

**CyBIC:
THE PERSUASIVE TECHNOLOGY PROJECT
TO RAISE CYBERBULLYING AWARENESS**

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ABSTRAK

Di masa lalu pembuli selalu mengganggu pelajar di sekolah dan di mana pun mereka boleh. Kini, pembuli mempunyai alternatif baru untuk membuli: ruangan siber. Perkataan berbau lucah disebar melalui e-mel, yang dipasang pada Laman Jaringan Sosial (SNS) dan dihantar sebagai mesej teks. Kegiatan-kegiatan negatif tersebut dikenali sebagai *cyberbullying*. Disebabkan ini merupakan trend baru khususnya di Malaysia, fokus utama dari kajian ini adalah untuk meningkatkan kesedaran pelajar tentang *cyberbullying* dengan menggunakan *Persuasive Technology*. Kajian ini ditujukan untuk pelajar sekolah menengah. Metodologi yang akan digunakan adalah tinjauan (persoalan kajian), *Facebook Group* "CyBIC" (sebagai *Persuasive Technology*), dan forum yang melibatkan pensyarah dan pendidik, pelajar UUM, pelajar sekolah, pakar IT (Cyber Security Malaysia) dan kaunselor. Harapan dari projek ini adalah bahawa kesedaran fenomena *cyberbullying* akan diperluaskan ke sekolah-sekolah di Malaysia serta institusi pendidikan lain juga.

Kata kunci: *cyberbullying*, *Persuasive Technology*, perilaku, Laman Jaringan Sosial (SNS), Facebook

ABSTRACT

In the past bullies always disturb children in schools and wherever they can. Presently, bullies have a new site for bullying: cyber space. Nasty chat are spread through e-mail, posted on Social Networking Sites and sent as text messages. These negative activities are known as cyber bullying. Since this is a new trend especially in Malaysia, the main focus of this research is to raise the awareness of students concerning cyberbullying by using Persuasive Technology. It is aimed at secondary school students. The methodologies that will be used are survey (questionnaire), Facebook group *CyBIC* (as Persuasive Technology), and a forum (involving lecturers and educators, UUM students, school students, IT expert (Cyber Security Malaysia) and counsellor). The expectation of this project is that the awareness of cyberbullying phenomenon will be raised in Malaysian schools and perhaps other educational institutions as well.

Keywords: cyberbullying, persuasive technology, behaviour, social networking sites, Facebook

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CHAPTER ONE

INTRODUCTION

1.0 Introduction of the Study

First and foremost, this study provides an inclusive overview of cyberbullying; the problems caused by cyberbullies on the Internet and mobile phones. This study also holds ample background explanations of the research, problem statements, and research questions along with its objectives, significance of the research, research scope, problems, limitations and suggestion for future research. All the subtopics will be described in an overall review of this particular chapter. Together with that, this study simultaneously discovers persuasive technology, a new area of research that has the potential to assist in raising awareness of cyberbullying and other educational related issues as well. Persuasive computing technology is a computing system, device, or application intentionally designed to change a person's attitude or behaviour in a predetermined way (Fogg, 2003). For introduction, we will have a look at the web, Web 2.0, Social Networking, Social Network Sites and cyberbullying problem.

In 1989, Tim Berners-Lee invented the web and began the modern Internet era. The Internet is viewed as an 'irreversible innovation' of enhanced digital connectivity (Hoffman, 2004). The Internet refers to the entire connection of interconnected networks around the world that share a common addressing scheme (Fomenkov, at el.,

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REFERENCES

- Aftab, P. (2008). What methods work with different kinds of cyberbullies? Retrieved 27 May, 2010 from <http://www.stopcyberbullying.org/educators/howdoyouhandleacyberbully.html>
- Aftab, P. (2006). Stop Cyber bullying. WiredKids, Inc. Retrieved April 28, 2010 from http://www.stopcyberbullying.org/doc/what_is_cyberbullying_exactly.doc
- Andarajah A. (2004). "Cyber bully," *New Straits Times* retrieved on 18 September, 2010 from http://www.cybersecurity.my/en/knowledge_bank/news/2004/main/detail/904/index.html
- Arrington M. (2009). *Modeling The True Value Of Social Networks: 2009 Edition*. Retrieved: 6 July 2010 from <http://techcrunch.com/2009/06/04/the-true-value-of-social-networks-the-2009-updated>
- Ajzen, I. & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Englewood Cliffs, NJ: Prentice-Hall.
- Barabási, A. L. (2002). *Linked: The new science of networks*. Cambridge, MA: Perseus Publishing.
- Barack, A. (2005). Sexual harassment on the Internet. *Social Science Computer Review*, 23 (1), 77-92
- Barnes, S. (2006). *A Privacy Paradox: Social Networking in the United States*. First Monday, 11(9). Retrieved from <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1394>
- BBC News (2006). Government Acts on Cyber-bullies. Retrieved: 1 June, 2010 from http://news.bbc.co.uk/2/hi/uk_news/education/5210886.stm
- Beer, D. (2008). Social network(ing) sites...revisiting the story so far: A response to Danah Boyd & Nicole Ellison, *Journal of Computer-Mediated Communication*, 13 (2), pp. 516-529.
- Besag, V. (1989). *Bullies and victims in schools*. Milton Keynes, UK: Open University Press.
- Belsey, B. (2004). *What is cyberbullying?* Retrieved: 9 July 2010, from www.bullying.org/external/documents/ACF6F8.pdf
- Belsey, B. (2008). Always on, always aware. Retrieved: 13 June, 2010 from <http://www.cyberbullying.org/>
- Bobko, P (2001). Introductory text which Includes coverage of range restriction, trivariate correlation. *Correlation and regression, 2nd edition*. Thousand Oaks, CA: Sage Publications.

- Bogost, I. (2007). *Persuasive Games: The Expressive Power of Videogames*. MIT Press.
- Boyd, D. (2008). Why youth love social network sites: The role of networked publics in teenage social life. *Youth, Identity, and Digital Media*. The John D. and Catherine T. MacArthur Series on Digital Media and Learning. Retrieved: 16 June, 2010 from <http://www.mitpressjournals.org/doi/pdf/10.1162/dmal.9780262524834.119?>
- Boyd, D & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship [Electronic Version]. *Journal of Computer-Mediated Communication*, 13, 210–230. Retrieved: 22 July 2010 from <http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>
- Boyd, D., & Ellison, N.B. (2007). *Social network sites: Definition, history, and scholarship*. *Journal of Computer-Mediated Communication*, 13(1), article 11. Retrieved: 20 July 2010 from <http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>
- Boyd, D., & Heer J. (2006), *Profiles as Conversation: Networked Identity Performance on Friendster*. HICSS-39, Kauai, HI, 2006
- Campbell, M., (2005). Cyber-bullying - An old problem in a new guise, *Australasian Journal of Guidance and Counselling*, 15(1)
- Camp L. J., & Chien Y. T., (2000). *The Internet as Public Space: Concepts, Issues and Implications in Public Policy*, Readings in Cyberethics, eds. R. Spinello and H Tavani, Jones and Bartlett Publishers (Sudbury , MA) January 2001. Previously published in ACM Computers & Society, September 2000
- Cavana, R. Y., Delahaye, B. D. & Sekaran, U. (2001). *Applied business research qualitative and quantitative methods*. Melbourne: John Wiley & Sons.
- CBC News (2007). Majority of Canadian Teens in Survey Report Being Bullied Online. Canadian Broadcasting Company. Retrieved: 4 May, 2010 from <http://www.cbc.ca/canada/story/2007/04/18/cyber-bullying.html>
- CBC News (2007). Majority of Canadian Teens in Survey Report Being Bullied Online. Canadian Broadcasting Company. Retrieved: on 6 September, 2010 from <http://www.cbc.ca/canada/story/2007/04/18/cyber-bullying.html>
- Checkland, P. (1998). *Soft systems methodology in action*. Location: Wiley, ISBN 0471986054.
- Cheng, K. (2003). Monthly Program: March 11, 2003, Meeting Report. Using Computers to Change What People Think and Do: Insights into Captology. B.J. Fogg. Retrieved: 20 June 2010, from San Francisco Bay Area Chapter of ACM SIGCHI Website: <http://www.baychi.org/calendar/20030311>
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd edition). Hillsdale, NJ: Erlbaum.

- Coloroso, B (2003), *The Bully, the Bullied, and the Bystander* (New York: HarperCollins, 2003).
- Barcelona Reporter.com (2009), Cyber bullying 26.6 % of Spanish Adolescents Have Practiced It. Retrieved: 12 September, 2010 from <http://www.barcelonareporter.com/index.php?/news/comments/12997>
- Dearstyne, B. W. (2007). *Blogs, Mashups, & Wikis: Oh, my! Information Management Journal*, 41, 4, 25
- Deborah, R. (2008). Cyber bullying is a Real Problem in Australia. Australian Women Online, Retrieved: May 6, 2010 from <http://www.australianwomenonline.com/cyber-bullying-is-a-real-problem-in-australia>
- Department of Justice of Canada (2010-10-18). Canadian Human Rights Act. Retrieved: May 4, 2010 from <http://laws.justice.gc.ca/eng/H-6/page-3.html>
- Ellis, M. (2009), *Thousands of Kids Seek Help over Cyber bullying*, Mirror.co.uk. Retrieved: 3 September, 2010 from <http://www.mirror.co.uk/news/technology/2009/04/22/thousands-of-kids-seek-help-over-cyber-bullying-115875-21295822>
- Europa (2009). Safer Internet Day 2009 Commission Starts Campaign Against Cyber bullying,. Retrieved: 24 August, 2010, from <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/58>
- Fishbein, M & Ajzen, I. (1975). *I. Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Floyd J. Fowler, Jr. (1988). *Survey Research Methods*. Beverly Hills, CA: Sage Publications
- Fogg, B. J., & Eckles, D. (Eds.). (2007). *Mobile Persuasion: 20 Perspectives on the Future of Behavior Change*. Stanford, California: Stanford Captology Media.
- Fogg, B.J. (2003). *Persuasive Technology: Using Computers to Change What We Think and Do*, Morgan Kaufmann Publishers.
- Fogg, B. J. (2002). *Persuasive Technology: Using Computers to Change What We Think and Do*. Morgan Kaufmann Publishers.
- Fogg, B. J. (1998). Persuasive computers: perspectives and research directions. *Proceedings of CHI 1998*, ACM Press, 225-232 .
- Fomenkov, M., Keys, K., Moore, D., and Claffy, K.(2004). Longitudinal study of Internet traffic in 1998-2003. In *Proceedings of the Winter international Symposium on information and Communication Technologies* (Cancun, Mexico, January 05 - 08, 2004). WISICT, vol. 58. Trinity College Dublin, 1-6.

- Fovet, F. (2009). Impact of the use of Facebook amongst students of high school age with Social, Emotional and Behavioural Difficulties (SEBD). *Frontiers in Education Conference, 2009. FIE '09.*
- Govani, T. & Pashley, H., (2005). *Student awareness of the privacy implications when using Facebook*, Carnegie Mellon University. Retrieved: 24 July 2010 from <http://lorrie.cranor.org/courses/fa05/tubzhlp.pdf>
- Gross, R. & Acquisti, A. (2005). *Information revelation and privacy in online social networks* in *Proceedings of the 2005 ACM Workshop on Privacy in the Electronic Society*. New York: ACM Press, pp. 71-80.
- Grosso, William. (2003). Captology: A Bad Name for an Interesting Idea. Retrieved: 16 July 2010, from O'Reilly Developer Weblogs Web site: <http://www.oreillynet.com/pub/wlg/3364>
- Herring, S.C. (2002). Cyber violence: Recognizing and resisting abuse in online environments. *Asian women*. 14, 187-212.
- Hoffman, F. M., Vertenstein, M., Kitabata, H., White, J. B., Worley, P., Drake, J., & Cordery, M. (2004). Adventures in Vectorizing the Community Land Model. In *Proceedings of the 2004 Cray Users Group Meeting*, Knoxville, Tennessee. Retrieved on 23 July 2010 from <http://climate.ornl.gov/forrest/pubs/cug2004.pdf>
- Hinduja, S. & Patchin, J. (2010). *Bullying, Cyberbullying, and Suicide.* Forthcoming in *Archives of Suicide Research*, 14(3).
- Hinduja, S. & Patchin, J. (2009). *Bullying beyond the schoolyard: Preventing and responding to cyber bullying*. California, USA: Corwin Press.
- Hinduja, S. & Patchin, J. (2005). Research summary: Cyber bullying victimization. Retrieved: 3 June, 2010 from <http://www.cyberbullying.us>
- Rivers, I. & Noret, N. (2007). The Prevalence and correlates of Cyber bullying in Adolescence: Results of a five year cohort research. Presented at the British Psychological Society Annual Conference, York University, March 21, 2007. Retrieved: 12 June, 2010 from <http://www.cybermentors.org.uk>
- Scott, K. (2009). UK Legal System Unprepared for cyber-bullying. Retrieved on 10 September, 2010 from <http://www.wired.co.uk/news/archive/2009-01/26/uk-unprepared-for-cyber-bullying-cases-.aspx>
- Kowalski, R. M., Limber, S. P., & Agatston, P. W. (2008). *Cyber bullying: Bullying in digital age*. Malden, MA: Blackwell Publishing
- Kowalski, R., Limber, S., Scheck, A., Redfearn, M., Allen, J., Calloway, A.-M., (2005), *Electronic Bullying Among School-Aged Children and Youth* Poster presented at the annual meeting of the American Psychological Association. Washington, DC.

- Kubota, Y (2008). Cyber bullying common in Japan school, *Reuters*. Retrieved: 8 September, 2010 from <http://www.reuters.com/article/idUST25418420080416>
- Lenhart, A., & Madden, M. (2007). Teens, privacy, & online social networks, Retrieved: 5 June, 2010 from <http://www.pewinternet.org>
- Lenhart, A. (2007). Cyber bullying. Pew Internet & American Life Project, Washington, DC, Retrieved: 6 July, 2010 from <http://www.pewinternet.org/Reports/2007/Cyberbullying.aspx>
- Lenhart, A., Ling, R., Campbell, S., & Purcell, K., (2010), Teens and Mobile Phones, Pew Research Center's Internet & American Life Project, Washington, DC. <http://www.pewinternet.org/Reports/2010/Teens-and-Mobile-Phones.aspx>
- Lenhart, A., Madden, M., Macgill, A. R., & Smith, A. (2007). *Teens and social media*, Retrieved: 5 June, 2010 from: <http://www.pewinternet.org>
- Li, Q. (2006). Cyber bullying in schools: A research of gender differences. *School Psychology International*, 27(2), 157-170.
- Li, Q. (2007). Bullying in the new playground: Research into cyber bullying and cyber victimisation, *Australasian Journal of Educational Technology*, 23(4), 435-454 <http://www.ascilite.org.au/ajet/ajet23/li.html>
- Ellis, M. (2009). Thousands of Kids Seek Help over Cyber bullying. Retrieved 12 June, 2010 from <http://www.mirror.co.uk/news/technology/2009/04/22/thousands-of-kids-seek-help-over-cyberbullying-115875-21295822>
- Malaysian Psychiatric Association – MPA (2010). Bullying goes online. Retrieved on 7 September, 2010 from <http://www.psychiatry-malaysia.org/article.php?aid=1158>
- Microsoft Canada and Youthography Internet Safety (2009). Retrieved: 3 August, 2010 from <http://news.microsoft.ca/corporate/archive/2009/02/25/fact-sheet-microsoft-canada-and-youthography-internet-safety-survey.aspx>
- Miller, D. (2010). USF Undergraduate Research: Cyber bullying Not Just an American Issue. *USF News*. Retrieved: 1 August, 2010 from <http://usfweb3.usf.edu/absolutenm/templates/?a=2197&z=43>
- Montano, D. E., Kasprzyk, D., & Taplin, S. H. (1997). The Theory of Reasoned Action and the Theory of Planned Behaviour. In Glanz, K., Lewis, F. M., & Rimer B. K. (Eds.), *Health behaviour and health education: Theory, research, and practice* (2nd ed., pp. 85-112). San Francisco: Jossey-Bass.
- Nass, C., Fogg, B. J., & Moon, Y. (1996). Can Computers Be Teammates? *International Journal Of Human-Computer Studies*, 45(6), 669-678.
- National Academy Press (2002). Computer Science and Telecommunications Board, National Research Council, Youth, Pornography, and the Internet Retrieved at 224, www.nap.edu/openbook.php?isbn=0309082749&page=224

- Nielsen (2008a). Nielsen Media Research: Custom Local Analysis Reports. New York: Author. Retrieved on 12 July 2010 from http://en-us.nielsen.com/content/nielsen/en_us/industries/media.html
- Nielsen (2008b). Nielsen media research website: www.nielsenmedia.com. Retrieved 14 July 2010 from http://en-us.nielsen.com/content/nielsen/en_us/industries/media.html
- Oinas-Kukkonen Harri & Marja, H. (2008). A Systematic Framework for Designing and Evaluating Persuasive Systems. *Proceedings of Persuasive Technology: Third International Conference*, pp. 164-176.
- Oinas-Kukkonen, H., Hasle, P., Harjumaa, M., Segerståhl, K., Øhrstrøm, P. (Eds.). (2008). *Proceedings of Persuasive Technology: Third International Conference*. Oulu, Finland, June 4-6, 2008. Lecture Notes in Computer Science. Springer.
- Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention program. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (411-448). Hillsdale, NJ: Lawrence Erlbaum.
- Olweus, D. (1996). The revised Olweus bully/victim questionnaire. Bergen, Norway: Research Center for Health Promotion (HEMIL Center), University of Bergen. <http://corework.aaa267.k12.ia.us/files/24/Olweus%20Bullying%20questionnaire.pdf>
- O'Murchu, I., Breskin, J. G. & Decker, S. (2004), *Online Social and Business Networking Communities*, Conference on Artificial Intelligence (ECAI), Valencia, Spain.
- O'Reilly T. (2005). *What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software*. Retrieved: 5 June 2010 from <http://oreilly.com/web2/archive/what-is-web-20.html>
- Owen and Lee (1984) TBA
- Patsakis, C.; Asthenidis, A.; Chatzidimitriou, A.; (2009). Social Networks as an Attack Platform: Facebook Case Research. *Networks, 2009. ICN '09. Eighth International Conference on*.
- Peterson, L. (2010). Survey: Cyber bullying spreading throughout Asia. *The Tampa Tribune*. Retrieved: 19 September, 2010, from <http://www2.tbo.com/content/2010/apr/04/na-survey-cyberbullying-spreading-throughout-asia/>
<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/58>
- Pokin, S. (2007.). Pokin around: A real person, a real death. *The St.Charles Journal*. Retrieved: 1 May, 2010 from http://stcharlesjournal.stltoday.com/articles/2007/11/10/news/sj2tn20071110-1111stc_pokin_1.ii1.txt.

- Raskauskas, J., & Stoltz, A. D. (2007). Involvement in traditional and electronic bullying among adolescents. *Developmental Psychology*, 43, 564-575.
- Rivers, I. & Noret, N. (2007). The Prevalence and correlates of Cyber bullying in Adolescence: Results of a five year cohort study. Presented at the British Psychological Society Annual Conference, York University.
- Rollnick, S., Mason, P. & Butler, C. (1999) *Health behaviour change: A guide for practitioners*. Edinburgh: Churchill Livingstone.
- Rollnick, S., Allison, J., Ballasiotes, S., Barth, T., Butler, C., Rose, G. & Rosengren, D. (2002) Variations on a theme: Motivational interviewing and its adaptations. In: *Motivational interviewing: Preparing people for change*. Eds: Miller, W. and Rollnick, S. 2nd edition. New York: Guilford Press. 270-283.
- Rosenblum, D. (2007). What Anyone Can Know: The Privacy Risks of Social Networking Sites. *Security & Privacy*, IEEE 5(3):
- Sanford, V. (2004). Biosignals offer potential for direct interfaces and health monitoring. *IEEE Pervasive Computing* 2004,99-104.
- Salkeld, L. (2009). Facebook bully jailed: Death threat girl, 18, is first person put behind bars for vicious internet campaign. Retrieved: 1 August, 2010 from <http://www.dailymail.co.uk/news/article-1208147/First-cyberbully-jailed-Facebook-death-threats.html#ixzz0znXPR6Jp>
- School and Family Education about the Internet Act of 2009, S.1047. 111th Congress (2009) available at <http://thomas.loc.gov/cgi-bin/query/z?c111:S.1047>.
- Sekaran, U. (2003). *Research Methods For Business: A Skill Building Approach*. (4th ed). New York: John Wiley.
- Shariff, S. (2008). *Cyberbullying: Issues and solutions for the school, the classroom and the home*. New York: Routledge.
- Shaw, G., (2009). Cyber bullying on the rise in Canada: Survey. Canada.com. Retrieved on 4 June, 2010 from <http://www.canada.com/technology/Cyberbullying+rise+Canada+survey/1329272/story.html>
- Siu, C. (2004). *Pre-service teachers' attitudes about school bullying: A new perspective*. University of Calgary, Calgary
- News from Spain (2005). Spain Addresses Problem of School Bullying. Retrieved on 12 September, 2010 from <http://www.euroresidentes.com/Blogs/2005/04/spain-addresses-problem-of-school.htm>

- Strother, J. (2010). South Korean Students Battle Cyber-Bullying with Positive Comments. Retrieved: 2 August, 2010 from <http://www.voanews.com/english/news/asia/South-Korean-Students-Battle-Cyber-Bullying-with-Positive-Comments-89507477.html>
- Surdin, A (2009). In Several States, A Push to Stem Cyber-Bullying, The Washington Post. Retrieved 10 August, 2010 from <http://www.washingtonpost.com/wp-dyn/content/article/2008/12/31/AR2008123103067.html>
- Sydney Morning Herald, (2008). Cyber bullying an Issue for Australian Youth. Retrieved 1 May, 2010 from <http://www.smh.com.au/articles/2008/05/09/1210131251440.html>
- Sydney Morning Herald. (2008). Cyber bullying an Issue for Australian Youth. Retrieved 3 August, 2010 from <http://www.smh.com.au/articles/2008/05/09/1210131251440.html>
- Eek, T.S. (2009). A Big Sister Helps Students Cope with Bullying. UNICEF. Retrieved: August 6th, 2010 from http://www.unicef.org/infobycountry/malaysia_51549.html
- Eek, T.S. (2009). A Big Sister Helps Students Cope with Bullying. UNICEF. Retrieved on 12 September, 2010, from http://www.unicef.org/infobycountry/malaysia_51549.html.
- Telstra Foundation (2002). Telstra Annual Report 2009/2008. Website at <http://www.telstrafoundation.com.au/>
- The Commonwealth Criminal Code Act (1995), Sec. 474.17 Retrieved: 15 August, 2010 from http://www.austlii.edu.au/au/legis/cth/consol_act/cca1995115/sch1.html
- The Malaysian Computer Emergency Response Team (2009). *Virtual safety*. Retrieved: 14 July 2010 at <http://www.cybersecurity.my/en/index.html>
- Tseng, S. & Fogg, B.J. (1999). Credibility and Computing Technology, Communications of the ACM (42:5), 1999, pp. 39-44.
- Trochim, W. & Land, D. (1982). Designing Designs for Research. The Researcher, 1, 1, 1-6. Internet article. <http://trochim.human.cornell.edu/kb/desdes.htm>
- Tufekci, Z. (2008). *Can you see me now? Audience and disclosure regulation in online social network sites*, Bulletin of Science, Technology and Society, vol. 28, no. 1, pp. 20–36
- United Kingdom Education and Inspections Act (EIA) of 2006, available at http://www.Englandlegislation.hmso.gov.uk/acts/acts2006/ukpga_20060040_en_1

- Vagias, W.M. (2006). Likert-type scale response anchors. Clemson International Institute for Tourism & Research Development, Department of Parks, Recreation and Tourism Management.
- Weaver, A. C. & B. B. Morrison (2008). *Social Networking. Computer* 41(2): 97-100.
- Willard, N. (2007). Cyber bullying and cyberthreats: Responding to the challenge of online social aggression, threats, and distress. Press. Retrieved 1 May, 2010 from <http://www.ctap4.org/cybersafety/Documentaton.htm>
- Willard, N. (2007). *Cybersafe kids, cyber-savvy teens: Helping young people learn to use the Internet safely and responsibly*, California: Jossey-Bass.
- Kubota, Y. (2007). Cyber bullying drives students over the edge. *The New Zealand Herald*, retrieved on 2 September, 2010 from http://www.nzherald.co.nz/technology/news/article.cfm?c_id=5&objectid=10475743