

# Protecting Preteens on Facebook: An Exploratory Examination of Parental Mediation Strategies for Children's Facebook Use in Singapore

Andrea J. S. Stanaland<sup>1</sup>, May O. Lwin<sup>2</sup>, Poh Yeang-Cherng<sup>2</sup>, Cheryl Chong<sup>2</sup>

<sup>1</sup>Department of Marketing, College of Business & Economics, Radford University, Radford, Virginia, USA

<sup>2</sup>Division of Public & Promotional Communication, Wee Kim Wee School of Communication & Information, Nanyang Technological University, Singapore

Correspondence: Andrea J. S. Stanaland, Department of Marketing Box 6917, College of Business & Economics, Radford University, Radford, Virginia, 24142, USA,

Received: April 10, 2015 Accepted: April 29, 2015 Online Published: May 1, 2015

doi:10.11114/smc.v3i1.809

URL: <http://dx.doi.org/10.11114/smc.v3i1.809>

## Abstract

Children are particularly vulnerable to the risks of going online, yet the profile of the child Internet user is becoming younger, particularly on social media. Parental mediation describes efforts by parents to translate the complexities of the physical/social environment as well as mass media into terms that children at various levels of cognitive development can understand. This exploratory study examined parental mediation strategies as predictors of parents' intention to control underage use of Facebook in Singapore, a country with high internet penetration but little data protection regulation. The study found that parents with mediation styles that were highest on Regulated mediation (Restrictive and Selective mediation) as well as parents whose eldest child was female showed the highest level of intentions to control underage Facebook usage. Additionally, the younger the age group of the eldest child in the family, the more likely parents were to express intentions to control Facebook usage.

**Keywords:** parental mediation, preteen facebook use, online risks, children social media

## 1. Introduction

### 1.1 Internet Risk & Privacy

Children are particularly vulnerable to the risks of going online-- a comprehensive study of children under age eighteen in the European Union (EU) found that sharing of personal information is the most common risky behavior among online teenagers, followed by online pornography, violent/hateful content, cyber bullying and meeting online contacts offline (Hasebrink, Livingstone, Haddon, & Olafsson, 2009; Livingstone & Bober, 2005; Livingstone & Haddon, 2009). With the evolution towards the interactive nature of Web 2.0, online risks are more than merely content-focused, but also result from interaction between people (Livingstone & Brake, 2010).

At the same time, the profile of the child Internet user is becoming younger, particularly on Facebook. It is stipulated in Facebook's "terms and conditions for use" that users need to be at least 13 years old before they are allowed to set up an account, which is a requirement driven by the United States Children's Online Privacy Protection Act (COPPA) (Facebook, 2011; Federal Trade Commission, 1998). However, it is common to find children 12 and under with Facebook accounts (Fodeman & Monroe, 2010; Livingstone et al., 2011; Magid, 2011). For example, in the EU 38% of 9-12 year olds have a Facebook profile, and a quarter of 9-12 year old social media users share personal information via a 'public' setting on their profiles (Livingstone et al., 2011). Evidence suggests that some of the risks associated with Facebook and Internet use is exacerbated for underage users (Sonck & de Haan, 2013). The American Psychological Association stated that "young children lack the cognitive skills and abilities of older children and adults," and thus represent a potentially vulnerable group of consumers when it comes to online privacy risks (Kunkel et al., 2004). Despite this, research in the UK (Livingstone et al., 2005) has found that parents substantially underestimate their children's negative experiences online and may be unaware of their children's potential need for guidance.

Parental mediation is the term used to describe an effort by parents to translate the complexities of the physical/social environment as well as mass media into terms that children at various levels of cognitive development can understand

(Desmond, Singer, & Singer, 1990). While prior research has addressed the influence of parental mediation strategies on children's online behavior (Livingstone & Helsper, 2008; Paus-Hasebrink, Bauwens, Durager, & Ponte, 2013) and health risks (Lwin & Saw, 2007), there is little research on parenting strategies to protect underage children in social media platforms specifically. This exploratory study addresses the issue by examining parental mediation strategies as predictors of parents' intention to control underage use of Facebook in Singapore, a country with high internet penetration but little data protection regulation.

In Singapore, where the current landscape includes a lack of legislation and regulation on data protection paired with high internet penetration (Infocomm Development Authority of Singapore, 2014), young users may be particularly vulnerable online. According to an Accenture Global Data Privacy & Protection survey, only 57% of companies in Singapore say they are obligated to protect consumers' personal information, which is significantly lower than the global average of 71% (Enterprise Innovation Editors, 2010). Beyond privacy and data protection issues, research has shown that children using Facebook encounter risks such as bullying, harassment, exposure to harmful content, theft of personal information, sexual grooming, violent behavior, encouragement to self-harm, and racist attacks (Choo, 2009; UK Council for Child Internet Safety, 2010).

### 1.2 Parental Mediation Strategies

Parents play a major role in protecting their children from online risks. Nairn & Monkogol (2007) and Rideout (2007) found most parents report confidence in monitoring their children's online activities, and in fact regulators take for granted that parents will intervene and augment the age-verification checks in Facebook to protect young children from using Facebook (Warmann, 2011). Since legal regulations in this sphere are difficult to formulate and enforce, policy makers rely substantially on increasing risk awareness among parents to protect children from online risks (Kirwil, 2009).

Such intervention may include physical monitoring to prevent underage registration and usage or it may come in various combinations of *Active* and *Regulated* mediation (Lwin, Stanaland, & Miyazaki, 2008). In *Regulated* mediation, or rule making, parents set limits for viewing or prohibit the viewing of certain content (Atkin, Greenberg, & Baldwin, 1991; Valkenburg, Krccmar, Peeters, & Marseille, 1999). In the instance of Facebook, parents could limit the number of hours of a child's Facebook usage, or restrict their access to the Facebook account. As would be expected, *Regulated* mediation in the form of parental limits has been shown to effectively reduce the time children, particularly younger children, spend with a particular medium (Desmond et al., 1990; Lin & Atkin, 1989; Truglio, Rosemarie, Oppenheimer, Huston, & Wright, 1996).

In *Active* mediation, the media content is discussed with a child. Thus, the child learns with the aid of an adult who presents and explains certain aspects of the environment that allows the child to attend to salient and pertinent stimuli (Klein, Nir-Gal, & Darom, 2000; Nathanson, 2001). It also enables a parent to be more certain about what the child experiences, help the child understand the medium and content, encourage the child to accept only messages they endorse, and intervene should there be undesirable content. (Dorr, Kovaric, & Doubleday, 1989). *Active* mediation also helps to enhance a child's learning process to become a more educated media consumer, as well as create schemas for interpreting experiences to allow the child to develop a template for comparing his/her own perception of similar activities that can be extended to instances when the parent is not around (Valkenburg et al., 1999).

Parents could also use varying combinations of *Active* and *Regulated* mediation strategies with their child (known as *Selective*, *Laissez Faire*, *Promotive*, or *Restrictive* mediation), which have been studied in the context of children's online information disclosure (Lwin et al., 2008; St. Peters, Fitch, Huston, Wright, & Easkins, 1991). For example, children who experience *Selective* mediation experience high levels of both *Active* and *Regulated* mediation, and prior research suggests that they disclose the least information online as they are not only subjected to restrictions, but also receive explanations likely to counteract influences of questionable practices (Zillmann, Bryant, & Huston, 1994). Children who receive *Laissez Faire* mediation experience little or no *Active* or *Regulated* mediation, and would be expected to divulge the most information as their parents neither educate them about the dangers of the internet or regulate their online behavior (Desmond et al., 1990; Wright, St. Peters, & Huston, 1990). Children receiving *Promotive* (only *Active*) and *Restrictive* (only *Regulated*) mediation would be expected to fall between the two categories, with children receiving *Promotive* regulation expected to disclose less information than *Restrictives*, as their actively mediated environment should enable them to better comprehend and respond to marketers' intentions even though they may spend more time online (Zillmann et al., 1994). We extend this work by considering how parental mediation strategies influence the way parents approach potential risks on Facebook, particularly with children under the official sign-up age of 13. How might these general strategies manifest themselves in behaviors to control children's Facebook activities?

Our exploratory research question is: Do parents with different mediation approaches differ in their intentions to control

underage Facebook use?

**2. Method**

Scales for measuring parental mediation strategies for restricting underage Facebook use were adapted from Lwin et al. (2008). After pilot-testing the instrument for refinements, the authors collected responses from a convenience sample of 114 parents/guardians of children below thirteen years old. Table 1 shows the final measurement items used.

Table 1. Final Construct Indicators

<u>Behavioral Intention</u>		
1.	I intend to stop my child from using FB until he/she is 13	
2.	I intend to restrict my children’s FB friends to only those I approve	
3.	I intend to monitor all my children’s FB activities	
4.	I intend to restrict my children’s FB privacy settings	
5.	I intend to teach my children about the dangers on FB	
<u>Parental Mediation Approach</u>		(Lwin et al., 2008)
1.	I set rules regarding the time of day my children can go online	Regulated mediation
2.	I set rules regarding the amount of time my children can spend online	Regulated mediation
3.	I use filters to restrict what my children can access on the Internet	Active mediation
4.	I remind my children not to give out personal information online	Active mediation
5.	I educate my children about the dangers of the internet (e.g. dealing with uncomfortable experiences)	Active mediation
6.	I explain to my children that strangers are not who they say they are	Active mediation
7.	I keep an eye on what my children are doing online (e.g. who you chat with)	Regulated mediation

**3. Results**

Correlation coefficients were computed among the scales listed above. A *p* value of less than .05 was required for significance. The results of the correlation analyses are presented in Table 2. Both active and regulated mediation approaches were significantly correlated with control of children’s Facebook use.

Table 2. Bivariate Correlations for Behavioral Intention to Restrict Underage Facebook Use

	Construct	Pearson Correlation
Parent Mediation Approaches	Regulated Mediation	.45*
	Active Mediation	.29*

\* *p* < .05 for bivariate correlations

Non-parametric correlation coefficients were also computed with age and gender of the children and respondents. In addition, parents’ competencies in using the Internet and Facebook were also investigated. The results of the correlation analyses are presented in Table 3. Among the factors investigated, the age group of the oldest child and the gender of both the oldest child and the oldest child under 13 years old were found to be significantly correlated with parents’ behavioral intention to restrict underage Facebook use.

Table 3. Bivariate correlation of demographics and Internet competence with parents' behavioral intention

	Kendall’s tau_b
Age Group of Oldest Child	-.21*
Gender of Oldest Child	.24*
Age of Oldest U13 Child	-.12
Gender of Oldest U13 Child	.16*
I am competent in using the Internet	-.09
I am competent in using Facebook	-.07
I am more competent than my primary school child in using Facebook	.05
Gender of Respondent	.03
Age Group of Respondent	-.06

\* *p* < .05 for bivariate correlations

**3.1 Two-Way ANOVA**

Two-way ANOVA test was conducted for parental mediation style. The mean values for active and regulated mediation were used to separate the respective data into ‘high’ and ‘low’ categories.

The mean and standard deviation for intention to control underage Facebook usage for the various combination of parenting mediation approaches are presented in Table 4. The ANOVA indicated no significant interaction between active and regulated mediation approaches  $F(1,109) = .477, \rho = .49 > .05, \text{partial } \eta^2 = .004$ . The main effects were significant for regulated mediation  $F(1,109) = 14.22, \rho = .00, \text{partial } \eta^2 = .16$ ; and for active mediation,  $F(1,109) = 5.65, \rho = .02 < .05, \text{partial } \eta^2 = .05$ .

Table 4. Parenting Styles and Intention to Control Underage Facebook Use

Regulated Mediation	Active Mediation	Parenting Style	Mean	Standard Deviation
Low	Low	Laissez Faire	4.36	.20
Low	High	Promotive	5.04	.28
High	Low	Restrictive	5.36	.25
High	High	Selective	5.73	.14

#### 4. Discussion

Selective mediation was found to be the approach strongest in supporting parents' Facebook control, followed by restrictive, promotive and laissez faire styles for children aged 10 to 12 years old. As a point of comparison, Lwin et al. (2008) found that active mediation approaches (which includes selective mediation) yield better results in terms of reducing information disclosure of young teens as compared to regulated mediation. In our study, parents with mediation styles that were highest on regulated mediation (restrictive and selective mediation) showed the highest level of intentions to control underage Facebook usage. Thus it may be important to educate and encourage parents to adopt active mediation strategies as well. While children are still young, parents are able to adopt physical control measures even if they are not as capable in using technological tools. However, this should not be done at the expense of developing active mediation practices because of the increased likelihood that children will disclose personally identifying information online as they get older if their parents focus primarily on a regulated mediation approach (Lwin et al. 2008).

Additionally, the gender and age group of the eldest child in the family had an effect: parents whose eldest child was female were more likely to express intentions to control Facebook usage; likewise, the younger the age group of the eldest child in the family, the more likely parents were to express intentions to control Facebook usage.

Parents may need additional education as to the risks facing boys online, and also as to the evolving risks facing teens above age 13, who are still vulnerable to online threats due to the limitations of their cognitive development, but at the same time are no longer protected by sweeping regulations such as the Children's Online Privacy Protection Act of 1998 in the United States. Prior research has shown, in fact, that older teens are likely to more at risk online in terms of willingness to disclose personally identifying information (Lwin et al. 2008).

The main limitation for this study lies in the convenience sampling used, namely a sample size of 114 parents in Singapore. Additionally, most respondents were well-educated professionals. It is possible that these limitations produced a more conservative estimate of how parents intervene to protect their children in online social media environments, and that the population at large might lag behind our sample.

#### References

- Atkin, D. J., Greenberg, B. S., & Baldwin, T. F. (1991). The home ecology of children's television viewing: Parental mediation and the new video environment. *Journal of Communication*, 41, 40-52. <http://dx.doi.org/10.1111/j.1460-2466.1991.tb02322.x>
- Choo, K. K. R. (2009). Online child grooming: a literature review on the misuse of social networking sites for grooming children for sexual offences. *Australian Institute of Criminology*. Retrieved from <http://www.aic.gov.au/documents/3/C/1/%7B3C162CF7-94B1-4203-8C57-79F827168DD8%7Drrp103.pdf>
- Desmond, R. J., Singer, J. L., & Singer, D. G. (1990). Family mediation: Parental communication patterns and the influences of television on children. J. Bryant J (Ed.), *Television and the American family*. (pp. 293-309). Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Dorr, A., Kovaric, P., & Doubleday, C. (1989). Parent-child coviewing of television. *Journal of Broadcasting and Electronic Media*, 33, 35-51. <http://dx.doi.org/10.1080/08838158909364060>
- Enterprise Innovation Editors. (2010). Singapore companies lag behind in data protection. *Accenture*. Retrieved from <http://www.enterpriseinnovation.net/content/singapore-companies-lag-behind-data-protection-accenture?page=0%2C0>
- Facebook. (2011). Statement of Rights and Responsibilities. <http://www.facebook.com/terms.php>
- Federal Trade Commission. (1998). COPPA - Children's Online Privacy Protection Act. <http://www.coppa.org/>
- Fodeman, D., & Monroe, M. (2010) Why Facebook Has It Wrong About Our Kids. <http://www.childrenonline.org/articles/WhyFacebookHasItWrongAboutKids.pdf>
- Hasebrink, U., Livingstone, S., Haddon, L., & Olafsson, K. (2009). Comparing children's online opportunities and risks across Europe: Cross-national comparisons for EU kids online. <https://lirias.kuleuven.be/bitstream/123456789/200382/1/ReportD3-2CrossnationalComparisonFINAL4.pdf>

- Infocomm Development Authority of Singapore. (2014). Household Access to Internet. <http://www.ida.gov.sg/Infocomm-Landscape/Facts-and-Figures/Infocomm-Usage-Households-and-Individuals#2>
- Kirwil, L. (2009). Parental mediation of children's internet use in different European countries. *Journal of Children and Media*, 3, 394-409. <http://dx.doi.org/10.1080/17482790903233440>
- Klein, P. S., Nir-Gal, O., & Darom, E. (2000). The use of computers in kindergarten, with or without adult mediation: Effects on children's cognitive performance and behavior. *Computers in Human Behavior*, 16, 591-608. [http://dx.doi.org/10.1016/S0747-5632\(00\)00027-3](http://dx.doi.org/10.1016/S0747-5632(00)00027-3)
- Kunkel, D., Wilcox, B. L., Cantor, J., Palmer, E., Linn, S., & Dowrick, P. (2004). Report of the APA task force on advertising and children. *American Psychological Association*, 40, 341-7.
- Lin, C. A., & Atkin, D. J. (1989). Parental mediation and rulemaking for adolescent use to television and VCRs. *Journal of Broadcasting and Electronic Media*, 33, 53-67. <http://dx.doi.org/10.1080/08838158909364061>
- Livingstone, S., & Bober, M. (2005). UK children go online. [http://www.lse.ac.uk/collections/children-go-online/UKCGO\\_Final\\_report.pdf](http://www.lse.ac.uk/collections/children-go-online/UKCGO_Final_report.pdf)
- Livingstone, S., & Brake, D. R. (2010). On the rapid rise of social networking sites: new findings and policy implications. *Children & Society*, 24,75-83. <http://dx.doi.org/10.1111/j.1099-0860.2009.00243.x>
- Livingstone, S., & Haddon, L. (2009). *EU Kids Online: Final Report*. London: EU Kids Online.
- Livingstone, S., & Helsper, E. (2008). Parental mediation and children's Internet use. *Journal of Broadcasting & Electronic Media*, 52, 581-99. <http://dx.doi.org/10.1080/08838150802437396>
- Livingstone, S., Ólafsson, K., & Staksrud, E. (2011). *Social Networking, Age and Privacy*. London: EU Kids Online.
- Lwin, M. O., & Saw, S. M. (2007). Protecting children from myopia: a PMT perspective for improving health marketing communications. *Journal of Health Communication*, 12, 251-268. <http://dx.doi.org/10.1080/10810730701266299>
- 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, 205-17. <http://dx.doi.org/10.1016/j.jretai.2008.04.004>
- Magid, L. (2011). Survey: 7.5M Facebook users below minimum age. *CNET News*. [http://news.cnet.com/8301-19518\\_3-20061298-238.html](http://news.cnet.com/8301-19518_3-20061298-238.html)
- Nairn, A., & Monkogol, D. (2007). Children and privacy online. *Direct, Data and Digital Marketing Practice*, 8, 294-308. <http://dx.doi.org/10.1057/palgrave.dddmp.4350063>
- Nathanson, A. I. (2001). Parent and child perspectives on the presence and meaning of parental television mediation. *Journal of Broadcasting and Electronic Media*, 45, 210-20. [http://dx.doi.org/10.1207/s15506878jobem4502\\_1](http://dx.doi.org/10.1207/s15506878jobem4502_1)
- Paus-Hasebrink, I., Bauwens, J., Durager, A. E., & Ponte, C. (2013). Exploring Types of Parent-Child Relationship and Internet Use Across Europe. *Journal of Children and Media*, 7(1), 114-132. <http://dx.doi.org/10.1080/17482798.2012.739807>
- Rideout, V. (2007). *Parents, Children & Media: A Kaiser Family Foundation Survey*. Washington D.C.: Henry J. Kaiser Family Foundation.
- Sonck, N., & de Haan, J. (2013). How the Internet Skills of European 11-16 Year Olds Mediate Between Online Risk and Harm. *Journal of Children and Media*, 7(1), 79-95. <http://dx.doi.org/10.1080/17482798.2012.739783>
- St. Peters, M., Fitch, M., Huston, A. C., Wright, J. C., & Eakins, D. J. (1991). Television and families: What do young children watch with their parents? *Child Development*, 62(6), 1409-1423. <http://dx.doi.org/10.2307/1130815>
- Truglio, C., Rosemarie, T., Oppenheimer, S., Huston, A. C., & Wright, J. C. (1996). Predictors of children's entertainment television viewing: Why are they tuning in? *Journal of Applied Developmental Psychology*, 17, 475-93. [http://dx.doi.org/10.1016/S0193-3973\(96\)90012-X](http://dx.doi.org/10.1016/S0193-3973(96)90012-X)
- UK Council for Child Internet Safety. (2010). Good practice guidance for the providers of social networking and other user-interactive services. [http://www.education.gov.uk/ukccis/download-link.cfm?catstr=latest\\_documents&downloadurl=SOCIAL%20NETWORKING%20GUIDANCE%202010%20FINAL%20REFRESHED.pdf](http://www.education.gov.uk/ukccis/download-link.cfm?catstr=latest_documents&downloadurl=SOCIAL%20NETWORKING%20GUIDANCE%202010%20FINAL%20REFRESHED.pdf)

- Valkenburg, P. M., Krcmar, M., Peeters, A. L., & Marseille, N. M. (1999). Developing a scale to assess three styles of television mediation: "instructive mediation", "restrictive mediation," and "social covieing". *Journal of Broadcasting & Electronic Media*, 43, 52-66. <http://dx.doi.org/10.1080/08838159909364474>
- Warmann, M. (2011). Mark Zuckerberg: children should be allowed to use Facebook. *The Telegraph*. <http://www.telegraph.co.uk/technology/facebook/8533429/Mark-Zuckerberg-children-should-be-allowed-to-use-Facebook.html>
- Wright, J. C., St. Peters, M., & Huston, A. C. (1990). Family television use and its relation to children's cognitive skills and social behavior. In: Bryant J, ed. *Television and the American family*. Hillsdale, New Jersey: Lawrence Erlbaum Associates, pp. 227-52.
- Zillmann, D., Bryant, J., & Huston, A. C. (1994). *Media, children and the family: Social ascientific, psychodynamic, and clinical perspectives*. Mahwah, New Jersey: Lawrence Erlbaum Associates.



This work is licensed under a [Creative Commons Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/).