times	
D	5-7 times	
E	8-10 times	
F	More than 10 times	

⇒**If "Never" jump to no. 46**

O. TARGET OF NON-PHYSICAL BULLYING

44. **To whom** have you acted in a way that might have **non-physically hurted**? (Tick all that apply)

A	Junior (in school)	
B	Senior (in school)	
C	Classmate	
D	Teacher	
E	Playmate	
F	Brother	
G	Sister	
H	Parent	
I	Others (please mention)...	
J	Others but I won't tell	

K	Don't know/Can't remember	

45. **Why** did you do that? (Tick all that apply)

A	To take revenge	
B	Hate that person	
C	Just following the members of my group	
D	My friends/group pressured me	
E	Just for fun	
F	Other (please mention)...	
G	Don't know/Can't remember	

P. EXPERIENCES AS PERPETRATOR OF CYBERBULLYING

46. At anytime during the last 12 month, have you acted something also **on the internet** that has bothered someone in some way?

A	Never	
B	Once	
C	2-4 times	
D	5-7 times	
E	8-10 times	
F	More than 10 times	

⇒ **if "Never" jump to no. 52**

Q. PERPETRATOR OF CYBERBULLYING

47. What kind of actions did you do to **bother** someone else on the **internet** ...? (Tick all that apply)

A	I have sent insulting (text/picture/audio/video) message to others	
B	I have sent me threatening message (text/picture/audio/video) to others	
C	I have sent porn message (text/picture/audio/video) to harass others	
D	I have spread gossip (untrues) information (text/picture/audio/video) about others	
E	I have hacked others' password	
F	I have faked others' identity online (make a fake profile)	
G	I have spread up others' personal information (text/picture/audio/video) without any permission	
H	I have removed others from e-group (ex. WhatsApp, BBM, FB, etc.) without any explanation	
I	I have intentionaly made use others' personal information (text/picture/audio/video) to threat/attach them	
J	I shared a link which was infected by virus to others	
K	Other (please mention)...	
L	Don't know/Can't remember	

48. In which ways did you do that in the last 12 months? (Tick all that apply)

A	Social Network Sites (e.g. *FB, Instagram, Twitter* ,ect.)	
B	*Instant messaging* (e.g. *WhatsApp, BBM, Line* , ect.)	
C	*Chatting room* (e.g. *yahoo messager, google talk, ect.*)	
D	Email	
E	*Short Message System (SMS)/Multimedia Message System (MMS)*	
F	Game online	
G	By phone call	
H	Blog	
I	Others (please mention)....	
J	Don't know/Can't remember	

49. **To whom** have you acted in a way that might have felt hurtful or nasty in **internet**? (Tick all that apply)

A	Junior (in school)	
B	Senior (in school)	
C	Classmate	
D	Teacher	
E	Playmate	
F	Brother	
G	Sister	
H	Parent	
I	Others (please mention)...	
J	Others but I won't tell	
K	Don't know/Can't remember	

50. **Why** did you do that? (Tick all that apply)

A	To take revenge	
B	Hate that person	
C	Just following the members of my group	
D	My friends/group pressured me	
E	Just for fun	
F	Other (please mention)...	

51. Did you **feel regret** to have felt hurtful or nasty others?

YES	NO

R. SOCIAL MEDIATION

52. How much do you think **your parent knows** about what you do on the internet?

A	A lot	
B	Quite a lot	
C	Quite a bit	
D	Just a little	
E	Nothing	

53. Would you like your parent to take more or less interest in **what you do on the internet**, or stay about the same?

A	A lot more	
B	A little more	
C	A little less	
D	A lot less	
E	They do not need to know at all	

54. Which of the following things, if any, do **your parent** do with you?

		Never	**Rarely**	**Sometimes**	**Often**	**Always or almost always**
A	Talk to you about what you do on the internet					
B	Sit with you while you uses the internet (watching what you are doing but not really joining in)					
C	Stay nearby when you uses the internet					
D	Encourage you to explore and learn things on the internet on your own					
E	Do shared activities together with you on the internet (e.g. Give comment each other in FB/WhatsApp/BBM, etc.)					

55. For each of these things, please tell us if your parent are currently **allowed** you to do them all of the time, allowed to do them but only with your parent's permission or supervision, or never allowed to do them.

		Don't know	**Can never do this**	**Can only do this with permission & supervision**	**Can do this anytime**
A	Use instant messaging (e.g. BBM, WhatsApp)				
B	Download music or films				
C	Watch video clips (e.g. on YouTube)				
D	Have your own social networking profile				
E	Give out personal information to others on the internet (e.g. my/his/her full name, address or phone number)				
F	Upload photos, videos or music to share with others				
G	Download free apps				
H	Download paid apps				
I	Show my geographical location(using Facebook, Foursquare, etc.)				
J	Use a webcam				

56. Have your **parent** ever done any of the following things with you?

		Never	Rarely	Sometimes	Often	Always or almost always
A	Helped you when something is difficult to do or to find on the internet					
B	Explain why some websites are good or bad					
C	Suggested ways to use the internet safely					
D	Suggested ways to behave towards other people online					
E	Helped you in the past when something has bothred you on the internet					
F	Talked to you about what you would do if something on the internet ever bother you					

57. When you use **internet at home**, do your parent ....

		Never	Rarely	Sometimes	Often	Always or almost always
A	Curious to know which website you visited?					
B	Curious to know the messages in your email or instant messaging account?					
C	Curious to know your profile on a social network or online community?					
D	Curious to know which video you have watched in Youtube?					
E	Curious to know which friends or contacts you add to your social networking profile or instant messaging service?					
F	Limit the time you spend on the internet?					

58. Do your parent make use any of the following **for the computer** that you use the most often **at home**...(Tick all that apply)

A	Parental control or other means of keeping track of the websites you visit	
B	Parental control or other means of blocking or filtering some types of websites	
C	Software to prevent spam/junk mail or viruses	
D	None of those devices used at home	
E	Don't know/Can't remember	

59. Do you thing that **your parent help to make your internet experience better**, or not really?

A	Yes, a lot	
B	Yes , a little	
C	No	

60. Do you thing that your **parent restrict** what you can do on the internet, or not really?

A	Yes, a lot	
B	Yes , a little	
C	No	

61. Have your **friends** ever done any of the following things with you?

		Never	**Rarely**	**Sometimes**	**Often**	**Always or almost always**
A	Helped you when something is difficult to do or to find on the internet					
B	Explain why some websites are good or bad					
C	Suggested ways to use the internet safely					
D	Suggested ways to behave towards other people online					
E	Helped you in the past when something has bothred you on the internet					
F	Talked to you about what you would do if something on the internet ever bother you					

62. Have you ever **suggested** ways to use the **internet safely** for your friends?

A	Always or almost always	
B	Often	
C	Sometimes	
D	Rarely	
E	Never	

63. Have any **teacher** at your school ever done any of the following things with you?

		Never	**Rarely**	**Sometimes**	**Often**	**Always or almost always**
A	Helped you when something is difficult to do or to find on the internet					
B	Explain why some websites are good or bad					
C	Suggested ways to use the internet safely					
D	Suggested ways to behave towards other					
E	Made a rule about using internet in school					
F	Helped you in the past when something has bothred you on the internet					
G	Talked to you about what you would do if something on the internet ever bother you					
H	Made rules about internet usage in school					
I	Talked to you about rules for smarthphone usege in school					

64. Have you ever received advice about how to use the **internet safely** from any of these **parties**? (Tick all that apply)

A	My school's staff (e.g. Librarian, laboratory staff, etc.)	
B	Television, radio, newspaper or magazine	
C	Radio	
D	Magazines/newspaper	
E	Internet (website)	
F	Internet service provider	
G	Government staff	
H	Indonesian Children Protection Commission (KPAI)	
I	Children's NGO	
J	Other relatives (e.g. Brother, sister, aunt, uncle, granparent, etc)	
K	Others...(please mention)...	

S. DEMOGRAPHY

65. Please identify your **gender** ...

A	Female	
B	Male	

66. How old are you now?

_____years old

67. With **whom** do you **live** (at home) now? (Tick all that apply)

A	Mother	
B	Father	
C	Older sister/brother	
D	Younger sister/brother	
E	Grandparent	
F	Uncle/Aunt	
G	Other (please mention)....	
H	I live alone at home	
I	I live in boarding house	

68. In which **grade** are you in school now?

A	7	
B	8	
C	9	
D	10	
E	11	
F	12	

69. How much is your **pocket money** for a **month** (in average)?

A	≤Rp 150.000,00	
B	Rp 150.001,00 - Rp 300.000,00	
C	Rp 300.001,00 - Rp 450.000,00	
D	Rp 450.001,00 - Rp 600.000,00	
E	≥Rp 600.001,00	

70. Please identify in which **school type** you have your education now...

A	Public school	
B	Private school	

71. Please identify your parent's education...

		Father's last education	**Mother's last education**
A	Unfinished elementary school		
B	Finished elementary school		
C	Finished junior high school		
D	Finished high school		
E	Finished associate degree		
F	Finished bachelor/master/doctoral degree		

72. Please identify your parent's **occupation**...

Father's occupation :_____
Mother's occupation :_____

To engage you in 100 book vouchers' raffle, we require your email address and your contact number. We will notify "the 100 lucky respondents" by email and / or phone number has been given to.

Your email address :_____
Your phone number :_____

☺ Thank you for your participation ☺

Appendix
Parent's questionnaire

A. LOGIN

1. Please indicate the **last alphabet** of **your son/daughter's first name** (who became respondent of this research)... ☐

2. Please indicate (with number) the **month** of **your son/daughter's birth day** (who became respondent of this research) ... ☐

3. Please indicate **the last letter of the name of the street** where you live at this moment ☐

4. Please indicate the **last alphabet** of **mother's first name** of **the boy/girl** who become respondent of this research... ☐

Please give "Tick" (√) in the column provided in accordance with your experience with internet.

A. Internet Access and Use

5. How old is your child (who became respondent of this research) now?

   _____years old

6. How many sibling does she/he have?

A	0	
B	1	
C	2	
D	3	
E	4	
F	More than 4	

7. In which grade is your she/he now?

A	7	
B	8	
C	9	
D	10	
E	11	
F	12	

8. In which school type does she/he have education now?

A	Public school	
B	Private school	

9. Does she/he personally own or have for her/his private use any of these devices? (Tick all that apply)

A	A desktop computer	
B	A laptop computer	

C	A mobile phone that is not a smartphone	
D	A smartphone	
E	A tablet	
F	E-book reader	
G	Global Position System (GPS) device	
H	A games console	
I	A television set	
J	Smartwatch	

10. As far as you are aware, in which of these places does she/he use the internet these days? (Tick all that apply)

A	In her/his bedroom (or other private room) at home	
B	In the living room (or other public room) at home	
C	At school	
D	In an internet cafe	
E	In public library or other public place	
F	At her/his friend's home	
G	At relative's home	
H	"when on the way somewhere/something" use mobile internet devices	
J	Other (please mention)...	
K	Don't know	

11. Do you personally use the internet?

YES	NO

⇒ if **"NO"** jump to no. 16

12. Do you use the internet in any of these places? (Tick all that apply)

A	At home	
B	At work	
C	At internet cafe	
D	"when on the way somewhere/something" use mobile internet devices	
E	Other (please mention)...	

13. How often do you use the internet?

A	Hardly ever	
B	Once or twice a month	
C	Once or twice a week	
D	Everyday or almost everyday	
E	Several times each day	

B. Digital Literacy

14. Please indicate how accurate the following statements are when thinking about how you use the internet...

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
A	I know more about the internet than my child					
B	Internet helps my child to finish better her/his school projects					
C	There are lots of things on the internet that are good for me					
D	I am more motivated to do many things with ICT					
E	I am familiar with my smartphone operating system					
F	I find it easy to find a website I have visited before					
G	I know which information (e.g. text, picture, video) I should and shouldn't share online					
H	I always re-checked someone's profile who propose to be my "friend" in SNS					
I	I frequently obtain help maintaining good relations with my friends and/or my family over the Internet (e.g. Facebook, WhatsApp.)					
J	I tend to be careful to post comment in SNS					
K	I did much of consideration if someone I know at SNS invited to meet					
L	I tend to be careful to reveal my personal identity online					

15. Which of these things do you know how to do on the internet? (Tick all that apply)

A	To compare different websites to decide if the information is true	
B	To change filter preferences to select which websites you want to see and not	
C	To bookmark a website (add to favorite)	
D	To block unwanted advert or junk/spam mail	
E	To delete the record of which websites you have visited	
F	To change privacy settings on social network profile	
G	To block messages from someone you don't want to hear from	
H	To maintain good relationship in SNS	
I	To create something new from photo/video/music that I have found online	

J	To upload photo/video/music that I have create myself	
K	To install apps on a mobile devices	
L	To remove people from my contact list	
M	None of those I could do	

C. Parent Mediation

16. How much do you think you know about what your child do on the internet?

A	A lot	
B	Quite a bit	
C	Just a little	
D	Nothing	

17. Would you like to take more or less interest in what your child do on the internet, or stay about the same?

A	A lot more	
B	A little more	
C	Stay the same	
D	A little less	
E	A lot less	

18. Which of the following things, if any, do you (or your partner) sometimes do with your child?

		Never	**Rarely**	**Sometimes**	**Often**	**Always or almost always**
A	Talk to her/him about what she/he does on the internet					
B	Sit with her/him while she/he uses the internet (watching what she/he is doing but not really joining in)					
C	Stay nearby when she/he uses the internet					
D	Encourageher/him to explore and learn things on the internet on their own					
E	Do shared activities together with her/him on the internet (e.g. Give comment each other in FB/WhatsApp/BBM, etc.)					

19. For each of these things, please tell us if she/he is currently allowed to do them all of the time, allowed to do them but only with your (or your partner's) permission or supervision, or never allowed to do them?

		Can do this anytime	**Can only do this with permission & supervision**	**Can never do this**

A	Use instant messaging (e.g. BBM, WhatsApp			
B	Download music or films on the internet			
C	Watch video clips on the internet (e.g. on YouTube)			
D	Have his/her own social networking profile			
E	Give out personal information to others on the internet (e.g. my/his/her full name, address or phone number)			
F	Upload photos, videos or music to share with others			
G	Download free apps			
H	Pay for downloading apps			
I	Show up actual geographical location to others (using Facebook, Foursquare, etc.)			
J	Use a webcam			

20. Have you (or your partner) ever done any of the following things with your child?

		Never	**Rarely**	**Sometimes**	**Often**	**Always or almost always**
A	Helped her/him when something is difficult to do or to find on the internet					
B	Explain her/him why some websites are good or bad					
C	Suggested her/him ways to use the internet safely					
D	Suggested her/him ways to behave towards other people online					
E	Helped her/him in the past when something has bothred her/him on the internet					
F	Talked to her/him about what she/he should do if something on the internet ever bother her/him					

21. When your child use internet at home, do you (or your partner) ....

		Never	**Rarely**	**Sometimes**	**Often**	**Always or almost always**
A	Curious to know which website she/he visited					
B	Curious to know the messages in her/his email or instant messaging account					
C	Curious to know her/his profile on a social network or online community					
D	Curious to know which friends or contacts your child add to her/his social networking profile or instant messaging service					

E	limit the time she/he spend on the internet					

22. Do you (or your partner) make use any of the following for the computer that she/he uses the most often at home...(Tick all that apply)

A	Parental control or other means of keeping track of the websites your child visit	
B	Parental control or other means of blocking or filtering some types of websites	
C	Software to prevent spam/junk mail or viruses	
D	None of those devices used at home	

23. Do you (or your partner) thing that you help to make her/his internet experience better, or not really?

A	Yes, a lot	
B	Yes , a litte	
C	No	

24. Do you thing that you (or your partner) restrict what your child can do on the internet, or not really?

A	Yes, a lot	
B	Yes , a litte	
C	No	

25. As far as you (or your partner) are aware, in the past year, has she/he seen or experienced something on the internet that has disturbed her/him in some way?

A	Never	
B	Rarely	
C	Sometime	
D	Often	
E	Always or almost always	
F	Don't know	

26. Can you tell us about an event that has particularly disturbed to her/him?

_____
_____
_____

27. Thinking about that time, how upset do you think she/he felt about it (if at all)?

A	Very upset	
B	Fairly upset	
C	A bit upset	
D	Not at all upset	
E	Don't know	

28. Please indicate your standpoint on these statements

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
A	Cyberbullying is an actual problem for adolescents in Indonesia					
B	Bullying has bad influences on student's					
C	As parent, I concern about cyberbullying					
D	Schools should have an assertive policy to prevent bullying in school and on the internet for students					
E	Schools should involve parents overcome					

29. In general where do you (or your partner) get information and advice on how to help and support your child on the internet and keep her/him safe? (Tick all that apply)

A	My child's school	
B	Television	
C	Radio	
D	Newspapers or magazines	
E	Internet (websites)	
F	Internet service providers	
G	Government staff	
H	Indonesian Children Protection Commission (KPAI)	
I	Children's NGO	
J	Manufactures & retailers selling devices or products	
K	Family or friends	
L	From my child	
M	Others (please mention)...	

30. This questionnair is filled by ....

A	Father	
B	Mother	
C	Foster parent	
D	Grand parent	
E	Others (please mention)...	

31. How old are you?

_____years old

32. Please tell us what was the highest level of education you and other parent/carer have completed?

		Father	Mother
A	Unfinished elementary school		
B	Finished elementary school		
C	Finished junior high school		
D	Finished high school		
E	finished associate degree		
F	Finished bachelor/master/doctoral degree		

33. Please tell us what is your occupation?

_____

34. And what is the occupation's the other parent/carer in the household?

_____

35. How much is your family expenses in a month (average)?

A	≤Rp 2.000.000,00	
B	Rp 2.000.001,00 - Rp 4.000.000,00	
C	Rp 4.000.001,00 - Rp 6.000.000,00	
D	Rp 6.000.001,00 - Rp 8.000.000,00	
E	Rp 8.000.001,00 - Rp 10.000.000,00	
F	≥Rp 10.000.001,00	

36. Could we have your name and your contact phone number for follow-up this research? (optional)

Name : _____

Phone number : _____

Thank you very much for your participation in this research.

Appendix
Teacher's questionnaire

Please give "Tick" (√) in the column provided in accordance with your experience with internet.

A. Internet Access and Usage

1. Which these **digital media** do you personally have for your **private use**? (Tick all that apply)

A	A desktop computer	
B	A laptop computer	
C	A mobile phone that is not a smartphone	
D	A smartphone	
E	A tablet	
F	E-book reader	
G	Global Position System (GPS) device	
H	A games console	
I	A television set	
J	Smartwatch	

2. Which **devices** do you use to **access internet**? (Tick all that apply)

A	Desktop computer	
B	Laptop	
C	A mobile phone	
D	A game console	
E	A television set	
F	A Smartphone	
G	A tablet	
H	A smartwatch	
I	Others (please mention)...	

3. How often you have done these things online in the past month?

		Never	**Hardly ever**	**Once or twice a month**	**Once or twice a week**	**Every day or almost every day**	**Several times each day**
A	Used internet for searching work materials						
B	Watch video clips (ex. Youtube.com)						
C	Download musics or films						
D	Read/watch news						
E	Sent/received email						
F	Visited chatroom						
G	Used instant messaging						
H	Played game with others						
I	Visited social network sites						
J	Made/receive phone call (ex. via Skype)						
K	Spent time in a virtual world						

L	Using Global Positioning System (GPS)						
M	Others (please mention)...						

4. Do you access the **internet** in any of these **places**? (Tick all that apply)

A	At home	
B	At work	
C	At internet cafe	
D	when on the way somewhere/something use mobile internet devices	
E	Other (please mention)...	

5. Is there **Wifi** available at **school,** and if so, are the students allowed to use it?

A	No, Wifi is not available at school	
B	Yes, Wifi is available but the students are not allowed to use it	
C	Yes, Wifi is available and students are allowed to use it with restrictions	
D	Yes, Wifi is available and the students are allowed to use it with no restrictions	

6. Are students allowed to use their **smartphones** when at **school**?

A	No, students are not allowed to use smartphones at school	
B	Yes, students are allowed to use their smartphones with some restriction (e.g. only when authorized, only during the lesson's break etc)	
C	Yes, students are allowed to use their smartphones and there are no special restrictions	

B. Digital Literacy

7. Please indicate how accurate the following statements are when thinking about how you **use** the internet...

		Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
A	I know more about the internet than my students					
B	Internet helps my students to finish better her/his school projects					
C	There are lots of things on the internet that are good for me					
D	I am more motivated to do many things with ICT					
E	I find it easy to find a website I have visited before					
F	I do not just copy and paste article I need to teach my students					

G	I know which information (e.g. text, picture, video) I should and shouldn't share online					
H	I always re-checked someone's profile who propose to be my "friend" in SNS					
I	I frequently obtain help maintaining good relations with my friends and/or my family over the Internet e.g. through Facebook, WhatsApp.					
J	I tend to be careful to post comment in SNS					
K	I give much of consideration if someone I know at SNS invited to meet					
L	I tend to be careful to reveal my personal identity online					

8. Which of these things do you know **how to do** on the internet? (Tick all that apply)

A	To compare different websites to decide if the information is true	
B	To change filter preferences to select which websites you want to see and not	
C	To bookmark a website (add to favorite)	
D	To block unwanted advert or junk/spam mail	
E	To delete the record of which websites you have visited	
F	To change privacy settings on social network profile	
G	To block messages from someone you don't want to hear from	
H	To maintain good relationship in SNS	
I	To create something new from photo/video/music that I have found online	
J	To upload photo/video/music that I have create myself	
K	To install apps on a mobile devices	
L	To remove people from my contact list	

C. School Mediation

9. How much do you think you know about what your **students** do on the internet?

A	A lot	
B	Quite a bit	
C	Just a little	
D	Nothing	

10. Would you like to take more or less interest in what your **students** do on the internet, or stay about the same?

A	A lot more	

B	A little more	
C	A little less	
D	A lot less	
E	Not at all	

11. Which of the following things, if any, **do** you do with your **students**?

		Never	Rarely	Sometimes	Often	Always or almost always
A	Talk to them about what they do on the internet					
B	Encourage them to explore and learn things on the internet on their own					
C	Do shared activities together with them on the internet (e.g. E-group class in Facebook/WhatsApp/BBM)					
D	Make agreement among students and teachers on "well-communicating" in internet					
E	Conducting teaching activities using internet media (e.g. watching / critiquing internet media)					

12. For each of these things, do you think your **student** are currently **allowed** to do them all of the time, allowed to do them but only with older people (e.g.their parent, teacher) permission or supervision, or never allowed to do them?

		Can do this anytime	Can only do this with permission & supervision	Can never do this
A	Use instant messaging (e.g. BBM, WhatsApp			
B	Download music or films			
C	Watch video clips (e.g. on YouTube)			
D	Have his/her own social networking profile			
E	Give out personal information to others on the internet (e.g. my/his/her full name, address or phone number)			
F	Upload photos, videos or music to share with others			
G	Download free apps			
H	Download paid apps			
I	Show her/his geographical location(using Facebook, Foursquare, etc.)			

J	Use a webcam			

13. Have you ever **done** any of the following things with your **students**?

		Never	Rarely	Sometimes	Often	Always or almost always
A	Helped them when something is difficult to do or to find on the internet					
B	Explain them why some websites are good or bad					
C	Suggested them ways to use the internet safely					
D	Suggested them ways to behave towards other people online					
E	Helped them in the past when something has bothred them on the internet					
F	Talked to them about what they should do if something on the internet ever bother them					

14. Do you thing that you do relating to how you use the internet **help to make** your students internet experience **better**, or not really?

A	Yes, a lot	
B	Yes , a litte	
C	No	

15. Do you thing that you do relating to how you use the internet **restrict** what your students can do on the internet, or not really?

A	Yes, a lot	
B	Yes , a litte	
C	No	

16. As far as you are aware, in the past year, have your students seen or experienced something on the internet that has disturb**ed** them in some way?

A	Never	
B	Rarely	
C	Sometime	
D	Often	
E	Always or almost always	
E	Don't know	

17. Can you tell us about an event that has particularly **disturbed** to your students?

_____
_____
_____

18. Thinking about that time, **how upset** do you think your students felt about it (if at all)?

A	Very upset	
B	Fairly upset	

C	A bit upset	
D	Not at all upset	
E	Don't know	

20. Please indicate your standpoint on these statements

		Strongly agree	**Agree**	**Neither agree nor disagree**	**Disagree**	**Strongly disagree**
A	Cyberbullying is an actual problem for adolescents in Indonesia					
B	Bullying has bad influences on student's achievement					
D	As a teacher, I concern about cyberbullying					
E	Schools should have an assertive policy to prevent bullying in school and on the internet for students					
F	Schools should involve parents overcome bullying at school and on the internet					

21. In general where do you get **information** and advice on how to help and support your students on the **internet** and keep them **safe**? (Tick all that apply)

A	Students' parents	
B	Students	
C	Television	
D	Radio	
E	Newspapers or magazines	
F	Internet (website)	
G	Internet service providers	
H	Government's staff	
I	Indonesian Children Protection Commission (KPAI)	
J	Children's NGO	
K	Manufactures & retailers selling devices or products	
L	Family or friends	
M	Others (please mention)...	

D. Demographic

21. Please identify your **gender**

A	Female	
B	Male	

22. How old are you? _____years old

23. In which **grade** do you teach?

A	7	
B	8	
C	9	
D	10	

E	11	
F	12	

24. Which **subject** do you teach?

_____

25. Please identify in which **type school** do you teach?

A	Public school	
B	Private school	

26. Could we have your name and your contact phone number for follow-up this research? (optional)

Name : _____

Phone number : _____

Thank you very much for participating in this research.

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WEBSITE : www.perizinan.jogjakota.go.id

SURAT IZIN

NOMOR : 070/2584
5088/34

Membaca Surat : Dari Dekan FISIPOL - Univ. Atmajaya Yogyakarta
Nomor : 722/Eks/U Tanggal : 13 Juli 2016

Mengingat :
1. Peraturan Gubernur Daerah istimewa Yogyakarta Nomor : 18 Tahun 2009 tentang Pedoman Pelayanan Perizinan, Rekomendasi Pelaksanaan Survei, Penelitian, Pendataan, Pengembangan, Pengkajian dan Studi Lapangan di Daerah Istimewa Yogyakarta.
2. Peraturan Daerah Kota Yogyakarta Nomor 10 Tahun 2008 tentang Pembentukan, Susunan, Kedudukan dan Tugas Pokok Dinas Daerah;
3. Peraturan Walikota Yogyakarta Nomor 29 Tahun 2007 tentang Pemberian Izin Penelitian, Praktek Kerja Lapangan dan Kuliah Kerja Nyata di Wilayah Kota Yogyakarta;
4. Peraturan Walikota Yogyakarta Nomor 85 Tahun 2008 tentang Fungsi, Rincian Tugas Dinas Perizinan Kota Yogyakarta;
5. Peraturan Walikota Yogyakarta Nomor 20 tahun 2014 tentang Penyelenggaraan Perizinan pada Pemerintah Kota Yogyakarta;

Diijinkan Kepada :

Nama	:	Terlampir
No. Mhs/ NIM	:	-
Pekerjaan	:	Peneliti FISIPOL - Univ. Atmajaya Yk
Alamat	:	Jl. Babarsari No. 6 Yogyakarta
Penanggungjawab	:	Dr. MC. Ninik Sri Rejeki, M.Si
Keperluan	:	Melakukan Penelitian dengan judul Proposal : LITERASI DIGITAL, PRAKTEK PRIVASI DI SITUS PERTEMANAN DAN PENGALAMAN PERISAKAN REMAJA DI INTERNET

Lokasi/Responden : Kota Yogyakarta
Waktu : 15 Juli 2016 s/d 15 Oktober 2016
Lampiran : Proposal dan Daftar Pertanyaan
Dengan Ketentuan :
1. Wajib Memberikan Laporan hasil Penelitian berupa CD kepada Walikota Yogyakarta (Cq. Dinas Perizinan Kota Yogyakarta)
2. Wajib Menjaga Tata tertib dan menaati ketentuan-ketentuan yang berlaku setempat
3. Izin ini tidak disalahgunakan untuk tujuan tertentu yang dapat mengganggu kesetabilan pemerintahan dan hanya diperlukan untuk keperluan ilmiah
4. Surat izin ini sewaktu-waktu dapat dibatalkan apabila tidak dipenuhinya ketentuan-ketentuan tersebut diatas

Kemudian diharap para Pejabat Pemerintahan setempat dapat memberikan bantuan seperlunya

Tanda Tangan
Pemegang Izin

Terlampir

Dikeluarkan di : Yogyakarta
Pada Tanggal : 15 Juli 2016
An. Kepala Dinas Perizinan
Sekretaris

PEMERINTAH KOTA YOGYAKARTA
DINAS PERIZINAN

Dra. CHRISTY DEWAYANI, MM
NIP. 196304081986032019

Tembusan Kepada :
Yth 1.Walikota Yogyakarta (sebagai laporan)
2.Ka. Dinas Pendidikan Kota Yogyakarta
3.Ka. Kantor Kementerian Agama Kota Yogyakarta
4.Kepala SMP Negeri 1 Yogyakarta
5.Kepala SMP Negeri 2 Yogyakarta
6.Kepala SMP Negeri 7 Yogyakarta
7.Kepala SMP Negeri 9 Yogyakarta
8.Kepala SMP Negeri 13 Yogyakarta
9.Kepala SMP Stella Duce 1 Yogyakarta

10. Kepala SMP Budya Wacana Yogyakarta
11. Kepala Maria Immaculata Marsudirini Yogyakarta
12. Kepala SMP Bhineka Tunggal Ika Yogyakarta
13. Kepala SMP Stella Duce 2 Yogyakarta
14. Kepala SMP Pangudi Luhur Yogyakarta
15. Kepala SMA Negeri 2 Yogyakarta
16. Kepala SMA Negeri 3 Yogyakarta
17. Kepala SMA Negeri 5 Yogyakarta
18. Kepala SMA Negeri 7 Yogyakarta
19. Kepala SMA Negeri 8 Yogyakarta
20. Kepala SMA Negeri 11 Yogyakarta
21. Madrasah Aliyah Negeri Yogyakarta 1
22. Kepala SMA Bopkri 1 Yogyakarta
23. Kepala SMA Stella Duce 1 Yogyakarta
24. Kepala SMA Santa Maria Yogyakarta
25. Kepala SMA Bhineka Tunggal Ika Yogyakarta
26. Kepala SMA Berbudi Yogyakarta
27. Dekan FISIPOL – Universita Atamajaya Yogyakarta
28. Ybs.

LAMPIRAN : SURAT IZIN
JENIS IZIN : PENELITIAN
NOMOR : 070/2584

DAFTAR PESERTA YANG PENELITIAN
DI WILAYAH KOTA YOGYAKARTA

NO	NAMA	NO IDENTITAS	KETERANGAN
1	Y. BAMBANG WIRATMOJO, S.Sos., MA	0521047501	KETUA
2	RANGGABUMI NUSWANTORO, S.Sos., M.A	0506028401	KOORDINATOR LAPANGAN

Sekretaris Dinas Perizinan

Dra. CHRISTY DEWAYANI, MM
NIP 196304081986032019

Appendix H

Variable reliability test: Cronbach alpha score

1. Internet access

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,443	,503	3

Item Statistics

	Mean	Std. Deviation	N
Total owned digital devices	1,2655	,46036	1194
Total online digital devices	1,1122	,31842	1194
Total online place	1,6039	,70895	1194

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Total owned digital devices	2,7161	,735	,268	,086	,356
Total online digital devices	2,8693	,850	,353	,126	,318
Total online place	2,3777	,389	,301	,103	,391

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
3,9816	1,158	1,07614	3

2. Internet use

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,768	,768	23

Item Statistics

	Mean	Std. Deviation	N
Frequent of Internet Use	5,27	,744	1194
On a normal school day	5,47	1,975	1194
On a normal non-school day (weekend/holiday)	6,59	1,868	1194
Used internet for school work	4,59	1,232	1194
Watched video clips (e.g. Youtube, Vimeo, etc.)	4,17	1,404	1194
Download musics or films	3,43	1,522	1194
Read/watched news on the internet	4,16	1,570	1194
Sent/received email	3,15	1,527	1194
Visited chatroom (e.g. Yahoo Messager, Google Talk, etc.)	2,84	1,852	1194
Used INSTANT MESSAGES (e.g. WhatsApp, BBM, Line, etc.)	5,24	,986	1194
Played online game	2,97	1,846	1194
Visited social network sites (e.g. Facebook, Instagram, Twitter, etc.)	5,02	1,141	1194
Made/received phone/video CALL (e.g. Skype, Facebook, etc.)	3,07	1,715	1194
Spent time in a virtual world	4,50	1,582	1194
Used global positioning system (GPS)	3,06	1,586	1194
Others...	,37	1,145	1194
Look for new friends or contacts on the internet	3,18	1,599	1194
Shared personal information (e.g. your full name, address or phone number) to someone that you never met face to face	1,66	1,275	1194
Added people to become your "friend" or contacts who you have never met face to face	2,25	1,491	1194
Pretended to be a different kind of person on the internet from what really you are	1,46	1,080	1194
Shared a photo or video of yourself to someone that you never met face to face	1,28	,898	1194
Watched pornographic image/website unintentionaly	2,26	1,307	1194
Watched pornographic image/website intentionaly	1,52	1,009	1194

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Frequent of Internet Use	72,25	177,395	,166	,213	,767
On a normal school day	72,05	164,354	,256	,494	,766
On a normal non-school day (weekend/holiday)	70,93	164,974	,266	,499	,765
Used internet for school work	72,93	173,278	,199	,113	,766
Watched video clips (e.g. Youtube, Vimeo, etc.)	73,35	163,529	,438	,273	,753
Download musics or films	74,09	164,129	,379	,224	,756
Read/watched news on the internet	73,36	166,975	,291	,185	,762
Sent/received email	74,38	162,290	,427	,302	,753
Visited chatroom (e.g. Yahoo Messager, Google Talk, etc.)	74,68	160,800	,362	,228	,757
Used INSTANT MESSAGES (e.g. WhatsApp, BBM, Line, etc.)	72,28	173,993	,241	,268	,764
Played online game	74,56	164,648	,278	,192	,764
Visited social network sites (e.g. Facebook, Instagram, Twitter, etc.)	72,50	170,326	,323	,256	,760
Made/received phone/video CALL (e.g. Skype, Facebook, etc.)	74,45	158,774	,452	,301	,750
Spent time in a virtual world	73,03	163,320	,381	,233	,756
Used global positioning system (GPS)	74,46	159,994	,467	,263	,750
Others...	77,15	177,478	,080	,054	,772
Look for new friends or contacts on the internet	74,34	163,606	,369	,298	,756
Shared personal information (e.g. your full name, address or phone number) to someone that you never met face to face	75,86	168,693	,330	,331	,759
Added people to become your "friend" or contacts who you have never met face to face	75,27	165,594	,350	,319	,758
Pretended to be a different kind of person on the internet from what really you are	76,06	172,799	,256	,182	,764
Shared a photo or video of yourself to someone that you never met face to face	76,24	174,124	,266	,292	,764
Watched pornographic image/website unintentionaly	75,26	170,233	,273	,172	,763
Watched pornographic image/website intentionaly	76,00	172,667	,285	,245	,762

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
77,52	181,235	13,462	23

3. Privacy practices on SNSs

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,644	,614	10

Item Statistics

	Mean	Std. Deviation	N
Amount of SNS's Account Ownership	1,91	,285	1167
Total SNS account owned	1,54	,534	1167
Privacy Setting	2,75	,849	1167
Total in SNS disclosure	1,43	,562	1167
Shared "your status", when there is anything to say?	3,63	1,359	1167
Shared what's going on in your life (to keep you up-date among your friends)?	3,53	1,446	1167
Shared your current location real time?	3,22	1,577	1167
Shared your new picture/video?	3,25	1,620	1167
Up-date your profile, when there is something new on it?	3,86	1,184	1167
Shared information which you thought interesting being commented?	3,64	1,296	1167

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Amount of SNS's Account Ownership	26,86	31,617	,156	,062	,646
Total SNS account owned	27,23	30,782	,191	,076	,641
Privacy Setting	26,01	30,586	,095	,024	,654
Total in SNS disclosure	27,34	31,128	,121	,036	,647
Shared "your status", when there is anything to say?	25,14	24,517	,433	,228	,589
Shared what's going on in your life (to keep you up-date among your friends)?	25,24	23,275	,490	,296	,572
Shared your current location real time?	25,55	23,083	,437	,230	,587
Shared your new picture/video?	25,51	23,540	,384	,152	,604
Up-date your profile, when there is something new on it?	24,91	26,356	,366	,163	,607
Shared information which you thought interesting being commented?	25,12	26,245	,322	,129	,617

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
28,77	32,199	5,674	10

4. Digital literacy

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,761	,784	14

Item Statistics

	Mean	Std. Deviation	N
I know more about the internet than my parents	3,01	1,417	1194
ICT enables me to finish better my school project and other learning activities	4,35	,630	1194
There are lots of things on the internet that are good for youth of my age	4,27	,616	1194
I am more motivated to learn with ICT	3,72	,819	1194
I find it easy to find a website I have visited before	3,92	,766	1194
Internet allowed me to explore idea for my creative hobbies (e.g. create start-up, search design for my cloth, etc.)	3,96	,804	1194
I did not just share every information I got from SNS to others	3,67	,899	1194
I always rechecked someone's profile who propose to be my "friend" in SNS	4,11	,800	1194
I did not just copy and paste article I need to my school assignment	3,65	,867	1194
ICT helps me keeping good relationship with my friends and/or my teachers	3,98	,761	1194
I tend to be careful to post comment in SNS	4,36	,666	1194
I did much of consideration if someone I know at SNS invited to meet	4,55	,750	1194
I will compare different websites to decide whether an information is true	4,30	,683	1194
Total digital skill	2,17	,711	1194

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I know more about the internet than my parents	51,01	26,246	,274	,111	,776
ICT enables me to finish better my school project and other learning activities	49,67	28,708	,465	,294	,742
There are lots of things on the internet that are good for youth of my age	49,75	28,495	,512	,352	,739
I am more motivated to learn with ICT	50,30	28,410	,362	,242	,749
I find it easy to find a website I have visited before	50,10	27,769	,481	,297	,738
Internet allowed me to explore idea for my creative hobbies (e.g. create start-up, search design for my cloth, etc.)	50,06	27,908	,434	,256	,742
I did not just share every information I got from SNS to others	50,35	27,563	,410	,203	,744
I always rechecked someone's profile who propose to be my "friend" in SNS	49,91	28,367	,380	,209	,747
I did not just copy and paste article I need to my school assignment	50,37	28,459	,328	,144	,752
ICT helps me keeping good relationship with my friends and/or my teachers	50,04	28,413	,400	,190	,745
I tend to be careful to post comment in SNS	49,65	29,139	,370	,287	,749
I did much of consideration if someone I know at SNS invited to meet	49,47	28,871	,348	,237	,750
I will compare different websites to decide whether an information is true	49,72	28,885	,393	,235	,747
Total digital skill	51,85	29,117	,341	,147	,751

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
54,02	32,242	5,678	14

5. Cyberbullying experiences

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,793	,794	18

Item Statistics

	Mean	Std. Deviation	N
Experience as a victim of physical bullying	2,3798	1,27377	366
Experience as a victim of non-physical bullying	3,3689	1,40176	366
Experience as a victim of cyberbullying	3,0628	1,24477	366
Cyberbullying victim activities	1,1393	,37706	366
Total media used to victimized	1,1557	,37789	366
Feel depressed	3,0902	1,32626	366
Feel anxious	3,1749	1,23733	366
Worried something worse will be happened	3,3251	1,40479	366
Afraid of meet with perpetrator	2,7705	1,36163	366
Feel angry	3,5984	1,41804	366
Feel sad	3,1148	1,38799	366
Coping last victimized cyberbullying	1,2240	,47291	366
Coping next victimized cyberbullying	1,2869	,54112	366
Experience as a perpetrator of physical bullying	2,4727	1,39787	366
Experience as a perpetrator of non-physical bullying	3,1885	1,39076	366
Experience as a perpetrator cyberbullying	2,9945	1,19587	366
Cyberbullying perpetrator activities	1,0328	,21963	366
Total media used to bully	1,0710	1,03388	366

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Experience as a victim of physical bullying	41,0710	83,096	,365	,413	,784
Experience as a victim of non-physical bullying	40,0820	80,969	,407	,434	,781
Experience as a victim of cyberbullying	40,3880	83,718	,348	,428	,785
Cyberbullying victim activities	42,3115	91,300	,243	,355	,792
Total media used to victimized	42,2951	91,381	,231	,333	,792
Feel depressed	40,3607	77,941	,576	,695	,767
Feel anxious	40,2760	78,978	,577	,740	,768
Worried something worse will be happened	40,1257	77,546	,553	,695	,769
Afraid of meet with perpetrator	40,6803	80,098	,461	,387	,776
Feel angry	39,8525	79,227	,474	,435	,775
Feel sad	40,3361	79,029	,496	,577	,773
Coping last victimized cyberbullying	42,2268	91,442	,169	,466	,793
Coping next victimized cyberbullying	42,1639	90,965	,188	,474	,792
Experience as a perpetrator of physical bullying	40,9781	84,805	,250	,420	,793
Experience as a perpetrator of non-physical bullying	40,2623	81,947	,370	,525	,784
Experience as a perpetrator cyberbullying	40,4563	84,024	,353	,468	,784
Cyberbullying perpetrator activities	42,4180	92,074	,255	,333	,793
Total media used to bully	42,3798	86,028	,318	,419	,786

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
43,4508	93,196	9,65382	18

6. Social mediation

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,932	,928	46

Item Statistics

	Mean	Std. Deviation	N
How much do you think your parent knows about what you do on the internet?	3,96	1,231	1194
Would you like your parent to take more or less interest in what you do on the internet?	4,40	1,255	1194
Talk to you about what you do on the internet	3,13	1,079	1194
Sit with you while you uses the internet (watching what you are doing but not really joining in)	2,73	1,074	1194
Stay nearby when you uses the internet	3,01	1,077	1194
Encourage you to explore and learn things on the internet on your own	2,58	1,131	1194
Do shared activities together with you on the internet (e.g. give comment each other in FB/WhatsApp/BBM, etc.)	2,75	1,326	1194
Use instant messaging (e.g. BBM, WhatsApp, Line, etc.)	2,23	,626	1194
Download music or films on the internet	2,42	,779	1194
Watch video clips on the internet (e.g. on YouTube, Vimeo, etc.)	2,52	,863	1194
Have your own social networking profile (e.g. FB, Path, LinkedIn, etc.)	2,29	,698	1194
Give out personal information to others on the internet (e.g. full name, address or phone number, etc.)	2,59	1,215	1194
Upload photos, videos or music to share with others	2,61	1,013	1194
Download free apps	2,27	,665	1194
Download paid apps	2,67	1,129	1194
Share your geographical actual location (using Facebook, Foursquare, etc.)	2,55	,994	1194
Use a webcam	2,63	,869	1194
Helped you when something is difficult to do or to find on the internet	2,84	1,300	1194
Explain why some websites are good or bad	3,10	1,301	1194
Suggested ways to use the internet safely	3,12	1,288	1194
Suggested ways to behave towards other people online	3,45	1,229	1194
Helped you in the past when something has bothred you on the internet	2,73	1,334	1194
Talked to you about what you would do if something on the internet ever bother you	2,78	1,341	1194
Curious to know which website you visited?	2,22	1,193	1194
Curious to know the messages in your email or instant messaging account?	2,20	1,207	1194
Curious to know your profile on a social network sites or online community?	2,56	1,260	1194
Curious to know whom become your ^friend^ in social network sites or instant messaging?	2,41	1,243	1194
Limit the time you spend on the internet?	2,77	1,288	1194

Curious to know which video you have watched in Youtube (or any other similar websites) ?	2,29	1,205	1194
Do you thing that your parents do relating to how you use the internet help to make your internet experience better?	3,19	,879	1194
Do you thing that your parents do relating to how you use the internet limit what you can do on the internet?	2,37	1,359	1194
Helped you when something is difficult to do or to find on the internet	3,61	,967	1194
Explain why some websites are good or bad	2,87	1,142	1194
Suggested ways to use the internet safely	2,94	1,147	1194
Suggested ways to behave towards other people online	2,92	1,174	1194
Helped you in the past when something has bothred you on the internet	3,07	1,162	1194
Talked to you about what you would do if something on the internet ever bother you	2,98	1,186	1194
Suggest Internet Safe to Friends	3,01	,990	1194
Helped you when something is difficult to do or to find on the internet	3,03	1,171	1194
Explain why some websites are good or bad	3,30	1,118	1194
Suggested ways to use the internet safely	3,30	1,111	1194
Suggested ways to behave towards other people online	3,29	1,123	1194
Helped you in the past when something has bothred you on the internet	2,66	1,222	1194
Talked to you about what you would do if something on the internet ever bother you	2,69	1,213	1194
Made a rule about using internet in school	3,29	1,221	1194
Talked to you about smarthphone usage's rule in school	3,60	1,177	1194

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
How much do you think your parent knows about what you do on the internet?	127,91	640,498	,427	,381	,930
Would you like your parent to take more or less interest in what you do on the internet?	127,47	642,479	,386	,283	,931
Talk to you about what you do on the internet	128,73	638,709	,527	,471	,930
Sit with you while you uses the internet (watching what you are doing but not really joining in)	129,14	638,354	,536	,584	,930
Stay nearby when you uses the internet	128,86	645,116	,408	,489	,931
Encourage you to explore and learn things on the internet on your own	129,28	646,047	,370	,298	,931

Do shared activities together with you on the internet (e.g. give comment each other in FB/WhatsApp/BBM, etc.)	129,12	644,681	,329	,268	,931
Use instant messaging (e.g. BBM, WhatsApp, Line, etc.)	129,64	662,841	,167	,362	,932
Download music or films on the internet	129,45	658,927	,227	,408	,932
Watch video clips on the internet (e.g. on YouTube, Vimeo, etc.)	129,35	654,760	,297	,442	,931
Have your own social networking profile (e.g. FB, Path, LinkedIn, etc.)	129,57	662,095	,168	,358	,932
Give out personal information to others on the internet (e.g. full name, address or phone number, etc.)	129,28	660,579	,105	,175	,933
Upload photos, videos or music to share with others	129,26	658,301	,179	,225	,932
Download free apps	129,60	661,233	,203	,374	,932
Download paid apps	129,20	663,528	,065	,094	,933
Share your geographical actual location (using Facebook, Foursquare, etc.)	129,32	661,268	,124	,194	,933
Use a webcam	129,24	662,150	,128	,181	,932
Helped you when something is difficult to do or to find on the internet	129,03	629,789	,569	,500	,929
Explain why some websites are good or bad	128,77	624,197	,657	,669	,928
Suggested ways to use the internet safely	128,75	623,486	,676	,710	,928
Suggested ways to behave towards other people online	128,42	626,899	,653	,660	,928
Helped you in the past when something has bothred you on the internet	129,14	620,746	,693	,760	,928
Talked to you about what you would do if something on the internet ever bother you	129,09	622,060	,669	,736	,928
Curious to know which website you visited?	129,65	630,215	,617	,696	,929
Curious to know the messages in your email or instant messaging account?	129,66	631,036	,595	,666	,929
Curious to know your profile on a social network sites or online community?	129,31	628,243	,614	,685	,929
Curious to know whom become your ^friend^ in social network sites or instant messaging?	129,46	629,223	,607	,670	,929
Limit the time you spend on the internet?	129,10	635,486	,485	,386	,930
Curious to know which video you have watched in Youtube (or any other similar websites) ?	129,58	630,516	,606	,616	,929
Do you thing that your parents do relating to how you use the internet help to make your internet experience better?	128,68	644,918	,513	,427	,930
Do you thing that your parents do relating to how you use the internet limit what you can do on the internet?	129,50	654,544	,176	,157	,933
Helped you when something is difficult to do or to find on the internet	128,26	645,535	,451	,472	,930
Explain why some websites are good or bad	128,99	634,324	,574	,688	,929
Suggested ways to use the internet safely	128,93	632,724	,599	,754	,929
Suggested ways to behave towards other people online	128,95	632,684	,585	,715	,929

Helped you in the past when something has bothred you on the internet	128,80	635,425	,543	,745	,929
Talked to you about what you would do if something on the internet ever bother you	128,89	634,200	,552	,748	,929
Suggest Internet Safe to Friends	128,86	644,375	,463	,336	,930
Helped you when something is difficult to do or to find on the internet	128,84	633,652	,569	,596	,929
Explain why some websites are good or bad	128,57	634,911	,576	,784	,929
Suggested ways to use the internet safely	128,57	634,331	,590	,835	,929
Suggested ways to behave towards other people online	128,58	634,596	,579	,771	,929
Helped you in the past when something has bothred you on the internet	129,21	631,478	,580	,805	,929
Talked to you about what you would do if something on the internet ever bother you	129,18	631,236	,589	,807	,929
Made a rule about using internet in school	128,58	639,100	,454	,548	,930
Talked to you about smarthphone usage's rule in school	128,27	646,703	,343	,486	,931

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
131,87	668,611	25,858	46

Appendix I

Variable linearity test

1. Digital literacy ⇒ privacy practices in SNS

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Privacy practice * Digital literacy	1167	97,7%	27	2,3%	1194	100,0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Privacy practice * Digital literacy	Between Groups	(Combined)	1516,704	31	48,926	1,541	,030
		Linearity	142,166	1	142,166	4,479	,035
		Deviation from Linearity	1374,537	30	45,818	1,443	,058
	Within Groups		36027,900	1135	31,743		
	Total		37544,603	1166			

2. Privacy practices in SNS ⇒ cyberbullying experiences

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Cyberbullying experiences * Privacy practice	1167	97,7%	27	2,3%	1194	100,0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Cyberbullying experiences * Privacy practice	Between Groups	(Combined)	13669,768	30	455,659	1,564	,028
		Linearity	6150,955	1	6150,955	21,114	,000
		Deviation from Linearity	7518,813	29	259,269	,890	,635
	Within Groups		330942,044	1136	291,322		
	Total		344611,811	1166			

3. Internet access, internet use ⇒ digital literacy

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Digital literacy * Internet access	1194	100,0%	0	0,0%	1194	100,0%
Digital literacy * Internet use	1194	100,0%	0	0,0%	1194	100,0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Digital literacy * Internet access	Between Groups	(Combined)	2467,553	5	493,511	16,287	,000
		Linearity	2424,963	1	2424,963	80,030	,000
		Deviation from Linearity	42,590	4	10,647	,351	,843
	Within Groups		35997,078	1188	30,301		
	Total		38464,631	1193			

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Digital literacy * Internet use	Between Groups	(Combined)	7373,432	80	92,168	3,299	,000
		Linearity	3560,561	1	3560,561	127,461	,000
		Deviation from Linearity	3812,871	79	48,264	1,728	,000
	Within Groups		31091,199	1113	27,935		
	Total		38464,631	1193			

Appendix J

Tables of hypotheses testing results

4.8.1. Male students accessed the internet higher than female students.

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Internet access	Female	412	3.89	1.011	.050
	Male	412	4.05	1.116	.055

Independent Sample Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Internet access	Equal variances assumed	4.028	.045	-2.159	822	.031	-.160	.074	-.306	-.015
	Equal variances not assumed			-2.159	814.094	.031	-.160	.074	-.306	-.015

4.8.2. Female students are more active than their male peers in using the internet.

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Internet use	Female	412	76.00	13.021	.642
	Male	412	80.72	14.089	.694

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Internet use	Equal variances assumed	4.263	.039	-4.997	822	.000	-4.723	.945	-6.579	-2.868
	Equal variances not assumed			-4.997	816.943	.000	-4.723	.945	-6.579	-2.868

4.8.3. Both students' public and private schools have similarity in internet access.

Group Statistics

	Type of school	N	Mean	Std. Deviation	Std. Error Mean
Internet access	Public school	522	4.00	1.048	.046
	Private school	522	3.98	1.116	.049

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Internet access	Equal variances assumed	2,058	.152	.372	1042	.710	.025	.067	-.107	.156
	Equal variances not assumed			.372	1037.905	.710	.025	.067	-.107	.156

4.8.4. Private school students use internet higher than their colleagues from public school.

Group Statistics

	Type of school	N	Mean	Std. Deviation	Std. Error Mean
Internet use	Public school	522	76.76	12.959	.567
	Private school	522	78.50	13.546	.593

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Internet use	Equal variances assumed	.823	.364	-2.113	1042	.035	-1.734	.821	-3.344	-.124
	Equal variances not assumed			-2.113	1039.965	.035	-1.734	.821	-3.344	-.124

4.8.5. The higher the SES level the greater the possibility that students could access and use the internet.

Table

Summary of Correlations between Variables

		1	2	3	4	5	6	7	8	9	10	11	12
1	Gender												
2	Age	-.194**											
3	School's grade	-.262**	.716**										
4	Type of school	-.043	-.119**	-.100**									
5	Year of Intern. access	-.035	.484**	.402**	-.092**								
6	Internet access	.047	.087**	.050	-.005	.137**							
7	Internet use	.172**	.100**	.062*	.064*	.166**	.281**						
8	Privacy practices	-.030	.105**	.070*	.020	.033	.075*	.312**					
9	Digital literacy	-.071**	.214**	.230**	-.093**	.217**	.251**	.304**	.062*				
10	Cyberbullying expcs.	.133**	-.139**	-.181**	.080**	-.023	.050	.178**	.134**	-.074*			
11	Social mediation	-.045	-.191**	-.120**	.059*	-.122**	.024	.078**	.083**	.013	.032		
12	SES	.016	.015	.120**	-.001	.128**	.068*	.139**	.053	.129**	-.004	.065*	

*p<.05
**p<.01

4.8.6. Both Internet access and internet could explain variance of digital literacy.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.350[a]	.122	.121	5.324

a. Predictors: (Constant), Internet use, Internet access

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4705.949	2	2352.975	83.013	.000[b]
	Residual	33758.682	1191	28.345		
	Total	38464.631	1193			

a. Dependent Variable: Digital literacy
b. Predictors: (Constant), Internet use, Internet access

4.8.7. Senior high school students are more confident with their digital literacy than junior high school students.

Group Statistics

	school grade	N	Mean	Std. Deviation	Std. Error Mean
Digital literacy	Junior High school	539	52.58	5.958	.257
	Senior High school	539	55.34	4.977	.214

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Digital literacy	Equal variances assumed	13.289	.000	-8.267	1076	.000	-2.764	.334	-3.421	-2.108

	Equal variances not assumed			-8.267	1042.974	.000	-2.764	.334	-3.421	-2.108

4.8.8. Both internet access and internet use could explain variance of privacy practices in SNSs.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.313[a]	.098	.096	5.395

a. Predictors: (Constant), Internet use, Internet access

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3669.329	2	1834.665	63.042	.000[b]
	Residual	33875.274	1164	29.102		
	Total	37544.603	1166			

a. Dependent Variable: Privacy practices
b. Predictors: (Constant), Internet use, Internet access

4.8.9. Digital literacy helps students remain careful in revealing information about themselves in SNSs.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.062[a]	.004	.003	5.666

a. Predictors: (Constant), Digital literacy

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	142.166	1	142.166	4.428	.036[b]
	Residual	37402.437	1165	32.105		
	Total	37544.603	1166			

a. Dependent Variable: Privacy practices
b. Predictors: (Constant), Digital literacy

4.8.10. Students' privacy practices in SNSs enlarge likelihood to get cyberbullying experiences.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.134[a]	.018	.017	17.045	1.873

a. Predictors: (Constant), Privacy practice
b. Dependent Variable: Cyberbullying experiences

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6150.955	1	6150.955	21.172	.000[b]
	Residual	338460.857	1165	290.524		
	Total	344611.811	1166			

a. Dependent Variable: Cyberbullying experiences
b. Predictors: (Constant), Privacy practices

4.8.11. Digital literacy increased the proportion of cyberbullying experiences' variance compared with internet access and internet use.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.178[a]	.032	.030	16.93488
2	.225[b]	.051	.048	16.77653

a. Predictors: (Constant), Internet use, Internet access
b. Predictors: (Constant), Internet use, Internet access, Digital literacy

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11186.704	2	5593.352	19.503	.000[b]
	Residual	341566.921	1191	286.790		
	Total	352753.625	1193			
2	Regression	17825.820	3	5941.940	21.112	,000[c]
	Residual	334927.805	1190	281.452		
	Total	352753.625	1193			

a. Dependent Variable: Cyberbullying experiences
b. Predictors: (Constant), Internet use, Internet access
c. Predictors: (Constant), Internet use, Internet access, Digital literacy

4.8.12. Privacy practices increased the proportion of cyberbullying experiences' variance compared with internet access and internet use.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.186[a]	.035	.033	16.905
2	.203[b]	.041	.039	16.857

a. Predictors: (Constant), Internet use, Internet access
b. Predictors: (Constant), Internet use, Internet access, Privacy practices

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11971.517	2	5985.758	20.946	.000[b]
	Residual	332640.295	1164	285.773		
	Total	344611.811	1166			
2	Regression	14143.348	3	4714.449	16.591	.000[c]
	Residual	330468.463	1163	284.152		
	Total	344611.811	1166			

a. Dependent Variable: Cyberbullying experiences
b. Predictors: (Constant), Internet use, Internet access
c. Predictors: (Constant), Internet use, Internet access, Privacy practices

4.8.13. Digital literacy and privacy practices in SNSs could explain simultaneously variance of cyberbullying experiences.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.160[a]	.025	.024	16.986

a. Predictors: (Constant), Digital literacy, Privacy practices

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8772.295	2	4386.147	15.202	.000[b]
	Residual	335839.517	1164	288.522		
	Total	344611.811	1166			

a. Dependent Variable: Cyberbullying experiences
b. Predictors: (Constant), Digital literacy, Privacy practices

4.8.14. Non-victims of cyberbullying have better digital literacy than victims of cyberbullying.

Group Statistics

YesNo cyberbullying victim		N	Mean	Std. Deviation	Std. Error Mean
Digital literacy	No	579	54.35	5.516	.229
	Yes	579	53.67	5.759	.239

Independent Sample Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Digital literacy	Equal variances assumed	.752	.386	2.032	1156	.042	.674	.331	.023	1.324
	Equal variances not assumed			2.032	1153.861	.042	.674	.331	.023	1.324

4.8.15. Non-perpetrators of cyberbullying have better digital literacy than perpetrators of cyberbullying.

Group Statistics

YesNo cyberbullying perpetrator		N	Mean	Std. Deviation	Std. Error Mean
Digital literacy	No	478	54.37	5.751	.263
	Yes	478	53.40	5.712	.261

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Digital literacy	Equal variances assumed	.082	.775	2.635	954	.009	.977	.371	.249	1.705
	Equal variances not assumed			2.635	953.956	.009	.977	.371	.249	1.705

4.8.16. Victims of cyberbullying have higher privacy practices on SNS than non-victims of cyberbullying.

Group Statistics

YesNo cyberbullying victim		N	Mean	Std. Deviation	Std. Error Mean
Privacy practice	No	565	28.04	6.106	.257
	Yes	565	29.45	5.138	.216

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference

									Lower	Upper
Privacy practice	Equal variances assumed	18.178	.000	-4.217	1128	.000	-1.416	.336	-2.075	-.757
	Equal variances not assumed			-4.217	1095.961	.000	-1.416	.336	-2.075	-.757

4.8.17. Perpetrators of cyberbullying have higher privacy practices on SNS than non-perpetrators of cyberbullying.

Group Statistics

YesNo cyberbullying perpetrator		N	Mean	Std. Deviation	Std. Error Mean
Privacy practice	No	470	28.40	5.678	.262
	Yes	470	29.50	5.249	.242

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Privacy practice	Equal variances assumed	3.304	.069	-3.084	938	.002	-1.100	.357	-1.800	-.400
	Equal variances not assumed			-3.084	932.275	.002	-1.100	.357	-1.800	-.400

4.8.18. Junior high school students were more likely to be involved in cyberbullying than senior high school students.

Group Statistics

	School grade	N	Mean	Std. Deviation	Std. Error Mean
Cyberbullying experiences	Junior High school	539	28.18	17.324	.746
	Senior High school	539	22.07	16.785	.723

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Cyberbullying experiences	Equal variances assumed	.421	.517	5.880	1076	.000	6.109	1.039	4.071	8.148
	Equal variances not assumed			5.880	1074.924	.000	6.109	1.039	4.071	8.148

4.8.19. Social mediation could not explain more variance of cyberbullying experiences compared to internet access and internet use.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.178[a]	.032	.030	16.935
2	.179[b]	.032	.030	16.939

a. Predictors: (Constant), Internet use, Internet access
b. Predictors: (Constant), Internet use, Internet access, Social mediation

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11186.704	2	5593.352	19.503	.000[b]
	Residual	341566.921	1191	286.790		
	Total	352753,625	1193			
2	Regression	11308.907	3	3769.636	13.138	.000[c]
	Residual	341444.718	1190	286.928		
	Total	352753.625	1193			

a. Dependent Variable: Cyberbullying experiences
b. Predictors: (Constant), Internet use, Internet access
c. Predictors: (Constant), Internet use, Internet access, Social mediation

4.8.20. The significant intercorrelations between victims and perpetrators of bullying.

Table 4.56

Correlation between Bullying Victimhood and Perpetration

		1	2	3	4	5	6
1	Victim of physical bullying						
2	Victim of non-physical bullying	.471**					
3	Victim of cyberbullying	.409**	.509**				
4	Perpetrator of physical bullying	.581**	.392**	.338**			
5	Perpetrator of non-physical bull.	.388**	.497**	.380**	.534**		
6	Perpetrator of cyberbullying	.309**	.338**	.472**	.413**	.558**	

*p<.01