UNIVERSITI PUTRA MALAYSIA

AN INTEGRATED MODEL TO REDUCE ONLINE RISKS FOR CHILDREN

MISHA TEIMOURI

FBMK 2015 47

**AN INTEGRATED MODEL TO REDUCE ONLINE RISKS
FOR CHILDREN**

By

MISHA TEIMOURI

**Thesis Submitted to the School of Graduate Studies, Universiti Putra
Malaysia, in Fulfillment of the Requirement for the Degree of Doctor of
Philosophy**

July 2015
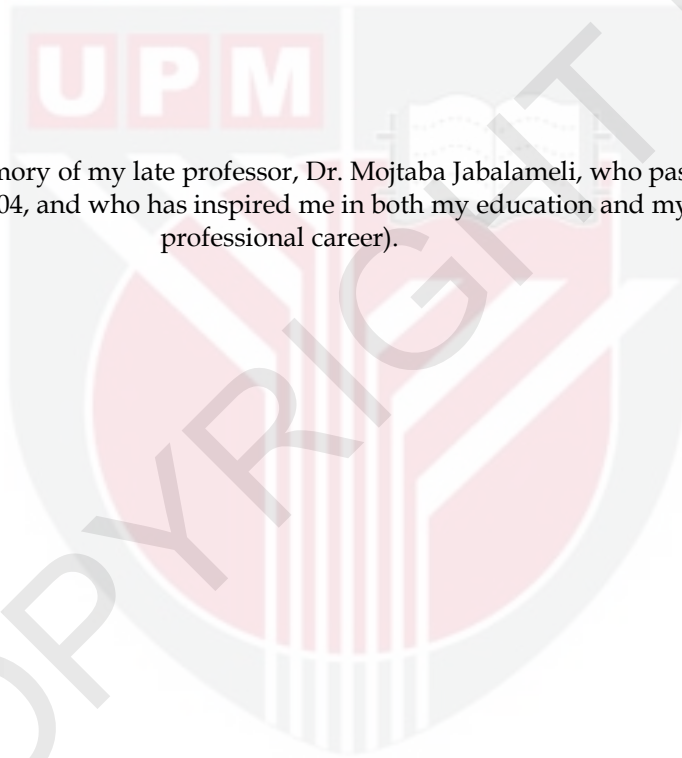
i

DEDICATION

In the name of God who enables me to learn, I dedicate this thesis to my parents, whom I live for, and to my dear sisters, Mitra and Mahshad, who have supported me through the hardest of times.

(In loving memory of my late professor, Dr. Mojtaba Jabalameli, who passed away in 2004, and who has inspired me in both my education and my professional career).

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

AN INTEGRATED MODEL TO REDUCE ONLINE RISKS FOR CHILDREN

By

MISHA TEIMOURI

July 2015

Chair: Professor Md. Salleh bin Hj. Hassan, PhD
Faculty: Modern Languages and Communication

As Malaysian children continue to spend a lot of time online, they are exposed to unknown undesirable experiences. Testing an integrated model of online protection behaviour using three theoretical approaches, namely the parental mediation model (Livingstone, Haddon & Görzig, 2012); protection motivation theory (Rogers, 1975); and the health belief model (Janz & Becker, 1984; Glanz & Rimer, 2005), this study aims to suggest a way to reduce online risks for children. Online risk to children is measured using a 39-item scale adapted from two national studies in Europe (EU Kids Online; 2006–9) and the US [(Youth Internet Safety Survey-1 (YISS-1), 2000; YISS-2, 2005; YISS-3, 2010)]. A quantitative survey was conducted among 420 school children and one of their respective parents/guardians; structural equation modeling-partial least squares (SEM-PLS) was applied using SmartPLS (Version 3.2.1) to test the proposed model. The results of this study suggest that children with higher perception of the severity of risks, higher self-efficacy, and who are mediated to a higher degree by their parents, are less exposed to the risks they are encounter online, and that children with higher digital literacy are also more exposed to those risks. Direct-indirect mediation analyses reveal that those children with a higher perception of the severity of online risks are less at risk if they have higher digital literacy and practice more privacy protection.

This study found that the risks categorized in European countries and the US are less common in Malaysia. As predicted, parental mediation strategies were a significant factor in reducing online risks for children as well as children's Internet self- efficacy. Parents are therefore advised to become more engaged with their children's Internet use since this study found that the parental mediation reduces the online risk for children. Children need to be advised to improve their Internet self-efficacy and how best to cope with risky situations online. They must be conscious of the possible risks to them and learn how to be

safe while using Internet. Hence, as this study suggested if a child's online protection behaviour occurs in conjunction with parental mediation, children in the Malaysian context would encounter fewer online risks.

The results offer a model of Internet risk protection that could not only be practiced by Malaysian families, but also be applied by society, policymakers, and practitioners. There are a number of limitations to this study, such as a lack of definition of online risks and topic sensitivity, both in the Malaysian context. Overall, the modified model proposed in this study was confirmed. However, further investigation is required in order to classify online risks to children and offer more solutions to reducing the online risks faced by Malaysian children.

ii

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

SATU MODEL BERSEPADU BAGI MENGURANGKAN RISIKO ATAS TALIAN TERHADAP KANAK-KANAK

Oleh

MISHA TEIMOURI

Julai 2015

Pengerusi: Professor Md. Salleh bin Hj. Hassan, PhD
Fakulti: Bahasa Moden dan Komunikasi

Kanak-kanak di Malaysia banyak menghabiskan masa mereka menggunakan Internet. Perbuatan ini menyebabkan mereka terdedah kepada perkara-perkara yang tidak diingini dan tidak memberi manfaat. Kajian ini dilakukan bagi mendapatkan satu cara berkesan untuk mengurangkan risiko atas talian terhadap kanak-kanak dengan mengaplikasikan model bersepadu "Tingkahlaku Perlindungan atas talian" melalui tiga pendekatan teori, iaitu Model Mediasi Ibu bapa (Livingstone, Haddon & Görzig, 2012); Teori "Protection Motivation" (Rogers, 1975); dan Model "Health Belief" (Janz & Becker, 1984; Glanz & Rimer, 2005). Risiko atas talian untuk kanak-kanak diukur menggunakan skala 39-item yang diadaptasikan daripada dua kajian: iaitu di Eropah oleh "EU Kids Online"pada tahun 2006-2009 dan di Amerika Syarikat oleh "Youth Internet Safety Survey" (YISS) pada tahun 2000, 2005 dan 2010. Satu kajian kuantitatif telah dijalankan di kalangan 420 kanak-kanak sekolah dan salah seorang daripada ibu bapa/penjaga mereka; "Structural Equation Modeling-Partial Least Squares" (SEM-PLS) telah digunakan (SmartPLS versi 3.1.7) untuk menguji model yang dicadangkan. Hasil kajian ini mendapati kanak-kanak yang mempunyai persepsi yang tinggi terhadap bahaya risiko atas talian, mempunyai jatidiri yang tinggi, dan menerima mediasi daripada ibu bapa adalah kurang terdedah kepada risiko atas talian. Kajian ini juga mendapati kanak-kanak yang tinggi literasi digitalnya lebih terdedah kepada risiko atas talian. Analisis mediasi secara langsung dan tidak langsung kajian menunjukkan bahawa kanak-kanak dengan persepsi yang tinggi terhadap bahaya risiko atas talian adalah kurang berisiko jika mereka mempunyai literasi digital yang tinggi dan mengamalkan lebih perlindungan privasi.

Hasil kajian ini juga mendapati risiko atas talian yang dikategorikan di negara-negara Eropah dan Amerika Syarikat kurang berlaku di Malaysia. Seperti ramalan, strategi-strategi mediasi ibu bapa merupakan faktor penting bagi mengurangkan risiko atas talian untuk kanak-kanak serta meningkatkan keberkesanan jatidiri terhadap Internet oleh kanak-kanak. Oleh itu, ibu bapa

dinasihatkan untuk lebih melibatkan diri dalam penggunaan Internet anak-anak mereka. Kanak-kanak perlukan nasihat ibubapa untuk meningkatkan keberkesanan jatidiri mereka terhadap Internet dan bagaimana menangani risiko atas talian. Mereka harus sedar akan risiko yang bakal dihadapi dan belajar cara menggunakan Internet secara selamat. Oleh itu, dalam konteks Malaysia, kajian ini mencadangkan jika perlindungan atas talian terhadap kanak-kanak dilaksanakan melalui kewujudan mediasi ibu bapa, kanak-kanak akan kurang menghadapi risiko atas talian.

Hasil kajian ini menyediakan satu model perlindungan risiko Internet yang tidak hanya boleh diamalkan oleh keluarga di Malaysia, tetapi juga digunakan oleh masyarakat, pembuat dasar dan pengamal media baru ini. Terdapat beberapa limitasi dalam kajian ini dari konteks Malaysia, seperti kekurangan definisi risiko atas talian dan mengenai perkara-perkara sensitif tentang risiko atas talian. Secara keseluruhannya, kajian ini telah mengesahkan model yang dicadangkan. Walau bagaimanapun, kajian lanjut perlu dilakukan untuk mengklasifikasikan risiko atas talian untuk kanak-kanak dan menawarkan lebih banyak penyelesaian untuk mengurangkan risiko atas talian yang dihadapi oleh kanak-kanak Malaysia.

iv

ACKNOWLEDGEMENTS

I would like extend my sincere appreciation and gratitude to my dear supervisor, Prof. Salleh Hassan, who has always been positive, supportive, encouraging, and humble. To work with him has been an unforgettable experience, with heaps of fun and excitement. I admire him: for his support with care and promptness; for his patient and encouragement in times of difficulties; for listening my ideas and discussions; for his assistance and guidance; for his kindness and generosity. He made us feel a friend, which I appreciate from my heart.

I would also like to express gratitude to Dr. Jusang Bolong and Dr. Nor Azura Adzharuddin for all of their assistance, guidance, and kindness. My sincere thanks also go to Professor Ezhar Tamam for his invaluable advice. May Allah bless them all.

Special thanks goes to my Malaysian best friend, Azlina Daud; I cannot thank her enough for being always there during the stressful moments. It has been an extraordinary journey to work with her as a friend. I would also like to extend my deepest gratitude to my dear friends Somayeh Naeimi, Serina Yussof, and Elahe Taheri; it has been my privilege to work closely with them as a team and I am very proud of what we have achieved together. I would never forget all beautiful, fun and excitement moments I shared with them. I am indebted to my friend Reza Jafari Aryan for making the time working on my Ph.D. a memorable experience.

My sincere thanks also go to Jinny Hayman, a specialist in editing academic work from U.K for her great job in proofreading my dissertation.

I certify that a Thesis Examination Committee has met on (July 15, 2015) to conduct the final examination of Misha Teimouri on her thesis entitled "An Integrated Model to Reduce Online Risks for Children" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

Members of the Thesis Examination Committee were as follows:

Zulhamri Abdullah, PhD
Associate Professor
Faculty of Modern Languages and Communication
Universiti Putra Malaysia
(Chairman)

Mohd Nizam Osman, PhD
Faculty of Modern Languages and Communication
Universiti Putra Malaysia
(Internal Examiner)

Ezhar Tamam, PhD
Professor
Faculty of Modern Languages and Communication
Universiti Putra Malaysia
(Internal Examiner)

Ang Peng Hwa, PhD
Professor
College of Humanities, Arts, & Social Sciences
Nanyang Technological University, Singapore
(External Examiner)

<div style="text-align: right;">

ZULKARNAIN ZAINAL, PhD
Professor and Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

</div>

vi

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Md Salleh bin Hj Hassan, PhD
Professor
Faculty of Modern Languages and Communication
Universiti Putra Malaysia
(Chairman)

Jusang bin Bolong, PhD
Associate Professor
Faculty of Modern Languages and Communication
Universiti Putra Malaysia
(Member)

Nor Azura binti Adzharuddin, PhD
Senior Lecturer
Faculty of Modern Languages and Communication
Universiti Putra Malaysia
(Member)

BUJANG BIN KIM HUAT, PhD
Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

vii

DECLARATION BY GRADUATE STUDENT

I hereby confirm that:
- this thesis is my original work;
- quotations, illustrations and citations have been duly referenced
- this thesis has not been submitted previously or concurrently for any other degree at any other institutions;
- intellectual property from the thesis and copyright of thesis are fully-owned by Universiti Putra Malaysia, as according to the Universiti Putra Malaysia (Research) Rules 2012;
- written permission must be obtained from supervisor and the office of Deputy Vice-Chancellor (Research and Innovation) before thesis is published (in the form of written, printed or in electronic form) including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports, lecture notes, learning modules or any other materials as stated in the Universiti Putra Malaysia (Research) Rules 2012;
- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld as according to the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software.

Signature: Date: July 2015

Misha Teimouri GS31727

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CR	Construct (composite) reliability
HBM	Health Belief Model
MCMC	Malaysian Communication and Multimedia Commission
PLS	Partial Least Squares
PMM	Parental Mediation Model
PMT	Protection Motivation Theory
R2	Coefficient of Determination
SEM	Structural Equation Modeling
VAF	Variance Accounted For
VIF	Variance Inflation Factor
YISS	Youth Internet Safety Survey

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

Until relatively recently, television and film was the only audio-visual medium to which most children were exposed (Clark, 2011). The risks associated with children's television viewing were primarily limited to their being exposed to sexual and violent materials, the nature of which were known and easy to control. Today, children are surrounded by a variety of digital media, which exposes them to enormous risks that have not yet been fully identified or quantified. Within the academic literature, although studies defining the risks of online activity for children have risen substantively, it is difficult to get a clear picture of online risk and harm (Slavtcheva-Petkova, Nash, & Bulger, 2015).

From media studies, much research proposes the necessity of parental assistance in guiding their children's media usage in the prevention of the negative experiences (Clark, 2011; Nikken & Jansz, 2011). In prior studies, television was the preferred topic of discussion and investigation. Newer studies still consider traditional parental mediation styles to be applicable for Internet use. However, given that children tend to use the Internet alone (Buckingham & Willett, 2013), parental mediation has been more challenging, since parents are unable to constantly monitor, control, and supervise children's online activities. In addition to parental involvement, it is necessary for children to be aware of the risks they may be exposed to while they are using the Internet, and how to protect themselves when they are faced with those risks.

Although there is not a "golden key" to keeping children safe online, especially given that the online landscape is rapidly evolving, it is possible to diminish unpleasant consequences with educational strategies, parental involvement, and teaching of self-protection techniques. While no theory yet specifies the determinants of online safety, the researcher has borrowed constructs from theories that focus comprehensively on health behaviour in order to generate a model promoting safe online behaviour.

1.1   Problem Statement

Nowadays, the Internet is gradually becoming an essential part of young users' lives in Malaysia. While there are various benefits of using the Internet, there is also an increasing number of negative aspects to it, such as exposure to pornography, inappropriate and undesirable conduct and content (Liau, Khoo & Ang, 2008). Despite the high possibility of online risks in Malaysia, there has been little research into the risks associated with Malaysian children's online use (Soh Chin Hooi, 2010; Baboo, Pandian, Prasad, & Rao, 2013). A Malaysian

1

national survey shows that 83% of school children are exposed to different types of online risks; more specifically, 70% of children had been exposed to online harassment, and 64% had received/send inappropriate message/image online (DiGi CyberSAFE, 2014). Meanwhile, only one-thirds of them take a high level of online safety action, and most of them (70%) were not concerned with the invasion of their privacy. In the meantime, 70% of parents still believe that their children are safe when they are connected to the Internet (DiGi CyberSAFE, 2014).

Children's Internet usage is shaped by a multitude of factors, including social mediation factors (actions of teachers, parents, sibling, and peers), in which parents play a vital role (Livingstone et al., 2012). However, in practice, it is difficult for parents to mediate their children's online activities due the individualization of Internet usage (Lee, 2012). A report by the International Telecommunication Union (ITU, 2009) shows that there is an alarming gap between what parents think and children know; even though 92% of parents are confident to establish rules for their children's online activity, only 66% of children think the same. While most parents consider the Internet as a beneficial sources for children to facilitate their learning and creativity (Livingstone & Bober, 2009), While 90% of children are exposed to negative experiences online, only 40% of parents are aware of what their children are doing or what they are accessing during the time they spend online (Ismail, 2011).

Parents' involvement in monitoring their child's Internet safety use is very important (Chhachhar, Qureshi, Maher, & Ahmed, 2014). Malaysian DIGI Cyber-Safe revealed that while 40% of parents have never taught their children how to practice safety, 27% of parents have talked to their children about online safe practice, ("Internet Safety for School Children," 2013). Furthermore, only 30% of parents monitor their children's Internet use ("1-in-3 Malaysian kids victims of cyber-bullying," 2012).

Most Malaysian students are still unaware of the potentially negative use of this technology (Raman, 2011). While Lallmahamood (2008) believes that 92.4% of Malaysian adults are very concerned about privacy matters when using the Internet, younger users are not (Shafie et al., 2011). Children's awareness of the severity of the potential risks associated with Internet use, as well as their belief that they are themselves able to perform risk-reducing behaviours, will help them to protect themselves from online risks (Youn, 2009). Empirical research on the effects of protection motivation constructs (e.g. self-efficacy, perceived severity, and susceptibility) and safety behaviour to reduce risks is inconclusive. While it was found that self-efficacy associated with protective behaviour by some researchers (Chai, Bagchi-Sen, Morrell, Rao, & Upadhyaya, 2009; Feng & Xie, 2014), others have found the opposite (Mohamed & Hawa, 2012).

Considering the problems outlined, along with increasing the time children spend online, they are more exposed to risks associated with the Internet. cyber-

2

related risks such as cyber-bullying, disclosure of private/personal information, visits to X-rated websites, and exposure to violent content have increased in Malaysia (Chan, 2012; Azizan, 2013). Meanwhile, little is known about how parents monitor children's online activities to avert negative exposure. The lack of Malaysia-specific research about the online risks children's are exposed to, as well as parental monitoring of children's Internet usage, and children's online protection/self-regulation, have been detailed as a problem of the scope of this current study.

1.2   Research Questions

Based on the aforementioned issues, this study aims to address the following research questions:

1   What is the level of online risk that children are exposed to?

2   Is 'online risk' effected by 'parental mediation'; 'perceived severity of (and susceptibility to) online risk'; 'Internet self-efficacy'; 'digital literacy'; and 'online-privacy concerns'?

3   Is the relationship between 'perceived severity of (and susceptibility to) online risk' and 'online risk' mediated by 'digital literacy' and 'online privacy concerns'?

1.3   Research Objectives

The general objective of this study is to test an integrated model of online protection behaviour and parental mediation on the online risks associated with children's Internet usage.

The specific objectives are:

1   To identify the level of online risk that children are exposed to.

2   To determine the effects of 'parental mediation', 'perceived severity of (and susceptibility to) online risk', 'Internet self-efficacy', 'digital literacy', and 'online privacy concerns' on 'online risk'.

3   To determine the mediation effect of 'digital literacy' and 'online privacy concerns' on the relationship between 'perceived severity of (and susceptibility to) online risk' and 'online risk'.

3

1.4   Significance of the Study

This study contributes to the literature that examines the issues associated with Internet usage among children. It also could help to increase children's awareness of the possible threats of online activities, as well as to improve their online protection and safety skills. The study also contributes to parents to re-evaluate their mediation approaches and to comprehend the nature of new-media usage. In addition, this study will present updated data on the risk pattern of Internet usage among Malaysian children.

Furthermore, the results of the current study could also be employed in the creation of new strategies and policies around safer Internet usage among children. Since 2010, multiple events have aimed at educating Internet users about the online privacy and identity protection that have been running in Malaysia by bodies such as the Malaysian Communication and Multimedia Commission (MCMC); Cyber Security Malaysia; the Women Family and Community Development Ministry; and other stakeholders authorized to increase awareness of information security and online safety among families (e.g. Safer Internet Day (SID)[1]; Cyber Safe Programs; Cyber 999 Help Centre; "Be Aware, Secure and Vigilant; Cyber Security Awareness Week; DiGi Cyber-safe Program; Child Online Protection Seminar) (Cyber Security Malaysia, 2011). Meanwhile, the Malaysian government is particularly concerned about the negative impacts of the Internet on children, and has already implemented actions such as censorship of Internet content, restricting and banning cybercafés, as well as using filters to block online pornography websites (Liau et al., 2008).

In terms of theoretical approaches, this study contributes to what extent the Parental Mediation Model (PMM) extends the sufficiently of the Protection Motivation Theory (PMT) and Health Belief Model (HBM) to predict reducing online risks to children. The theoretical contribution of this study is integrating PMM into PMT and HBM to promote online protection behaviour among children, since parental involvement has been found as one of the most influential factors effect children's Internet usage (Clark, 2011). Health behaviour and health promotion theories have been applied to identify factors influence individual's healthy behaviour adoption. These theories being proposed to explain the behavioural change for an individual (e.g. PMT and HBM) (Glanz & Rimer, 2005; Prentice-Dunn & Rogers, 1986; Rogers, 1975). The PMT is suggested to be one of the most representative and influential of risk learning theories, to identify how people choose to behave when faced with various threats (Lwin, Li, & Ang, 2012). Health belief model is also emphasizing the individuals' perception about the threats or an action to prevent the threats (Janz & Becker, 1984; Ronis, 1992; Rosenstock, 1974). However, this study

---

[1]http://www.saferinternetday.org/web/malaysia/home

contributes these theories needed to be integrated with parental mediation to be applicable in the case an online protection research, especially when the children are the subject of research.

This study uses instruments developed through a mix- method of quantitative and qualitative research design. However, the instruments have not been validated within Malaysian context using the quantitative method. Hence, in this study, quantitative survey used to confirm the validity of the instrument of this study.

Furthermore, previous study about online risks were used the classical measurement approaches to estimate the relationship among latent constructs. Unlike the classical measurement approaches, which measure a latent variable by effective (reflective) indicators, today's researchers deal with the latent constructs which are involved causal (formative) indicators. The application of causal indicators as formative measures has become a solution for researchers who are struggling with the implications of reflective indicators. In this study, the researcher measured online risks latent variables by formative indicators since (i) the indicators are cause of constructs, (ii) indicators are characteristic explaining construct, and (iii) indicators are not interchangeable (Hair, Hult, Ringle, & Sarstedt, 2014). For example, for measuring "personal data misuse" indicator "have you ever been hacked" cannot be changed by indicator "have you ever lost money online". Hence, this study contributes the application of Partial Least Squares to proceed the statistical analyses for this study.

This study therefore aims to identify the influence of children's self-protection techniques against online risks, in an attempt to contribute to a deeper perspective of the nature of the risks associated with Internet usage among children in Malaysia.

1.5   Scope of the Study

The scope of this thesis is limited to primary and secondary school-age children between the ages of 9 and 16 in Malaysia, Selangor and their parents/guardians. The study was limited to the one state, namely Selangor, which has the highest number of Internet users in Malaysia (Household Use of the Internet Survey 2010, MCMC). This study focuses on the parental role and children's self-protection when it comes to children's exposure to online risks. The definition of online risks is limited to Western measurements, due to the lack of Malaysia-specific research about them. Topic sensitivity, time, and budget limitations, lack of national research, and sampling complexity were some of the limitations to this study, all of which will be discussed in more detail in the final chapter.

1.6   Construct Definition

In this study, **online risk to children** is defined as a set of wanted or unwanted inappropriate activities by children (as an actor, a receiver, or a participant), which includes **(1) Unwanted exposure to pornography,** such as requests to be exposed to unwanted sexual activities/sexual talk/divulging sexual information against their will; **(2) Risky sexual online behaviour,** in which children participate in sexual behaviour online; **(3) Sexting,** which refers to sending/receiving sexual images/videos/texts online; **(4) Potentially harmful user-generated content,** where children are exposed to online violent content such as self-harm, suicide, pro-anorexia, drugs, hate/racism **(5) Personal data misuse,** whereby children's information is misused or they are a victim of Internet fraud or theft **(6) Cyber bullying,** which refers to children being the victim of aggressive behaviour in the cyberspace (Faryadi, 2011; Hasebrink, Görzig, Haddon, Kalmus, & Livingstone, 2011; Marwick, Diaz & Palfrey, 2010; Livingstone, Haddon, Görzig, & Olafsson, 2011a, 2011b; Wolak, Finkehor & Mitchell; 2008).

Parental mediation is defined as the strategy parents use to monitor, co-use, limit, and restrict their children's online activities, which include: **(1) Parental active mediation of Internet use**, whereby when the parent is present, they remain nearby and discuss the child's online activities with them; **(2) Parental active mediation of Internet safety,** which is when the parent explains about safety and suggest ways for the child to behave safely over the Internet in case of difficulty; **(3) Parental technical mediation** refers to the use of software by a parent to control or to filter a child's Internet use; **(4) Parental monitoring mediation, whereby** a parent monitors the records of the child's online activities afterwards; and **(5) Parental restrictive mediation,** which refers to a parent setting rules to control a child's Internet use of certain applications, activities, or provision of personal information.

In this study, online protection behaviour (motivation) is referring to risk perception and protection action. Risk perception is defined by two concepts: **(1) Perceived susceptibility to online risk:** Refers to a child's perception of the potentiality of harm or abuse and **(2) Perceived severity of online risk:** Refers to a child's perception of how serious an online risk and its consequences are (Glanz, Rimer 2005). Protection action is defined by three concepts: **(1) Online safety concern**: Refers to when a child knows how to protect themselves from the potential risks posed by the Internet, and has the basic knowledge and skills to protect themselves during their online activities; **(2) Internet self-efficacy:** A child's perception of how capable they are of understanding the risk caused by the Internet and their ability to take protective action against negative outcomes; and **(3) Digital literacy:** A child's knowledge about and capability of using the Internet and dealing with possible risks.

In this study, the respondents are referred to as "children", since this refers to anyone under the age of 18 (based on Convention on the Rights of the Child and Malaysia's Child Act 2001[2]). The terms "online" refers to when children are connected to the Internet from any digital devices.

1.7   Summary of Chapter One

This study was initially formed due to the researcher's interest in the negative consequences brought about by children's online activities. In the early stages, the researcher reviewed available research conducted in Malaysia regarding the risks that the Internet exposes children to. It was found that, along with increasing the time children spend online, they are more exposed to risks associated with the Internet has increased. As discussed earlier in this chapter, it is reported that cyber-related risks such as cyber-bullying, theft/fraud, disclosure of private/personal information, visits to X-rated websites, and exposure to violent content have increased in Malaysia (Chan, 2012; Azizan, 2013). Meanwhile, little is known about how parents monitor children's online activities to avert negative exposure. The lack of Malaysia-specific research about the online risks children's are exposed to, as well as parental monitoring of children's Internet usage, and children's online protection/self-regulation, have been detailed as a problem of the scope of this current study. To fill the knowledge gap regarding these issues, this study aims to test an integrated model of parental mediation and online protection behaviour in reducing online risks to children through a quantitative survey.

This study therefore uses a multi-national definition of online risks to children developed by the European Kids Online project and Youth Internet Safety Survey (US), the parental mediation model (PMM), the Protection Motivation Theory (PMT), and the Health Belief Model (HBM), developed by a group of US Public Health Service social psychologists, as the basis of an integrated model to reduce online risk to children. The model proposed for this study is based on constructs from PMT and HBM, namely perceived severity of (and susceptibility to) online risk, Internet self-efficacy, online privacy protection behaviour, and digital literacy, together with five constructs from PMM, namely parental mediation of Internet use/safety, parental technical monitoring/restrictive mediation.

---

[2] http://www.uniteagainstabuse.my/learn/facts#sthash.LizqHrb9.dpuf

REFERENCES

Amárach Consulting. (2004). *The use of new media by children, A research report*. Retrieved from http://www.internetsafety.ie/website/ois/oisweb.nsf/0/57019ADDBB A5856F802574C5004E2882/$File/am%C3%A1rach%20con.%20the%20use %20of%20new%20media%20by%20children.pdf

Aufderheide, P. (1993). *Media literacy. A report of the national leadership conference on media literacy*. Washington, DC: Aspen Inst.

Austin, E. W. (1993). Exploring the effects of active parental mediation of television content. *Journal of Broadcasting & Electronic Media, 37*(2), 147–158. doi: 10.1080/08838159309364212

Aytes, K., & Conolly, T. (2003). A research model for investigating human behaviour related to computer security. *Proceeding of the 9th Americas Conference on Information Systems. 260*, 2027–2031. Florida, USA.

Azizan, H. (2013, May 27). Do you know who your kids are talking to? *The Star Online*. Retrieved from http://www.thestar.com.my/News/Nation/2012/04/29/Do-you-know-who-your-kids-are-talking-to/

Baboo, S. S. B., Pandian, A., Prasad, N. V, & Rao, M. M. A. (2013). Young people and new media in malaysia: An analysis of social uses and practices. *Journal of Arts, Science & Commerce*, *IV*(April 2013), 50–57. Retrieved from http://www.researchersworld.com/vol4/issue2/Paper_07.pdf

Baharudin, D. F., & Zakaria, M. Z. (2009). Adolescents and Internet sex addiction. *International Conference on Applied Psychology: Asian Perspective* (12-14 March). Kuala Lampour, University of Malaya. Retrieved from http://www.academia.edu/2088364/Adolescents_and_Internet_Sex_Ad diction

Bandura, A. (1978). Self-efficacy: Toward a unifying theory of behavioural change. *Advances in Behaviour Research and Therapy*, *1*(4), 139–161. Retrieved from http://dx.doi.org/10.1037/0033-295X.84.2.191

Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. *Technology Studies*, *2*(2), 285–309.

Baumgartner, S. E., Valkenburg, P. M., & Peter, J. (2010a). Assessing causality in the relationship between adolescents' risky sexual online behaviour and their perceptions of this behaviour. *Journal of Youth and Adolescence*, *39*(10), 1226–39. doi:10.1007/s10964-010-9512-y. doi: 10.1007/s10964-010-9512-y

Baumgartner, S. E., Valkenburg, P. M., & Peter, J. (2010b). Unwanted online sexual solicitation and risky sexual online behaviour across the lifespan. *Journal of Applied Developmental Psychology*, *31*(6), 439–447. doi:10.1016/j.appdev.2010.07.005

Berkman Center for Internet & Society. (2008). *Enhancing child safety & online technologies* (Final report of International Safety Technical Task). Cambridge, US: Berkman. Retrieved from http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/ISTTF_Final_Report.pdf for

Bidin, Z., Shamsudin, F. M., Asraf, M. F., & Sharif, M. H. and zakiyah. (2011). Factors influencing students' intention to use Internet for academic purposes.*), Conference on Interdisciplinary Business Research, Society of Interdisciplinary Business Research (SIBR)*. Kuala Lampour, Malaysia. Available in Social Science Research Report (SSRR). Retrieved from http://dx.doi.org/10.2139/ssrn.1867902

Binz, C., Patel, V. K., & Wanzenried, G. (2014). A comparative study of CB-SEM and PLS-SEM for theory development in family firm research. *Journal of Family Business Strategy*, *5*(1), 116–128. doi:10.1016/j.jfbs.2013.12.002

Block, L. G., & Keller, P. A. (1998). Beyond protection motivation: An integrative theory of health appeals. *Journal of Applied Social Psychology*, *28*(17), 1584–1608. doi:10.1111/j.1559-1816.1998.tb01691.x

Brown, B. B., Ph, D., & Marin, P. (2009). Adolescents and electronic media: Growing up plugged in. *Children and the Electronic Media*, *18*, 1–11. Retrieved from http://www.childtrends.org/wp-content/uploads/2009/05/child_trends-2009_05_26_rb_adolelecmedia.pdf

Bryce, J., & Fraser, J. (2014). The role of disclosure of personal information in the evaluation of risk and trust in young peoples' online interactions. *Computers in Human Behaviour*, *30*, 299–306. Doi: 10.1016/j.chb.2013.09.012

Buckingham, D., & Willett, R. (2013). *Digital generations: Children, young people, and the new media*. (Routledge, Ed.). New York, US: Routledge.

Buijzen, M., Rozendaal, E., Moorman, M., & Tanis, M. (2008). Parent versus child reports of parental advertising mediation: Exploring the meaning of agreement. *Journal of Broadcasting & Electronic Media*, *52*(4), 509–525. doi: 10.1080/08838150802437180

Bybee, C. R., Robinson, D., & Turow, J. (1982). Determinants of parental guidance of children's television viewing for a special subgroup: *Journal of Broadcasting*, *26*(3), 697–710. doi:10.1080/08838158209364038

Byrne, S., Katz, S. J., Lee, T., Linz, D., & McIlrath, M. (2014). Peers, predators, and porn: Predicting parental underestimation of children's risky online experiences. *Journal of Computer-Mediated Communication*, *19*(2), 215–231. doi:10.1111/jcc4.12040

Camacho, S., Hassanein, K., & Head, M. (2014). Understanding the Factors That Influence the Perceived Severity of Cyber-bullying. In Fiona Fui-Hoon (Ed.) *Lecture Notes in Computer Science, Vol. 8527*. *HCI Business Business Information Systems* (pp. 133–144). International, Heraklion, Crete, Greece: Springer

Chai, S., Bagchi-Sen, S., Morrell, C., Rao, H. R., & Upadhyaya, S. J. (2009). Internet and online information Privacy: An exploratory study of preteens and early teens. *IEEE Transactions on Professional Communication*, *52*(2), 167–182. dio: 10.1109/TPC.2009.2017985

Chan, Zora (2012, July 7). Protection against cyber-crime. *The Star Online*. Retrieved from http://www.thestar.com.my/Story.aspx/?file=%2F2012%2F7%2F7%2Fsarawak%2F11617870

Chang, F., Chiu, C., Miao, N., & Chen, P. (2014). The relationship between parental mediation and Internet addiction among adolescents, and the association with cyberbullying and depression. *Comprehensive Psychiatry*, (available online 14 November). doi:10.1016/j.comppsych.2014.11.013

Chhachhar, A. R., Qureshi, B., Maher, Z. A., & Ahmed, S. (2014). Influence of Internet websites on children study abdul. *Journal of American Science*, *10*(5), 40–45.

Chng, G. S., Li, D., Liau, A. K., & Khoo, A. (2014). Moderating effects of the family environment for parental mediation and pathological internet use in youths. *Cyberpsychology, Behaviour, and Social Networking*, *18*(1), 30–36. doi:10.1089/cyber.2014.0368.

Cho, C., & Cheon, H. J. (2005). Children's exposure to negative Internet content: effects of family context. *Journal of Broadcasting and Media*, *49*(4), 488–509. doi:10.1207/s15506878jobem4904

Clark, L. S. (2011). Parental mediation theory for the digital age. *Communication theory, 21*(4), 323–343. doi:10.1111/j.1468-2885.2011.01391.x

Crimmins, D. M., & Seigfried-Spellar, K. C. (2014). Peer attachment, sexual experiences, and risky online behaviours as predictors of sexting behaviours among undergraduate students. *Computers in Human Behaviour, 32,* 268–275. doi:10.1016/j.chb.2013.12.012

Cross, E.-J. J., Richardson, B., Douglas, T., Von Kaenel-Flatt, J., & Vonkaenel-Flatt, J. (2009). *Protecting children from cyberbullying*. London: Beatbullying Rochester House. Retrieved from http://bee-it.co.uk/Guidance Docs/Other/Virtual Violence - Protecting Children from Cyberbullying.pdf

Cyber-bullying reports up 55.6% in 2013. (2014, February 24). *The Star Online*. Retrieved from http://www.thestar.com.my/News/Nation/2014/02/24/Cyber-bullying-up-55pc

Cyber Security Malaysia. (2011). *Annual report*. Kuala Lampour, Malaysia. Retrieved from http://www.cybersecurity.my/data/content_files/46/1033.pdf

Cyber Security Malaysia. (2013). *Cybersecurity Malaysia launch malaysia trustmark for private sector programme*. (Report No. CBMR-5-RFI-13-MYTRUSTMARK-V1) Retrieved from http://www.cybersecurity.my/data/content_files/44/1157.pdf?.diff=1372908855

Davinson, N., & Sillence, E. (2014). Using the health belief model to explore users' perceptions of "being safe and secure" in the world of technology mediated financial transactions. *International Journal of Human-Computer Studies*, *72*(2), 154–168. doi:10.1016/j.ijhcs.2013.10.003

De Zwart, O., Veldhuijzen, I. K., Elam, G., Aro, A. R., Abraham, T., Bishop, G. D., … Brug, J. (2009). Perceived threat, risk perception, and efficacy beliefs related to SARS and other (emerging) infectious diseases: Results of an international survey. *International Journal of Behavioural Medicine*, *16*(1), 30–40. doi:10.1007/s12529-008-9008-2

DiGi CyberSAFE. (2014). *Nationwide online safety survey repor; Cybersafe in schools*. (A National Survey Report). Kuala Lampour, Malaysia. Retrieved from https://digi.cybersafe.my/files/article/CyberSAFE_Survey_Report_2014.pdf

Dill, K. E. (2013). *The oxford handbook of media psychology*. New York, USA: Oxford University Press.

Duerager, A., & Livingstone, S. (2012). *How can parents support children's Internet safety?* The London School of Economics and Political Science (LSD), London, UK: EU Kids Online. Retrieved from http://www.lse.ac.uk/media@lse/research/EUKidsOnline/EU%20Kids%20III/Reports/ParentalMediation.pdf

Eastin, M. S., Greenberg, B. S., & Hofschire, L. (2006). Parenting the Internet. *Journal of Communication*, *56*(3), 486–504. doi:10.1111/j.1460-2466.2006.00297.x

Efron, B., & Tibshirani, R. J. (1994). *An introduction to the bootstrap*. New York, USA: Chapman and Hall.

Ekizoglu, N., & Ozcinar, Z. (2010). The relationship between the teacher candidates' computer and Internet based anxiety and perceived self-efficacy. *Procedia - Social and Behavioural Sciences*, *2*(2), 5881–5890. doi:10.1016/j.sbspro.2010.03.962

Eynon, R. (2009). *Harnessing technology: The learner and their context. Mapping young people's uses of technology in their own contexts*. (A Nationally Representative Survey). Retrieved from http://dera.ioe.ac.uk/id/eprint/1528

Eynon, R., & Geniets, A. (2015). The digital skills paradox: How do digitally excluded youth develop skills to use the Internet? *Learning, Media and Technology*, 1–17. doi:10.1080/17439884.2014.1002845

Family Online Safety Institute. (2013). *Teen identity theft*. (Research Report). Retrieved from www.fosi.org/files/Teen-Identity-Theft-online.pd

Farit, N. S. (2014, July 9). Online social media and parenting: What really matters? *Malaysian Digest*. Retrieved from http://www.malaysiandigest.com/frontpage/282-main-tile/508406-online-social-media-and-parenting-what-really-matters.html

Faryadi, Q. (2011). Available online through cyber bullying and academic performance. *International Journal of Computational Engineering Research*, *1*(1), 23–30.

Feng, Y., & Xie, W. (2014). Teens' concern for privacy when using social networking sites : An analysis of socialization agents and relationships with privacy-protecting behaviours. *Computers in Human Behaviour, 33*, 153–162. doi:10.1016/j.chb.2014.01.009

Finkelhor, D. (2014). Commentary: Cause for alarm? Youth and Internet risk research--a commentary on Livingstone and Smith (2014). *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 55*(6), 655–8. doi:10.1111/jcpp.12260

Finkelhor, D., Mitchell, K. J., & Wolak, J. (2000). *Online victimization: A report on the nation's youth*. Retrieved from http://www.unh.edu/ccrc/pdf/jvq/CV38.pdf

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.

Fujioka, Y., & Weintraub-Austin, E. (2003). The implications of vantage point in parental mediation of television and child's attitudes toward drinking alcohol. *Journal of Broadcasting & Electronic Media*, *47*(3), 418–434.

Gainsbury, S., Parke, J., & Suhonen, N. (2013). Consumer attitudes towards Internet gambling: Perceptions of responsible gambling policies, consumer protection, and regulation of online gambling sites. *Computers in Human Behaviour*, *29*(1), 235–245. doi:10.1016/j.chb.2012.08.010

Gentile, D. A., Nathanson, A. I., Rasmussen, E. E., Reimer, R. A., & Walsh, D. A. (2012). Do you see what I see? Parent and child reports of parental monitoring of media. *Family Relations*, *61*, 470–487. doi:10.1111/j.1741-3729.2012.00709.x

Glanz, K., & Rimer, B. K. (2005). *Theory at a glance: A guide for health promotion practice* (2nd ed.). MD, U.S: Department of Health and Human Services, National Institutes of Health. Retrieved from http://www.cancer.gov/PDF/481f5d53-63df-41bc-bfaf-5aa48ee1da4d/TAAG3.pdf

Gordon-Messer, D., Bauermeister, J. A., Grodzinski, A., & Zimmerman, M. (2013). Sexting among young adults. *Journal of Adolescent Health, 52*(3), 301–306. doi: http://dx.doi.org/10.1016/j.jadohealth.2012.05.013

Griffiths, M., & Wood, R. T. (2000). Risk factors in adolescence: The case of gambling, videogame playing, and the Internet. *Journal of Gambling Studies, 16*(2-3), 199–225. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/14634313

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). New Jersy: Pearson Prentice Hall.

Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). *A primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. United States: SAGE Publications, Inc.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial Least Squares Structural Equation Modeling : Rigorous applications, better results and higher acceptance. *Long Range Planning, 46*, 1–12.

Harcourt, S., Jasperse, M., & Green, V. a. (2014). "We were sad and we were angry": A systematic review of parents' perspectives on bullying. *Child & Youth Care Forum*, *43*(3), 373–391. doi:10.1007/s10566-014-9243-4

Hardin, a. M., Chang, J. C.-J., Fuller, M. a., & Torkzadeh, G. (2010). Formative measurement and academic research: In search of measurement theory. *Educational and Psychological Measurement*, *71*(2), 281–305. doi:10.1177/0013164410370208

Hasebrink, U., Görzig, A., Haddon, L., Kalmus, V., & Livingstone, S. (2011). *Patterns of risk and safety online*. LSD, London, UK: EU Kids Online. Retrieved from ttp://www.lse.ac.uk/media@lse/research/EUKidsOnline/EU Kids II (2009-11)/EUKidsOnlineIIReports/D5 Patterns of risk.pdf

Hasebrink, U., Livingstone, S., & Haddon, L. (2009). *Comparing children's online opportunities and risks across Europe*. LSD, London, UK: EU Kids Online. Retrieved from http://eprints.lse.ac.uk/24368/1/D3.2_Report-Cross_national_comparisons-2nd-edition.pdf

Herath, T., Chen, R., Wang, J., Banjara, K., Wilbur, J., & Rao, H. R. (2014). Security services as coping mechanisms: An investigation into user intention to adopt an email authentication service. *Information Systems Journal*, *24*(1), 61–84. doi:10.1111/j.1365-2575.2012.00420.x

90

Holbert, R. L., & Stephenson, M. T. (2002). Structural Equation Modeling in the communication sciences, 1995?2000. *Human Communication Research*, *28*(4), 531–551. doi:10.1111/j.1468-2958.2002.tb00822.x

Holtz, P., & Appel, M. (2011). Internet use and video gaming predict problem behaviour in early adolescence. *Journal of Adolescence*, *34*(1), 49–58. doi:10.1016/j.adolescence.2010.02.004

Hsu, M.-H., & Chiu, C.-M. (2004). Internet self-efficacy and electronic service acceptance. *Decision Support Systems, 38*(3), 369–381. doi:10.1016/j.dss.2003.08.001

Hsu, S.-F., & Kao, K.-C. (2007). Contextualization of relationship between parents, children and internet by data mining. *In Second International Conference on Innovative Computing, Informatio and Control (ICICIC 2007)*. Ieee. doi:10.1109/ICICIC.2007.226

Huang, G. C., Unger, J. B., Soto, D., Fujimoto, K., Pentz, M. A., Jordan-Marsh, M., & Valente, T. W. (2014). Peer influences: The impact of online and offline friendship networks on adolescent smoking and alcohol use. *The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine*, *54*(5), 508–14. doi:10.1016/j.jadohealth.2013.07.001

Hyeun-Suk Rheea, Kimb, C., & Ryu, Y. U. (2009). Self-efficacy in information security: Its influence on end users' information security practice behaviour. *Computer & Security*, *28*(8), 816–826.

International Telecommunication Union (ITU). (2009). *Guidelines for parents, Guardians and educators on child online protection.* Switzerland Geneva. Retrieved from http://www.cybersafe.my/pdf/guidelines/educators.pdf

"Internet Safety for School Children". (2013, November 26). *Maxit Online*. Retrieved from http://www.maxit.com.my/2013/11/internet-safety-for-school-children/

Ismail, K. (2011, October 11). Cyber-duped parents. *Malay Mail*. Kuala Lampour. Retrieved from http://www.cybersecurity.my/en/knowledge_bank/news/2011/main/detail/2089/index.html

Jacobs, N. C. L., Dehue, F., Völlink, T., & Lechner, L. (2014). Determinants of adolescents' ineffective and improved coping with cyberbullying: A delphi

study. *Journal of Adolescence*, *37*(4), 373–85. doi:10.1016/j.adolescence.2014.02.011

Janz, N. K., & Becker, M. H. (1984). The health belief model: A decade later. *Health Education Quarterly*, *11*(1), 1–47. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/6392204

Jones, L. M., Mitchell, K. J., & Finkelhor, D. (2012). Trends in youth Internet victimization: findings from three youth Internet safety surveys 2000-2010. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, *50*(2), 179–86. doi:10.1016/j.jadohealth.2011.09.01

Jonsson, L. S., Priebe, G., Bladh, M., & Svedin, C. G. (2014). Voluntary sexual exposure online among Swedish youth–social background, Internet behaviour and psychosocial health. *Computers in Human Behaviour, 30*, 181–190. doi:10.1016/j.chb.2013.08.0055

Judge, A. M. (2012). "Sexting" among US adolescents: Psychological and legal perspectives. *Harvard Review of Psychiatry, 20*(2), 86–96. doi: 10.3109/10673229.2012.677360.

Kahne, J., Middaugh, E., Lee, N.-J., & Feezell, J. T. (2011). Youth online activity and exposure to diverse perspectives. *New Media & Society*, *14*(3), 492–512. doi:10.1177/1461444811420271

Kamarudin, R. P. (2011, November 27). Why Umno is now going cyber. *Malaysian Today*. Retrieved from http://www.malaysia-today.net/why-umno-is-now-going-cyber/

Kowalski, R. M., & Limber, S. P. (2007). Electronic bullying among middle school students. *Journal of Adolescent Health*, *41*(6), S22–S30. DOI: http://dx.doi.org/10.1016/j.jadohealth.2007.08.017

Kuo, F.-Y., & Hsu, M.-H. (2001). Development and validation of ethical computer self-efficacy measure: The case of softlifting. *Journal of Business Ethics, 32*(4), 299–315. Retrieved from http://download.springer.com/static/pdf/853/art%253A10.1023%252FA%253A1010715504824.pdf?auth66=1423540144_19503348a54cff84cf0d54b67f4f8ad9&ext=.pdf

Lallmahamood, M. (2008). Privacy over the Internet in Malaysia: A Survey of general concerns and preferences among private individuals. *Malaysian Management Review*. *43*(1), 77–10 Retrieved from

http://www.mim.org.my/resources/mmr/2008/Privacy over the Internet.pdf

Lee, D., Larose, R., & Rifon, N. (2008). Keeping our network safe: A model of online protection behaviour. *Behaviour & Information Technology*, *27*(5), 445–454. doi:10.1080/01449290600879344

Lee, S.-J. (2012). Parental restrictive mediation of children's Internet use: Effective for what and for whom? *New Media & Society*, *15*(4), 466–481. doi:10.1177/1461444812452412

Lenhart, A., Madden, M., & Hitlin, P. (2005). *Teens and technology: Youth are leading the transition to a fully wired and mobile nation*. Washington D.C. Retrieved from http://www.pewinternet.org/files/old-media/Files/Reports/2005/PIP_Teens_Tech_July2005web.pdf.pdf

Lievens, E. (2014). Bullying and sexting in social networks: Protecting minors from criminal acts or empowering minors to cope with risky behaviour? *International Journal of Law, Crime and Justice*, *42*(3), 251–270. doi:10.1016/j.ijlcj.2014.02.001

Liau, A. K., Khoo, A., & Ang, P. H. (2008). Parental awareness and monitoring of adolescent Internet use. *Current Psychology*, *27*(4), 217–233. doi:10.1007/s12144-008-9038-6

Livingstone, S., & Smith, P. K. (2014). Harms experienced by child users of online and mobile technologies: The nature, prevalence and management of sexual and aggressive risks in the digital age. *Journal of Child Psychology and Psychiatry, 55*(6), 635–654. doi:10.1111/jcpp.12197

Livingstone, S. (2014). Developing social media literacy: How children learn to interpret risky opportunities on social network sites. *Communications, 39*(3), 283–303. doi: 10.1515/commun-2014-0113,

Livingstone, S., & Bober, M. (2009). Regulating the Internet at home: Contrasting the perspectives of children and parents book section. In *Digital generations: children, young people and new mediayoung people and new media* (pp. 93–113). LSE Research Online.

Livingstone, S., Haddon, L., & Gorzig, A. (2012). *Children, risk and safety on the internet: Research and policy challenges in comparative perspective*. LSD, London, UK: EU Kids Online

Livingstone, S., Haddon, L., Görzig, A., & Olafsson, K. (2011a). *Risks and safety on the Internet: The perspective of European children kids online network*. LSD, London: EU Kids Online. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB8QFjAA&url=http%3A%2F%2Fwww.lse.ac.uk%2Fmedia%40lse%2Fresearch%2FEUKidsOnline%2FEU%2520Kids%2520II%2520(2009-11)%2FSurvey%2FTechnical%2520report.PDF&ei=A_0lVMbpEdSgugTMkIG4BA&usg=AFQjCNHq-Mo-F_6u9jVgwTyQbAMVD2C2IQ&sig2=Dlc3369cJf0KlmftXHfxVg

Livingstone, S., Haddon, L., Görzig, A., & Olafsson, K. (2011b). *Technical report and user guide: The 2010 EU Kids online survey their parents: In 25 Countries Kids Online Network*. LSD, London, UK: EU Kids Online. Retrieved from http://www.lse.ac.uk/media@lse/research/EUKidsOnline/EU%20Kids%20II%20%282009-11%29/Survey/Technical%20report.pdf

Livingstone, S., & Helsper, E. (2009). Balancing opportunities and risks in teenagers' use of the Internet: The role of online skills and Internet self-efficacy. *New Media & Society*, *12*(2), 309–329. doi:10.1177/1461444809342697

Livingstone, S., & Helsper, E. J. (2008). Parental mediation of children's Internet use. *Journal of Broadcasting & Electronic Media*, *52*(4), 581–599. doi:10.1080/08838150802437396

Lwin, M. O., Stanaland, A. J. S., & Miyazaki, A. D. (2008). Protecting children's privacy online: How parental mediation strategies affect website safeguard effectiveness. *Journal of Retailing*, *84*(2), 205–217.

Lwin, M. O., Li, B., & Ang, R. P. (2012). Stop bugging me: an examination of adolescents' protection behaviour against online harassment. Journal of Adolescence, 35(1), 31–41. doi:10.1016/j.adolescence.2011.06.007

Madden, M., Lenhart, A., Duggan, M., Cortesi, S., & Gasser, U. (2013). *Teens and technology 2013*. Pew Internet & American Life Project. Retrieved from http://www.pewinternet.org/files/old-media//Files/Reports/2013/PIP_TeensandTechnology2013.pdf

Malaysia is sixth most vulnerable to cyber crime. (2014, September 23). *The Star Online*. Kuala Lampour, Malaysia. Retrieved from http://www.thestar.com.my/News/Nation/2014/09/23/cyber-crime-malaysians-sixth-most-vulnerable/

Martínez de Morentin, J. I., Cortés, A., Medrano, C., & Apodaca, P. (2014). Internet use and parental mediation: A cross-cultural study. *Computers & Education, 70*, 212–221. doi:10.1016/j.compedu.2013.07.036

Marwick, A. E., Diaz, D. M., & Palfrey, J. (2010). *Youth, privacy, and reputation literature review*. (Working Paper No. 10-29) Berkman Center Research Publication: Harvard Public Law. Retrieved from http://ssrn.com/abstract=1588163

Masrom, M., Mahmood, N. H. N., Zainon, O., An, H. L., & Jamal, N. (2012). Information and communication technology issues: A case of Malaysian primary school. *Journal of Science and Technology, 2*(5), 504–511.

Maulana, F. A., Abdulmana, S., & Alfariti, F. (2011). Collaborative Internet content filtering on the Internet infrastructure in Malaysia. *International Conference on Uncertainty Reasoning and Knowledge Engineering*, 12–15. doi:10.1109/URKE.2011.6007822

McFarlane, M., Bull, S. S., & Rietmeijer, C. a. (2002). Young adults on the Internet: risk behaviours for sexually transmitted diseases and HIV(1). *The Journal of Adolescent Health 31*(1), 11–6. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/12090960

Malaysian communications and multimedia commission (MCMC). (2011). *Statistical brief number thirteen household use of the Internet survey*. MCMC, Malaysia. Retrieved from http://www1.skmm.gov.my/skmmgovmy/media/General/pdf/SKMM_2011.pdf

Malaysian communications and multimedia commission (MCMC). (2012). *Internet users survey*. MCMC, Malaysia. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB4QFjAA&url=http://www.skmm.gov.my/skmmgovmy/media/General/pdf/InternetUsersSurvey2012.pdf&ei=9hbGU6p4ice4BMnDgsgM&usg=AFQjCNEQNNN3JQVQtdzGUMgc597UQwciBQ&sig2=r5VZ5iJkoBdCluTOj-SzdQ

McKinley, C. J., & Ruppel, E. K. (2014). Exploring how perceived threat and self-efficacy contribute to college students' use and perceptions of online mental health resources. *Computers in Human Behaviour, 34*, 101–109. doi:10.1016/j.chb.2014.01.038

Member, S. (2009). Internet and online information privacy: An exploratory study of preteens and early teens. *IEEE Transactions on Professional Communication*, *52*(2), 167–182.

Mesch, G. (2009). Social bonds and Internet pornographic exposure among adolescents. *Journal of Adolescence*, *32*(3), 601–18. doi:10.1016/j.adolescence.2008.06.004. Epub 2008 Aug 9

Microsoft Corporation Malaysia. (2012). *Online bullying among youth 8-17 years old*. Retrieved from http://download.microsoft.com/download/E/8/4/E84BEEAB-7B92-4CF8-B5C7-7CC20D92B4F9/WW Online Bullying Survey - Executive Summary - Malaysia_Final.pdf

Mishna, F., Schwan, K. J., Lefebvre, R., Bhole, P., & Johnston, D. (2014). Students in distress: Unanticipated findings in a cyber bullying study. *Children and Youth Services Review*. (Accepted manuscript). doi:10.1016/j.childyouth.2014.04.010

Mitchell, K. J., Wolak, J., & Finkelhor, D. (2007). Trends in youth reports of sexual solicitations, harassment and unwanted exposure to pornography on the Internet. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, *40*(2), 116–26. doi:10.1016/j.jadohealth.2006.05.021

Mitchell, K. J., Wolak, J., & Finkelhor, D. (2008). Are blogs putting youth at risk for online sexual solicitation or harassment? *Child Abuse & Neglect*, *32*(2), 277–94. doi:10.1016/j.chiabu.2007.04.015

Mohamed, N., & Hawa, I. (2012). Information privacy concerns , antecedents and privacy measure use in social networking sites: Evidence from Malaysia. *Computers in Human Behaviour*, *28*, 2366–2375.

Moore, R. (2010). Parental regulation and online activities: Examining factors that influence a youth' s potential to become a victim of online harassment. *International Journal of Cyber Criminology*, *4*(1), 685–698.

Moreno, M. A., VanderStoep, A., Parks, M. R., Zimmerman, F. J., Kurth, A., & Christakis, D. A. (2009). Reducing at-risk adolescents' display of risk behaviour on a social networking website: A randomized controlled pilot intervention trial. *Archives of Pediatrics & Adolescent Medicine*, *163*(1), 35–41. doi:10.1001/archpediatrics.2008.502

Mustaffa, N., Ibrahim, F., Amizah, W., Mahmud, W., Ahmad, F., Kee, C. P., & Mahbob, M. H. (2011). The adoption of facebook among youth in Malaysia. *The Innovation Journal: The Public Sector Innovation Journal*, *16*(3). Article 8

Nathanson, A. I. (1999). Identifying and explaining the relationship between parental mediation and children's aggression. *Communication Research*, *26*(2), 124–143. doi:10.1177/009365099026002002

Nathanson, A. I. (2009). The unintended effects of parental mediation of television on adolescents. *Media Phychology (4)*3, 207-230. doi:10.1207/S1532785XMEP0403

Nathanson, A., Jr, W. P. E., Park, H., & Paul, B. (2002). Perceived media influence and efficacy as predictors of caregivers' protective behaviours perceived media influence and efficacy as predictors of caregivers' protective behaviours. *Journal of Broadcasting & Electronic Media, 46*(3), 385–410. doi:10.1207/s15506878jobem4603

Ng, B.-Y., Kankanhalli, A., & Xu, Y. (Calvin). (2009). Studying users' computer security behaviour: A health belief perspective. *Decision Support Systems*, *46*(4), 815–825. doi:10.1016/j.dss.2008.11.010

Nik Mazwin, N. A., Rahim, R. A., & Lim, Y. (2012). Najib: Cyber bullying a serious threat to kids. *The Star Online*. Retrieved from http://www.thestar.com.my/News/Nation/2012/10/10/Najib-Cyber-bullying-a-serious-threat-to-kids.aspx

Nikken, P., & Jansz, J. (2014). Developing scales to measure parental mediation of young children's Internet use. *Learning, Media and Technology*, *39*(2), 250–266. doi:10.1080/17439884.2013.782038

Nikken, P., & Jansz, J. (2006). Parental mediation of children's videogame playing: a comparison of the reports by parents and children. *Learning, Media and Technology, 31*(2), 181–202. doi:10.1080/17439880600756803

Noh, C. H. C., & Ab Rahman, A. H. (2013). Cyber Bullying: A General Islamic Outlook and Response. *Advances in Natural & Applied Sciences*, *7*(3).

Norman, P., Boer, H., & Seydel, E. (2005). Protection motivation theory. Berkshier, England: McGraw-Hill.

Norton Online Family Report. (2010) *Global insights into family life online*. Retrieved from http://us.norton.com/content/en/us/home_homeoffice/media/pdf/no fr/Norton_Family-Report- USA_June9.pdf

Online Safety and Technology Working Group Online Safety and Technology Working Group (OSTWG). (2010). *Youth safety on a living Internet: Report of*

the online safety and technology working group. Retrieved from http://www.ntia.doc.gov/legacy/reports/2010/OSTWG_Final_Report_060410.pdf

Organisation for Economic Co-Operation and Development (OECD). (2012). *The protection of children online*. (Research Report). Retrieved from http://www.oecd.org/sti/ieconomy/childrenonline_with_cover.pdf

O'Sullivan, L. F. (2014). Linking online sexual activities to health outcomes among teens. *New Directions for Child and Adolescent Development, 144,* 37–51. doi:10.1002/cad.20059

Oswell, D. (2008). Media and Communications Regulation and Child Protection: An Overview of the Field. In *International Handbook of Children, Media and Culture* (pp. 469–486). London: Goldsmiths Research Online.

Pallant, J. (2011). *SPSS survival manual* (4th ed.). Crows Nest, Australia: Allen & Unwin.

Park, S., Na, E., & Kim, E. (2014). The relationship between online activities, netiquette and cyberbullying. *Children and Youth Services Review, 42,* 74–81.

Pierce, T. (2006). Talking to strangers on MySpace: Teens' use of Internet social networking sites. *Journal of Media Psychology*, 11(3).

Potosky, D. (2002). A field study of computer efficacy beliefs as an outcome of training: the role of computer playfulness, computer knowledge, and performance during training. *Computers in Human Behaviour, 18*(3), 241–255.

Prentice-Dunn, S., & Rogers, R. W. (1986). Protection motivation theory and preventive health: Beyond the health belief model. *Health Education Research*, *1*(3), 153–161. doi:10.1093/her/1.3.153

Pujazon-Zazik, M., & Park, M. J. (2010). To tweet, or not to tweet: Gender differences and potential positive and negative health outcomes of adolescents' social internet use. *American Journal of Men's Health*, *4*(1), 77–85. doi:10.1177/1557988309360819

Raman, A. (2011). The usage of technology among education students in University Utara Malaysia : An application of extended Technology Acceptance Model Arumugam Raman. *International Journal of Education and Development Using Information and Communication Technology, 7*(3), 4–17.

Rice, E., Gibbs, J., Winetrobe, H., Rhoades, H., Plant, A., Montoya, J., & Kordic, T. (2014). Sexting and sexual behaviour among middle school students. *Pediatrics*, *134*(1), e21–e28.

Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change1. *The Journal of Psychology, 91*(1), 93–114.

Rogers, R.W. (1983). *Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation*. In J. Cacioppo & R. Petty (Eds.), Social Psychophysiology. New York: Guilford Press.

Ronis, D. L. (1992). Conditional health threats: Health beliefs, decisions, and behaviours among adults. *Health Psychology, 11*(2), 127.

Rosenstock, I. M. (1974). Historical origins of the health belief model. *Health Educ Behav*, *2*(4), 328–335. doi:10.1177/109019817400200403

Rosenstock, I. M., Strecher, V. J., & Becker, M. H. (1988). Social learning theory and the Health Belief Model. *Health Education Quarterly*, *15*(2), 175–83. doi:10.1177/109019818801500203

Sabina, C., Wolak, J., & Finkelhor, D. (2008). The nature and dynamics of internet pornography exposure for youth. *Cyberpsychology & Behaviour*, *11*(6), 691–3. doi:10.1089/cpb.2007.0179

Saeri, A. K., Ogilvie, C., La Macchia, S. T., Smith, J. R., & Louis, W. R. (2014). Predicting facebook users' online privacy protection: risk, trust, norm focus theory, and the theory of planned Behaviour. *The Journal of Social Psychology*, *154*(4), 352–369. doi:10.1080/00224545.2014.914881

Salman, A., & Hasim, M. S. (2011). Internet usage in a Malaysian sub-urban community: A study of diffusion of ict innovation. *The Innovation Journal*, *16*(2): Article 6

Samimi, P., & Alderson, K. G. (2014). Sexting among undergraduate students. *Computers in Human Behaviour, 31*, 230–241. doi:10.1016/j.chb.2013.10.027

Serra, S. M., & Venter, H. (2011). Mobile cyber-bullying : A proposal for a pre-emptive approach to risk mitigation by employing digital forensic readiness. *Information Security South Africa (ISSA), Aug*, 15–17.

Ševčíková, A., Šerek, J., Barbovschi, M., & Daneback, K. (2014). The roles of individual characteristics and liberalism in intentional and unintentional exposure to online sexual material among european youth: A multilevel

approach. *Sexuality Research and Social Policy*, *11*(2), 104–115. doi:10.1007/s13178-013-0141-6

Shafie, L. A., Mansor, M., Osman, N., Nayan, S., & Maesin, A. (2011). Privacy, trust and social network sites of university students in Malaysia. *Research Journal of International Studies, 20*(20), 154–162.

Shanti, B., & Wah, K. S. (2006). Voices for change; Media literacy and a case study on designing of opportunities for learning internet radio in Malaysia. *Media Asia*, *1&2*(33), 87–98.

Sharma, A. (2011). Role of family in consumer socialization of children: Literature Review. *Journal of Arts, Science & Commerce*, *II*(July), 161–167.

Shin, W., & Huh, J. (2011). Parental mediation of teenagers' video game playing: Antecedents and consequences. *New Media & Society*, *13*(6), 945–962. doi:10.1177/1461444810388025

Shin, W., Huh, J., & Faber, R. (2012). Tweens' online privacy risks and the role of parental mediation. *Journal of Broadcasting & Electronic Media*, *56*(4), 37–41. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/08838151.2012.732135

Short, M. B., Black, L., Smith, A. H., Wetterneck, C. T., & Wells, D. E. (2012). A review of Internet pornography use research: Methodology and content from the past 10 years. *Cyberpsychology, Behaviour and Social Networking*, *15*(1), 13–23. doi:10.1089/cyber.2010.0477

Singer, M. I., Flannery, D. J., Guo, S., Miller, D., & Leibbrandt, S. (2004). Exposure to violence, parental monitoring, and television viewing as contributors to children's psychological trauma. *Journal of Community Psychology, 32*(5), 489–504.

Sipalan, J. (2013, October 12). Malaysian youths fourth most active Internet users. *The Malay Mail Online*. Retrieved from http://www.themalaymailonline.com/malaysia/article/report-malaysian-youths-fourth-most-active-internet-users-globally

Slavtcheva-Petkova, V., Nash, V. J., & Bulger, M. (2015). Evidence on the extent of harms experienced by children as a result of online risks: Implications for policy and research. *Information, Communication & Society, 18*(1), 48–62. doi:10.1080/1369118X.2014.934387

Smahel, E. D., & Wright, M. F. (2014). The meaning of online problematic situations for children Results of qualitative cross-cultural investigation in nine European countries (pp. 1–171).

Soh Chin Hooi, P. (2010). *Influence of parents and peers on internet usage and addiction amongst school-going youths in Malaysia*. Unpublished doctorate dissertation, Malaysian University of Science and Technology, Malaysia.

Staksrud, E., & Livingstone, S. (2009). Children and online risk. *Information, Communication & Society*, *12*(3), 364–387. doi:10.1080/13691180802635455

Stanton, J., Mastrangelo, P., Stam, K., & Jolton, J. (2004). Behavioural information security: Two end user survey studies of motivation and security practices. *AMCIS 2004 Proceedings*, 175.

Stattin, H., & Kerr, M. (2000). Parental monitoring: A reinterpretation. *Child Development*, *71*(4), 1072–85. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/11016567

Steinberg, L. (2008). A social neuroscience perspective on adolescent risk-taking. *Developmental Review*, *28*(1), 78–106. Retrieved from http://www.eric.ed.gov/ERICWebPortal/detail?accno=EJ788047

Stern, T. (2011). *User behaviour on online social networks and the Internet: A protection motivation perspective by*. The City University of New York.

Strassberg, D. S., Rullo, J. E., & Mackaronis, J. E. (2014). The sending and receiving of sexually explicit cell phone photos ("Sexting") while in high school: One college's students' retrospective reports. *Computers in Human Behaviour*, *41*, 177–183. doi:10.1016/j.chb.2014.09.008

Strider, J., Third, A., Locke, K., & Richardson, I. (2012). *Parental approaches to enhancing young people's online Safety*. (Litarature Review). Retrieved from http://www.youngandwellcrc.org.au/wp-content/uploads/2014/03/Parental_Approaches_to_Enhancing_Young_People_s_Online_Safety.pdf

Su, C., & Holt, T. J. (2010). Cyber bullying in Chinese web forums : An. *International Journal of Cyber Criminology*, *4*(July), 672–684.

Tan, C. F. (2012). *Malaysian consumers' perceptions of online shopping*.Unpublished Thesis, Elliott School of Communication, Wichita State University, US.

Tayie, S. (2005). *Research methods and writing research proposals*. Egypt: Center for Advancement of Postgraduate Studies and Research in Engineering Sciences, Faculty of Engineering, Cairo University.

Teasdale, J. D. (1978). Self-efficacy: Toward a unifying theory of behavioural change? *Advances in Behaviour Research and Therapy*, *1*(4), 211–215.

Temple, J. R., Le, V. D., van den Berg, P., Ling, Y., Paul, J. A., & Temple, B. W. (2014). Brief report: Teen sexting and psychosocial health. *Journal of Adolescence*, *37*(1), 33–36.

Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behaviour*, *26*(3), 277–287. doi:10.1016/j.chb.2009.11.014

Torkzadeh, G., Chang, J. C.-J., & Demirhan, D. (2006). A contingency model of computer and Internet self-efficacy. *Information & Management, 43*(4), 541–550. doi:10.1016/j.im.2006.02.001

Tuah, J. H., & Wee, S. H. (1999). Internet use amongst secondary school students in Kuala lumpur, Malaysia. *Malaysian Journal of Library & Information Science*, *4*(2), 1–20.

Tunner, J. F., Day, E., & Crask, M. R. (1989). Protection motivation theory. Journal of Business Research, 19(4), 267–276. doi:10.1016/0148-2963(89)90008-8

Uba, I., Yaacob, S. N., Juhari, R., & Talib, M. A. (2010). Effect of self-esteem on the relationship between depression and bullying among teenagers in Malaysia. *Asian Social Science*, *6*(12), 77–85.

United Nations Children's Fund (UNICEF) Malaysia. (2014). Exploring the digital landscape in Malaysia; Access and use of digital technologies by children and adolescents. Retrieved from http://www.skmm.gov.my/skmmgovmy/media/General/pdf/Digital_Landscape_in_Malaysia_3.pdf

Urbas, G. (2010). Protecting children from online predators: The use of covert investigation techniques by law enforcement. *Journal of Contemporary Criminal Justice*, *26*(4), 410–425. doi:10.1177/1043986210377103

Vance, A., Anderson, B. B., Kirwan, B., & Eargle, D. (2014). Using Measures of Risk Perception to Predict Information Security Behaviour: Insights from

Electroencephalography (EEG). *Journal of the Association for Information Systems Forthcoming*.

Waddell, J. C., McLaughlin, C., LaRose, R., Rifon, N., Wirth-Hawkins, C., Crouse, J., … Christina, R. (2014). Promoting online safety among adolescents: enhancing coping self-efficacy and protective behaviours through enactive mastery. *Communication and Information Technologies Annual (Studies in Media and Communications, Volume 8) Emerald Group Publishing Limited*, *8*, 133–157.

Wan Ismail, W. S., Nik Jaafar, N. R., Sidi, H., Midin, M., & Shah, S. A. (2013). Why do young adolescents bully? Experience in Malaysian schools. *Comprehensive Psychiatry*. doi:10.1016/j.comppsych.2013.05.002

Warren, R. (2010). Parental Mediation of Preschool Children ' s Television Viewing Parental Mediation of Preschool Children ' s Television Viewing, (August 2013), 37–41. doi:10.1207/s15506878jobem4703

Weathington, B. L., Cunningham, C. J. L., & Pittenger, D. J. (2010). *Research methods for the behavioural and social sciences*. New Jersey: John Wiley & Sons.

Wisniewski, P., Xu, H., Rosson, M. B., & Carroll, J. M. (2014). adolescent online safety: The " moral " of the story. *Parents and Children (February)*, 15–19

Weisskirch, R. S., & Delevi, R. (2011). "Sexting" and adult romantic attachment. *Computers in Human Behaviour*, *27*(5), 1697–1701.

Wolak, J., Finkelhor, D., & Mitchell, K. (2008). Is talking online to unknown people always risky? Distinguishing online interaction styles in a national sample of youth Internet users. *Cyberpsychology & Behavio*, *11*(3), 340–3. doi:10.1089/cpb.2007.0044

Wolak, J., Mitchell, K., & Finkelhor, D. (2006). *online victimization of youth: Five years later* (Research Report). Crimes Against Children Research Center University of New Hampshire. Retrieved from http://www.unh.edu/ccrc/pdf/CV138.pdf

Wolak, J., Mitchell, K., & Finkelhor, D. (2007). Unwanted and wanted exposure to online pornography in a national sample of youth Internet users. *Pediatrics*, *119*(2), 247–57. doi:10.1542/peds.2006-1891

Yan, Y., Jacques-Tiura, A. J., Chen, X., Xie, N., Chen, J., Yang, N., … Macdonell, K. K. (2014). Application of the Protection Motivation Theory in predicting

cigarette smoking among adolescents in China. *Addictive Behaviours*, *39*(1), 181–8. doi:10.1016/j.addbeh.2013.09.027

Yau, Y. H. C., Pilver, C. E., Steinberg, M. a, Rugle, L. J., Hoff, R. a, Krishnan-Sarin, S., & Potenza, M. N. (2014). Relationships between problematic Internet use and problem-gambling severity: findings from a high-school survey. *Addictive Behaviours*, *39*(1), 13–21. doi:10.1016/j.addbeh.2013.09.003

Ybarra, M. L., Diener-West, M., & Leaf, P. J. (2007). Examining the overlap in internet harassment and school bullying: implications for school intervention. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, *41*(6 Suppl 1), S42–50. doi:10.1016/j.jadohealth.2007.09.004

Ybarra, M. L., Espelage, D. L., & Mitchell, K. J. (2007). The co-occurrence of Internet harassment and unwanted sexual solicitation victimization and perpetration: associations with psychosocial indicators. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, *41*(6 Suppl 1), S31–41. doi:10.1016/j.jadohealth.2007.09.010

Ybarra, M. L., & Mitchell, K. J. (2014). "Sexting" and its relation to sexual activity and sexual risk behaviour in a national survey of adolescents. *Journal of Adolescent Health, 55*(6), 757–764.

Ybarra, M. L., & Mitchell, K. J. (2008). How risky are social networking sites? A comparison of places online where youth sexual solicitation and harassment occurs. *Pediatrics*, *121*(2), e350–e357.

Ybarra, M. L., & Mitchell, K. J. (2005). Exposure to Internet pornography among children and adolescents: A national survey. *Cyberpsychology & Behaviour : The Impact of the Internet, Multimedia and Virtual Reality on Behaviour and Society*, *8*(5), 473–86. doi:10.1089/cpb.2005.8.473

Ying-Tien WU, M. E., & Chin-Chung Tsai, E. . (2006). Self-efficacy : A study at three universities in Taiwan. *Cyberpsychology & Behavio*, *9*(4), 441–451.

Youn, S. (2009). Determinants of online privacy concern and its influence on privacy protection behaviours among young adolescents. *The Journal of Consumer Affairs*, *43*(3), 389–418.

Youn, S. (2005). Teenagers' perceptions of online privacy and coping behaviours: a risk–benefit appraisal approach. *Journal of Broadcasting & Electronic Media, 49*(1), 86–110.

European Youth Protection Roundtable Toolkit (YPRT). (2008). *Youth Protection Roundtable*. (Research Report) Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CCQQFjAB&url=http%3A%2F%2Fec.europa.eu%2Finformation_society%2Fapps%2Fprojects%2Flogos%2F7%2FSIP-2005-UE-518747%2F080%2Fpublishing%2Freadmore%2FYPRT%2520Toolkit.pdf&ei=zfQlVICAPMGgugSaiYCQDw&usg=AFQjCNH1QH9CceXrI_V4rfYzfVr_M_-ENA&sig2=oicL_CoQK6NLAnkQOaONhg

Zhou, Z., Tang, H., Tian, Y., Wei, H., Zhang, F., & Morrison, C. M. (2013). Cyberbullying and its risk factors among Chinese high school students. *School Psychology International*. doi:10.1177/0143034313479692

1-in-3 Malaysian kids victims of cyber-bullying: Microsoft survey (2012, August 10) *Digital News Asia.* Retrieved from http://www.digitalnewsasia.com/testing123