

An Intervention Model for Cyberbullying Based on The General Theory of Crime and Routine Activity Theory: Model Validation Using Court Cases.

Chintha Kaluarachchi

Centre for Cyber Security Research and Innovation
RMIT University
Melbourne, Victoria
Email: c.kaluarachchi@deakin.edu.au

Matthew Warren

Centre for Cyber Security Research and Innovation
RMIT University
Melbourne, Victoria
Email: matthew.warren2@rmit.edu.au

Darshana Sedera

School of Business and Tourism
Southern Cross University
Gold Coast, Brisbane
Email: darshana.sedera@gmail.com

Abstract

Cyberbullying is a major social issue that has the potential to impact many people. This paper puts forward a conceptual model for cyberbullying intervention by following the cyberbully's journey from the conception of the bullying idea, identification of the target to the bullying action. The model is inspired by two competing theories: The General Theory of Crime and Routine Activity Theory. The aim of this paper is to extend previous research on the cyberbullying by introducing and validating an intervention model for cyberbullying using seven court cases. The study findings show that the model works from the secondary evidence from the court cases.

Keywords Cyberbullying, Adults, Socio-technical factors, Self-control, Crime opportunity.

1. Introduction

Cyberbullying is a pervasive behaviour that has had a lot of attention over the last decade.

The phenomenon is known as “an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and overtime against a victim who cannot easily defend him or herself” (Smith et al. 2008, p. 376). Cyberbullying can affect

someone's safety, self-perception, health and education rights (Elçi and Seçkin 2016) and can violate their sense of well-being and lifestyle (So and Lenarcic 2015). The ethical issue of cyberbullying is that the victims are being threatened by strangers in numerous ways such as sending threatening or insulting messages, spreading rumours, posting humiliating pictures, and revealing or stealing personal information (Kaluarachchi et al. 2020; Perren et al. 2012). This causes immense distress to people's lives (Sedera and Lokuge 2018; Sedera et al. 2017). According to a previous Australian study, victims of cyberbullying have experienced a greater level of social difficulties and higher levels of anxiety and depression than traditional bullying victims (Campbell et al. 2012). The cyberspace has provided weapons for cyberbullying (Harmon, 2004) and has become a real issue without rules and civilization (Shariff and Hoff 2007).

As a growing social phenomenon, myriad research has explored various aspects of cyberbullying. However, much of cyberbullying research is atheoretical or lacks of solid theoretical foundation (Barlett 2017; Kowalski et al. 2014). This theoretical underpinning possibly limits their application to the practice (Barlett 2017). Moreover, instead of explaining the phenomenon of cyberbullying; interventions must determine through theoretical reasoning. The aim of this paper is to extends previous research on the cyberbullying by introducing and validating an intervention model for cyberbullying using court cases.

2. Theory Building

This research employs the General Theory of Crime (Gottfredson and Hirschi 1990) and Routine Activity theory (Cohen and Felson 1979) to develop and validate an intervention model (Figure 1), which emulates the cyberbullying journey. GTC argues that individuals with low self-control are incapable of predicting long term consequences of their actions, so when presenting an opportunity, they involve delinquent behaviours. However general theory

of crime has not measured the effectiveness of guardianships as a protective factor against delinquent behaviours or crime. Hence, we integrate the routine activity theory. RAT highlights three essential factors that lead to the occurrence of a crime or deviant behaviours: (1) a likely offender, (2) availability of a suitable target, and (3) absence of a capable guardianship. We conceptualise as “an offender with low self-control and degradative attitude towards the victim increases the likelihood of cyberbullying”. We further incorporate “Capable guardianships” and “Crime opportunity” as moderators to test whether the crime opportunity and capable guardianships moderate the relationships. According to the prior research, it is very important to consider all human, social and technology use related factors to understand this complex societal challenge and these factors are known as socio-technical factors (Lowry et al. 2019). Although there is an endless supply of crime opportunities, we conceptualize the crime opportunity as having, four socio-technical environmental conditions such as 1) Relationships with a vulnerable to deviant or violent peers, 2) Cyber or traditional bullying perpetration and victimization, 3) Perceived anonymity, and 4) Time spent online including social media as potential factors that, if present, may influence cyberbullying perpetration.

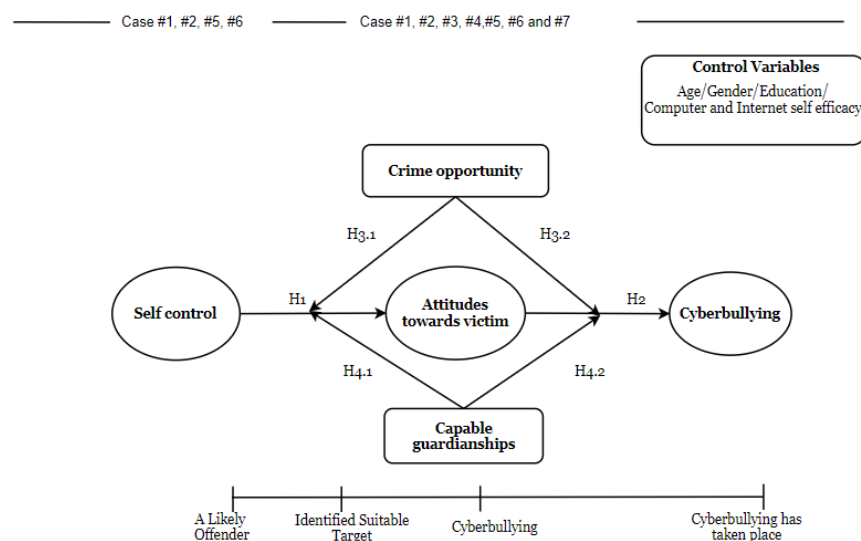


Figure 1: a-priory research model

This model also identifies the timeline of cyberbullying and places of clear interventions such as ‘decreasing crime opportunities’ or ‘harden prospective targets’ or ‘increase the capability and/or the number of guardians’ to prevent, mitigate and reduce cyberbullying.

The validation of the a-priory model employs extensive details from seven court cases on cyberbullying (Table 1). We described the corresponding case numbers on top of the model.

(Case and Year)	Salient Case findings	a-priory constructs
Case No 1) Cyberbullying Case of Ms. RS, 2013. (ABC News 2013)	One of the suspects had started dating a boy RS had been seeing, however, the girl "didn't like that and began to harass and ultimately torment RS." The girl allegedly sent RS menacing messages on Facebook and encouraging her to kill herself, police said.	1) No empathy and being impulsive 2) Negative feelings such as disliking the victim and revengefulness due to relationship conflict. 3) Time spent online including social media.
Case No 2) ADFA cadet court case, 2011 (Healley 2011)	The ADFA Case involve accusations the cadet known as Kate was secretly filmed having consensual sex with a male cadet and that it was broadcast to other cadets without her knowledge. Kate was also fined and confined to the base over separate incidents involving absenteeism and the consumption of alcohol on the same day.	1) No empathy and being impulsive 2) Sexual preference. 3) Involvement with deviant or violent friend. 4) Victim's behaviour also made her vulnerable to a suitable target. 5) ADFA culture.
Case No 3) Waitress killed herself after relentless bullying, 2010 (ABC News 2010)	A 19-year-old waitress committed suicide after she was relentlessly taunted and harassed at her workplace in Hawthorn, the Melbourne Magistrates Court has heard. The cafe's owner also pleaded guilty to failing to provide and maintain a safe workplace. waitress had an intimate relationship with one of the co-workers.	1) Negative feelings such as revengefulness/disliking the victim due to relationship conflict and workplace-related issues. 2) There were no safe working environment and capable guardianship.
Case No 4) Texting lands couple in court, 2011 (Healley 2011)	The police prosecutor told the court of a friendship break-up in November last year between Mr A and Ms M and another man caused to ring and send harassing messages to the other man.	1) Low empathy towards the victim. 2) Short temperedness. 3) Negative feelings such as disliking, revengefulness due to Friendship break-up.
Case No 5) Facebook troll, Mr BPH court case, 2011 (Healley 2011)	BPH is the first Australian convicted of "internet trolling" by plastering child pornography on the Facebook tribute pages of two slain Queensland schoolchildren. BPH, who was autistic, was retaliating against people who had been offensive toward him and a Facebook site designed to assist autistic people. Brisbane District Court was told BPH said he defaced the websites because he had been previously harassed online.	1) Offender is an autistic and diagnosis of autism. 2) Offender was retaliating against people who had been offensive toward him. 3) Time spent online including social media 4) Previously harassed online.
Case No 6) Mr JRV, 35, court case, 2011 (Healley 2011)	JRV, 35, has avoided jail for harassing women with sexually explicit emails, obscene phone calls and offensive text messages after he was unable to deal with their rejection of him. he has an inability to deal with rejection by women. Defence barrister said his client had post-traumatic stress disorder following a home invasion at his home in 2007. JRV also suffered from depression and anxiety.	1) Offender had post-traumatic stress disorder following a home invasion. 2) Short temperedness. 3) Suffered from depression and anxiety. 4) Negative feelings such as revengefulness towards the victim due to relationship conflicts.

Case No 7) Ex-lover 'menaced' diplomat court case, 2011 (Healley 2011)	The former girlfriend of the Macedonian ambassador to Australia, Ms PS, has been arrested for menacing the ambassador, breaking into his home and attempting to blackmail him. It was a domestic relationship that has gone sour and has escalated," she believed ambassador had been having an affair.	1) Lacking empathy and being impulsive. 2) Short temperedness. 3) Negative feelings such as revengefulness towards the victim due to relationship conflicts. 4) Time spent online including social media
--	---	---

Table 1: Analysis of Court Case findings

3. Discussion and Conclusion

The present study extends previous research on the cyberbullying by introducing and validating an intervention model for cyberbullying using seven court cases. We conceptualise a likely offender is a person with low self-control and when he/she got degradative attitude towards the victim increases the likelihood of cyberbullying. Most of the offenders, which have been studied under this study found to have traits related to low self-control such as low empathy and being impulsive towards the victims (Case #1, #2, #5 and #6) and short temperedness (Case #4, #6, #7). Other than that Mr JRV court case (Case #6) revealed that perpetrator had post-traumatic stress disorder following a home invasion and suffered from depression and anxiety. He was unable to deal with his former girlfriends' rejection of him and his low self-control reduces his power or ability to control over his emotions, behaviour, or actions. Mr BPH (Case #5) also was an autistic person and did not have an ability to control his emotions, behaviour, or actions. These findings show that offenders psychological state or disorders also affect their self-control which leads to deviant or violent behaviours. According to the RAT crime behaviours likely to occur when a suitable target is presented. In this study, we conceptualize "suitable targets" as an individual towards the bully/offender has got negative attitudes. The offender may involve cyberbullying perpetration because of negative attitudes towards his/her victim such as jealousy, disliking and revengefulness due to variety of factors such as sexual orientation, hatred based on dysfunctional relationships, work-related conflicts or hatred based on conflict between neighbours or friends (Walters et al. 2016). The study findings supported this by showing most of the offenders had negative

attitudes such as disliking, revengefulness towards their victims due to hatred based on relationship conflicts (Case #1, #2, #6 and #7), workplace-related conflicts (Case #3) and hatred based on friendship breakup (Case #4).

Researchers believe that opportunity has an important role to play in every class of offence, including violence (Clarke 2012). Gottfredson and Hirschi (2003) stated that opportunities to commit crimes are unlimited, but each specific crime needed a unique set of opportunities for the crime to be committed. Study findings also proved that opportunities such as association with deviant or violent friends (Case #2, #3, #4), cyber or traditional bullying perpetration and victimization (Case #5) and time spent online (Case #1, #2, #5, #7) could influence the cyberbullying perpetration. Given the limited number of case studies used for this analysis, we could not find evidences to support, all these socio-technical factors included in our model. However cyberbullying literature cited that perceived anonymity (Barlett 2017; Kowalski et al. 2019) also create opportunities for online harassment such as cyberbullying. In relation to the waitress case (Case #3), the cafe's owner also pleaded guilty to failing to provide and maintain a safe workplace. Lowry et al. (2019) shown that crime occurs in situations where crime or deviant behaviour is mentally and physically easy to perform and lack of monitoring simplify online crime behaviours. There was no safe working environment for waitress (Case #3) and no capable guardianships in her workplace to convince bullies to stop the bullying. Another interesting finding of ADFA cadet court case (#2) is that the victim's behaviour also made her vulnerable to a suitable target. The study findings show that the model works from the secondary evidence of court cases. Also, cases are from a range of socio-demographic conditions, hence it support control variables as well.

The best possible solution to prevent cyberbullying is to reduce crime opportunities via promoting healthy relationships for everyone, reducing degradative attitude towards the victims by teaching how to treat each other with dignity and respect, as well as implementing

suitable laws/policies/online mechanisms to reduce cyberbullying and then online bullying will no longer be a problem in our society.

References

- ABC News. 2010. "Waitress Killed Herself after Relentless Bullying." Retrieved 11/08/2020, from <https://www.abc.net.au/news/2010-02-05/waitress-killed-herself-after-relentless-bullying/2568726>.
- ABC News. 2013. "Teen Charged in Fatal Cyberbullying Case of Rebecca Sedwick to Remain in Jail." Retrieved 11/08/2020, from <https://abcnews.go.com/US/teen-charged-fatal-cyberbullying-case-rebecca-sedwick-remain/story?id=20580689>.
- Barlett, C. P. 2017. "From Theory to Practice: Cyberbullying Theory and Its Application to Intervention," *Computers in Human Behavior* (72), pp. 269-275.
- Campbell, M., Spears, B., Slee, P., Butler, D., and Kift, S. 2012. "Victims' Perceptions of Traditional and Cyberbullying and the Psychosocial Correlates of Their Victimization," *Emotional and Behavioural Difficulties* (17), pp. 389-401.
- Chen, L., Ho, S. S., and Lwin, M. O. 2017. "A Meta-Analysis of Factors Predicting Cyberbullying Perpetration and Victimization: From the Social Cognitive and Media Effects Approach." pp. 1194-1213.
- Clarke, R. V. 2012. "Opportunity Makes the Thief. Really? And So What?," *Crime Science* (1:1), p. 3.
- Cohen, L. E., and Felson, M. 1979. "Social Change and Crime Rate Trends: A Routine Activity Approach," *American sociological review*, pp. 588-608.
- Elçi, A., and Seçkin, Z. 2016. "Cyberbullying Awareness for Mitigating Consequences in Higher Education," *Journal of Interpersonal Violence* (34:5), pp. 946-960.
- Gottfredson, M. R., and Hirschi, T. 1990. *A General Theory of Crime*. Stanford University Press.
- Guo, S. 2016. "A Meta-Analysis of the Predictors of Cyberbullying Perpetration and Victimization," *Psychology in the Schools* (53:4), pp. 432-453.
- Healley, S. 2011. "The Human Faces Behind Cyberbullying Offences an Australian Case Study," P.o. Australia (ed.).
- Kaluarachchi, C., Warren, M., and Jiang, F. 2020. "Responsible Use of Technology to Combat Cyberbullying among Young People," *Australasian Journal of Information Systems* (24).
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., and Lattanner, M. R. 2014. "Bullying in the Digital Age: A Critical Review and Meta-Analysis of Cyberbullying Research among Youth," *Psychological Bulletin* (140:4), pp. 1073-1137.
- Kowalski, R. M., Limber, S. P., and McCord, A. 2019. "A Developmental Approach to Cyberbullying: Prevalence and Protective Factors," *Aggression and Violent Behavior* (45), pp. 20-32.
- Lowry, P. B., Zhang, J., Moody, G. D., Chatterjee, S., Wang, C., and Wu, T. 2019. "An Integrative Theory Addressing Cyberharassment in the Light of Technology-Based Opportunism," *Journal of Management Information Systems* (36:4), pp. 1142-1178.
- Perren, S., Corcoran, L., Cowie, H., Dehue, F., Garcia, D. J., Mc Guckin, C., Sevcikova, A., Tsatsou, P., and Völlink, T. 2012. "Tackling Cyberbullying: Review of Empirical Evidence Regarding Successful Responses by Students, Parents, and Schools," *International Journal of Conflict and Violence* (6), pp. 283-292.

- Sedera, D., and Lokuge, S. 2018. "Is Digital Hoarding a Mental Disorder? Development of a Construct for Digital Hoarding for Future IS Research," *International Conference on Information Systems*, San Francisco, USA: AIS.
- Sedera, D., Lokuge, S., and Chandrasekara, D. 2017. "Human Degradation with the Use of Social Media: A Theological Perspective," *The International Conference on Information Systems (ICIS2017)*, Seoul, South Korea: AIS.
- Shariff, S., and Hoff, D. L. 2007. "Cyber Bullying: Clarifying Legal Boundaries for School Supervision in Cyberspace," *International Journal of Cyber Criminology* (1:1).
- Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., and Tippett, N. 2008. "Cyberbullying: Its Nature and Impact in Secondary School Pupils," *Journal of Child Psychology and Psychiatry* (49:4), pp. 376-385.
- So, A., & Lenarcic, J. 2014. "Cross-cultural perspectives on cyberbullying through an ethical lens," (*pending publication*).
- Walters, M., Brown, R., and Wiedlitzka, S. 2016. "Causes and Motivations of Hate Crime," *Equality and Human Rights Commission research report* (102).

Acknowledgements

This research was supported by the Australian Government Research Training Program Scholarship and RMIT University CCSRI.