2018

Scraping the Bottom of the Barrel: Why It is No Surprise That Data Scrapers Can Have Access to Public Profiles on LinkedIn

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Gaming the Law: Adolescents and the Harmful Digital Communication Act—Employing an Educational Approach

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ABSTRACT

In 2015, the Parliament of New Zealand enacted the Harmful Digital Communication Act (HDCA) with the aim of eliminating harm caused by digital communications.[1] After a year of HDCA's partial enforcement, a relatively large number of cases under Section 22, which concerns harm caused by posting digital communication,[2] have been filed.[3] Under this section, anyone over the age of fourteen can potentially face sanctions,[4] and the first person to be convicted under the Act was an eighteen-year-old.[5] This article highlights the legal rights and obligations that adolescents need be aware of. It also presents an online game, "Privacy Games" at www.privacygame.com, which uses intuitive and image-based online scenarios to teach adolescents about online privacy and safety.

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1. Harmful Digital Communications Act 2015, s 3 (N.Z.), http://www.legislation.govt.nz/act/public/2015/0063/latest/whole.html.

2. *See id.* s 22.

3. *See* David Harvey, *Prosecutions Under the HDC Act*, Auckland Dist. L. Society (Aug. 6, 2017), http://www.adls.org.nz/for-the-profession/news-and-opinion/2016/8/26/prosecutions-under-the-hdc-act.

4. Oranga Tamariki Act 1989, s 272 (N.Z.), http://www.legislation.govt.nz/act/public/1989/0024/118.0/DLM147088.html.

5. *Man Convicted Under New Cyber Bullying Legislation*, N.Z. Herald (Apr. 2, 2016, 10:38 AM), http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11615758.

I. INTRODUCTION

As the internet becomes easily accessible through abundant mobile devices, concerns about malicious use of communication technologies grow. Factors accounting for the pervasiveness of harm of digital communications include: (1) cyberspace allows individuals to create multiple online personae and remain anonymous; and (2) it allows individuals to disseminate information instantaneously worldwide while remaining at home.[6] Moreover, online social networks are particularly prone to privacy concerns as user information can be searched and copied.[7] People can simply give out too much information through their use.[8] In particular, digital media and internet communication technologies are associated with various risks for children, including: online harassment, sexual exploitation, risks related to privacy and the mass collection of personal data, inattention in publishing private information, targeted marketing by product placement in games or websites,[9] and even by "freemium" games, where the initial download is free but advancing in the game may require real currency, or in-game currency.[10]

Among various amendments to preexisting legislation,[11] New Zealand legislators responded to such concerns by issuing the HDCA to "deter, prevent, and mitigate harm caused to individuals by digital communications,"[12] and to "provide victims of harmful digital communications with a quick and efficient means of redress."[13] But, as the New Zealand Law Commission rightly pointed out in its report on harmful digital communications that preceded the HDCA, "amending the law and introducing new offences will not be enough . . . Unless the law is understood by citizens, consistently en-

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6.   DAVID HARVEY, INTERNET.LAW.NZ 115–16 (4th ed. 2016).

7.   *See* Gehan Gunasekara & Alan Toy, *MySpace or Public Space: The Relevance of Data Protection Laws to Online Social Networking*, 23 N.Z. UNIVERSITIES L. REV. 191, 194 (2008).

8.   *See id.* at 193.

9.   COMM. ON THE RIGHTS OF THE CHILD, REP. OF THE 2014 DAY OF GENERAL DISCUSSION "DIGITAL MEDIA AND CHILDREN'S RIGHTS" ¶¶ 66–75 (2014), http://www.ohchr.org/Documents/HRBodies/CRC/Discussions/2014/DGD_report.pdf (last visited Mar. 21, 2018); *see also* OECD COUNCIL, THE PROTECTION OF CHILDREN ONLINE, RECOMMENDATION OF THE OECD COUNCIL, REPORT ON THE RISKS FACED BY CHILDREN ONLINE AND POLICIES TO PROTECT THEM (2012), https://www.oecd.org/sti/ieconomy/childrenonline_with_cover.pdf.

10.   Adele Gautier, *Cyberchild*, N.Z. MARKETING MAG., July 2013 at 11–15.

11.   *See* Privacy Act 1993 (N.Z.); *see also* Harassment Act 1997 (N.Z.).

12.   Harmful Digital Communications Act 2015, s 3(a) (N.Z.).

13.   *Id.* s 3(b).

forced, and its remedies meaningfully applied, it is of limited value."[14] In sum, changes in the law without adequate education will not be successful.[15]

This article examines the New Zealand Law Commission's recommendation on education. It discusses the implementation of the HDCA among adolescents who are savvy internet users but also a group vulnerable to the harms identified in the HDCA. The discussion focuses on adolescents because even though adults and children are both facing online harms, adolescents are more often overlooked, and thus more vulnerable than adults and children. In addition, the article describes an online educational game based on the theoretical framework of an education-based approach to compliance.[16] Research has been performed on the social and psychological impacts of cyber harm, and in particular, cyberbullying in New Zealand.[17] But, even that body of scholarship is not sufficiently extensive. Research regarding the legal and regulatory aspects for children is even scarcer. While there are programs aimed at education about cyber harm,[18] there is little evidence about their efficacy or use by their target audiences.

To tackle these issues, the article develops as follows. First, the article highlights the risks related to harmful digital communications among adolescents. Second, the article discusses the need for educating adolescents about online safety. Third, the article describes "Privacy Games" (privacygames .com), an intuitive, image-based online game directed at teaching adolescents about privacy and online safety. Finally, the article concludes with suggesting how to move forward with legal education for adolescents related to digital communications.

II.   CHILDREN AND ADOLESCENTS ONLINE

Communication technologies are now thoroughly embedded in the daily life of children and adolescents. In New Zealand, adolescents are accessing content across an increasingly wide range of media channels.[19] Statistics from a recent survey on the household use of digital technology in New Zea-

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14.   Law Commission, Harmful Digital Communications: The Adequacy of the Current Sanctions and Remedies ¶ 7 (Ministerial Briefing Paper 2012).

15.   *Id.* ¶ 10.

16.   Nachshon Goltz, The Limits of Regulation: A Case Study of Virtual and Intangible Harm (Nov. 2016) (unpublished Ph.D. dissertation, York University), https://yorkspace.library.yorku.ca/xmlui/handle/10315/33460.

17.   *See* Ilene Berson & Micheal Berson, *Challenging Online Behaviors of Youth: Findings from a Comparative Analysis of Young People in the United States and New Zealand*, 23 Soc. Sci. Computer Rev. 29 (2005).

18.   *See Web Rangers NZ*, Netsafe, https://netsafe.org.nz/webrangers/ (last visited Mar. 21, 2018).

19.   *Children's Media Use Study: How Our Children Engage with Media Today (2015)*, Broadcasting Standards Auth., https://bsa.govt.nz/images/assets/ Research/Childrens_Media_Report_2015_FINAL_for_publishing_2.pdf.

land indicated that adolescents are accessing the internet with an increasing frequency (93 percent of 15–24 year-olds are internet users) via various access points (33 percent use desktop computers; 65 percent use laptops; 11 percent use tablets; 30 percent use smart phones; 8 percent use game machines) and with a continuing trend towards mobile access (58 percent access the internet via cell phones and 52 percent via Wi-Fi connections).[20]

Going online brings opportunities and risks, which are not evenly distributed among adolescents.[21] Research indicates there is no simple definition of vulnerability. Rather, "many factors combine to render some children vulnerable to online risk, under particular circumstances, and with diverse consequences."[22] For example, the European Union (EU) Kids Online Project found that when investigating possibly risky online behaviors, such as sexting, the broader cultural context matters.[23] Specifically, variations in risks between genders in different EU countries were partly explained by traditional values. In more traditional countries, boys were more likely to engage in sexting; in less traditional countries, the differences between genders were less pronounced.[24]

The above finding raises questions about what is unique about the New Zealand cultural context, in particular, with regard to Mâori and Pacific Island peoples. For example, in its aforementioned report on harmful digital communications, the New Zealand Law Commission found that a higher proportion (32 percent) of Mâori and Pacific Island respondents reported being "extremely concerned" about harmful speech compared to the general population (20 percent of the total sample).[25] Also, in 2013, Statistics NZ noted specific patterns of use in Mâori and Pacific Island peoples[26] that suggests

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20. *Household Use of Information and Communication Technology: 2012*, Stats NZ (Apr. 22, 2013), http://archive.stats.govt.nz/browse_for_stats/indus try_sectors/information_technology_and_communications/HouseholdUseof ICT_HOTP2012.aspx.

21. Sonia Livingstone et al., Children, Risk and Safety on the Internet: Research and Policy Challenges in Comparative Perspective 45 (2012).

22. Sonia Livingstone & Tink Palmer, UK Council for Child Internet Safety, Identifying Vulnerable Children Online and What Strategies Can Help Them 9 (2012), http://childnetsic.s3.amazonaws.com/downloads/ Research_Highlights/Vulnerable_children_report_final.pdf.

23. Susanne E. Baumgartner et al., *Does Country Context Matter? Investigating the Predictors of Teen Sexting Across Europe*, 34 Computers in Hum. Behav. 157, 161 (2014).

24. *Id.* at 157.

25. Harmful Digital Communications: The Adequacy of the Current Sanctions and Remedies, *supra* note 14.

26. *See Telephone and Internet Access in the Home*, Stats NZ (Mar. 28, 2018), http://archive.stats.govt.nz/browse_for_stats/snapshots-of-nz/nz-social-indica tors/Home/Social%20connections/phone-internet-access.aspx.

online safety approaches need to be tailored for their purposes. This is also supported by research, such as that by O'Carroll, into how Rangatahi Mâori utilize social networking sites to attain and maintain relationships and construct identity.[27] It is important that Tamariki Mâori and Pacific Islanders grow up to become digitally capable citizens in accordance with their own language and tikanga.

A. Online Harassment and Cyberbullying

Online harassment occurs when one person sends unwanted, obscene, abusive, threatening messages, via email, instant messages, social networks, and posts.[28] Online harassment can also involve spreading fraudulent emails, hostile posts, and images of the victim.[29] Cyberbullying is a subset of online harassment that requires "intent to harm" which may be absent from harassing behaviors.[30] Forms of such harassment include texting, social media, and other forms of online interaction.[31] Cyberbullying is not a new phenomenon; rather communication technologies have given bullies new, unsupervised cyberspaces.[32] Indeed, bullying is about behavior, not technology, though the latter may make it much easier to carry out and harder to avoid.[33]

A 2005 survey about online interactions in New Zealand and the United States suggested that teenagers engage in risky behaviors, such as meeting a person whom they have only talked with online.[34] Early on it was assumed that many adolescents took online risks because they were unaware of poten-

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27. Acushla Deanne O'Carroll, *Virtual Whanaungatanga: Mâori Utilizing Social Networking Sites to Attain and Maintain Relationships*, 9 ALTERNATIVE: INT'L J. INDIGENOUS PEOPLES 230, 234–37, 242 (2013).

28. DAVID HARVEY, CYBERSTALKING AND INTERNET HARASSMENT: WHAT THE LAW CAN DO 1–2 (2003), http://victimsofcrime.org/docs/Information%20Clear inghouse/Cyberstalking%20and%20Internet%20Harassment%20What%20the %20Law%20can%20do.pdf?sfvrsn=0.

29. *Id.*

30. *See id.* at 5, 14.

31. *See id.* at 11. Harvey's chapter on the HDCA looks at cyberbullying although only classifies treatment of minors as such.

32. A. WAYNE MACKAY, NOVA SCOTIA TASK FORCE ON BULLYING AND CYBERBULLYING, RESPECTFUL AND RESPONSIBLE RELATIONSHIPS: THERE'S NO APP FOR THAT 12 (Nova Scotia Task Force on Bullying and Cyberbullying, 2012), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2123494.

33. Jaylan Boyle, *Safety in the Internet Age: From 'Acceptable' to 'Responsible' Use*, 94 N.Z. EDUC. GAZETTE (Jul. 13, 2015), https://gazette.education.govt.nz/ articles/1H9crV-safety-in-the-internet-age-from-acceptable-to-responsible-use/.

34. Ilene Berson & Micheal Berson, *Challenging Online Behaviors of Youth: Findings From a Comparative Analysis of Young People in the United States and New Zealand*, 23 SOC. SCI. COMPUTER REV. 29, 30 (2005); *see also* Livingstone & Palmer, *supra* note 22, at 4.

tial consequences. But, the potential risks facing children "come into play at different stages of a child's development and thus vulnerability is not a static issue but one that needs contextualising within the emotional, psychological, and physical developmental stages of childhood."[35] For example, researchers highlighted that the way in which adolescents use media, and hence incur in the related risk, is connected with the stage of their psychological development.[36] Indeed, Heinriksen, and Foehr show that media use is important for contemporary adolescents, and as such, some risk exposure is likely to be an inevitable part of growing up.[37]

Several studies assessed the risks related to children and adolescents' online behaviors related to cyberbullying and online harassment in New Zealand. The Royal Australian and New Zealand College of Psychiatrists stated that while there were obvious social and educational benefits to children using online technology, the risks included cyberbullying, exposure to violent or sexualized content, and possible addictive behaviors.[38] Rates of bullying for people in their late teens may be as high as 46 percent,[39] and it has been linked to adolescent suicides.[40]

Fenaughty and Harré's research based on a survey of New Zealand teenagers found that of the participants who reported online harassment in the prior year, half (53 percent) reported the harassment was distressing, with mobile phone harassment being more distressing and more common than internet harassment.[41] Indeed, text bullying as a subset of cyberbullying is prevalent due to the widespread ownership of cellphones.[42] This type of behavior is hard to detect, easy to perpetrate, can happen anywhere, and may be impulsive.

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35. Livingstone & Palmer, *supra* note 22, at 4.

36. *See* Donald F. Roberts et al., *Adolescence, Adolescents, and Media*, *in* 2 HANDBOOK OF ADOLESCENT PSYCHOL. 314, 329, 331 (Richard M. Lerner & Laurence Steinberg eds., 3d ed. 2009).

37. *See id.*

38. *Impact of Media on Children*, 19 AUSTRALIAN NURSING J. 42–43 (2012).

39. Jaime Morton, *Rates of Cyber Bullying in New Zealand Alarming*, N.Z. HERALD (Mar. 28, 2016 5:30 AM), http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11612551.

40. John Fenaughty & Niki Harré, *Factors Associated with Distressing Electronic Harassment and Cyberbullying*, 29 COMPUTERS IN HUM. BEHAV. 803 (2013).

41. *Id.*

42. *See* Juliana Raskauskas & Jane E. Prochnow, *Text Bullying in New Zealand: A Mobile Twist on Traditional Bullying*, 16 N.Z. ANN. REV. EDUC. 89, 94 (2007).

Cyberbullying can take many forms.[43] It might start in one format (such as texting) and continue through other formats such as the internet.[44] Mobile technology is seen as an essential part of everyday life, but concerns are being raised about the degree of dependence by teens on their devices.[45] In addition, anonymity makes cyberbullying easier.[46] The lack of visual cues causes social problems due to miscommunication.[47] Further, cyberbullying can be facilitated by the victims being reluctant to discuss the bullying because they do not want to be seen as a snitch and because of the anonymity of this type of bullying.[48]

B.   Prevention and Risk Management

Social support structures are crucial to minimize online risks.[49] Troubled youth who are alienated or depressed are more at risk for being victimized and exploited online by strangers because socially marginalized adolescents may be more vulnerable online.[50]

The key factor determining whether marginalized adolescents experience harm from exposure to online risks is the type of support structures available to them, one of which is a supportive and caring environment.[51] Youthline New Zealand's report stated: "[t]hose who were not supported in the way they needed were significantly more likely to have issues with self-esteem, being accepted, peer pressure, suicide, eating disorders, drugs, sexual abuse, spirituality and gender."[52] Moreover, a 2013 thesis suggested that on-

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43.   *See* James E. Sanderson, A Cross-Cultural Examination of Personality Factors Associated with Text Bullying in 13–14-Year-Old Girls 1 (2009) (unpublished M.A. thesis, Massey University) (on file with Massey University).

44.   *See id.* at 10–12.

45.   *See id.* at 9.

46.   *See id.* at 12–13.

47.   *See* M. A. Vacaru et al., *New Zealand Youth and Their Relationships with Mobile Phone Technology*, 12 Int'l J. Mental Health & Addiction 572, 578 (2014).

48.   *See* Gillian M. Harrison, Should I Tell on My Peers? Student Experiences and Perceptions of Cyberbullying 12, 33–34 (2013) (unpublished M.A. thesis, Massey University) (on file with Massey University).

49.   *See* Kimberly J. Mitchell et al., *Risk Factors for and Impact of Online Sexual Solicitation of Youth*, 285 J. Am. Med. Ass'n 3011, 3013 (2001).

50.   Sonia Livingstone, *The Participation Paradigm in Audience Research*, 16 Comm. Rev. 21, 27 (2013); *see also id.*

51.   *See* Sonia Livingstone & Brian O'Neill, *Children's Rights Online: Challenges, Dilemmas and Emerging Directions*, 24 Minding Minors Wandering The Web: Regulating Online Child Safety 19, 22 (S. van der Hof et al. eds., 2014).

52.   *The State of the Generation*, Youthline, 2014, at 5.

line interaction was, overall, positive for adolescents.[53] In fact, it was parental attitudes that had a detrimental impact upon online interaction and wellbeing.[54] Indeed, there may be a relationship between parenting styles, risk-taking behavior, and cyberbullying, with a more permissive parenting style leading to a greater likelihood of risky behavior and being bullied.[55]

But, it should be considered that adults and adolescents typically participate in the online environment in very different ways.[56] Adults' and adolescents' views of the online experience also differ in important ways around the perception and management of online risks.[57] Parents might find it difficult to check on their children's online behaviors.[58] Along with the growing use of computers, tablets, and smartphones, parents are increasingly struggling to limit their children's use of screen devices, and checking what their children are viewing online.[59] Similar findings have been reported in a study on the contrasting attitudes and behaviors of parents and teens in the United States.[60] When it comes to monitoring teens' online activity, a substantial gap

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53. *See* Clare Barczak, Adolescent Internet Use: An Exploratory Analysis of Adolescent and Parent Behaviours and Attitudes in Relation to the Internet (Nov. 22, 2012) (unpublished M.S. Thesis University of Otago) (on file with University of Otago).

54. *See id.* at 87.

55. *See* Sonia Livingstone & Ellen J. Helsper, *Parental Mediation and Children's Internet Use*, 52:4 J. Broadcasting & Electronic Media 581, 596 (2008); Matthew S. Eastin et al., *Parenting the Internet*, 56 J. Comm. 486, 486 (2006); Maialen Garmendia et al., *The Effectiveness of Parental Mediation*, *in* Children, Risk and Safety on the Internet 229, 229 (Sonia Livingstone et al. eds., 2012); Margaret K. Nelson, Parenting out of Control 2 (2010); Albert Kienfie Liau et al., *Parental Awareness and Monitoring of Adolescent Internet Use*, 27 Current Psychol. 217, 218 (2008); Laura M. Padilla-Walker et al., *Walking the Walk: the Moderating Role of Proactive Parenting on Adolescents' ValueCongruent Behaviors*, 35 J. Adolescence 1141, 1141–42; Rosemary Carson, Adolescent Cyberbullying in New Zealand and the Implications of Parenting Styles 4 (2014) (unpublished M.A. theses, University of Canterbury) (on file with University of Canterbury).

56. Harmful Digital Communications: The Adequacy of the Current Sanctions and Remedies, *supra* note 14, at 35.

57. *See* Family Online Safety Institute, *The Online Generation Gap: Contrasting Attitudes and Behaviors of Parents and Teens*, SAFEKIDS.com 2 (Nov. 14, 2012), http://safekids.com/pdfs/fosireport2012.pdf [hereinafter *The Online Generation Gap*].

58. Shane N. Phillipson et al., *ASG Parent's Report Card 2016: New Zealand Parents Perception of the State of Education*, ASG 9 (2016), https://www.asg.com.au/doc/default-source/New-Zealand/asg-parents-report-card-nz_online.pdf?sfvrsn=2.

59. *Id.*

60. *See The Online Generation Gap*, *supra* note 57, at 1.

exists between how many teens say their parents monitor their online activities and their parents' reported oversight.[61] Parents also claim to be more informed about their teens' online activities than teens believe them to be.[62] But, use of social media websites exposed the greatest gaps between teens' online activities and parents' knowledge of these activities.[63]

Adults may never find out about the challenges adolescents experience online because they use the internet and online communications in different ways than adolescents.[64] Therefore, it is crucial to look at online harassment, cyberbullying, prevention, and risk management from the point of view of children and adolescents.

III.   THE NEED FOR LEGAL EDUCATION

HDCA was enacted utilizing many of the recommendations of the New Zealand Law Commission's Harmful Digital Communication Report.[65] The HDCA aims to eliminate harms caused by digital communications.[66] Despite widespread recognition of the need to do something, there have been questions about the degree to which the HDCA will function as intended.[67] After a year of being partially in force there have been a relatively large number of cases under Section 22 of the HDCA, an indication that online harm is more

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61.   *Id.* at 2.

62.   *Id.*

63.   *Id.*

64.   John Joseph Fenaughty, Challenging Risk: NZ High-school Students' Activity, Challenge, Distress, and Resiliency, within Cyberspace ii, 18, 60, 67 (2010) (unpublished Ph.D. dissertation, University of Auckland) (on file with the University of Auckland Library), https://researchspace.auckland.ac.nz/bitstream/handle/2292/6775/whole.pdf%3Fsequence%3D8.

65.   Harmful Digital Communications Act 2015, s 3(a) (N.Z.).

66.   *Id.*

67.   Rosa McPhee, Sticks and Stones May Break My Bones but Cyberbullying Is Illegal – Is Cyberbullying a Crime, and Should It Be 48 (Oct. 2014) (unpublished LLB dissertation, University of Otago), http://www.otago.ac.nz/law/research/journals/otago085112.pdf; Stephanie Frances Panzic, Legislating for E-Manners: Deficiencies and Unintended Consequences of the Harmful Digital Communications Act 19 (Oct. 2014) (unpublished LLB dissertation, University of Auckland), https://internetnz.nz/sites/default/files/Stephanie%20Panzic%20Completed%20Dissertation%2023%20October_1.pdf; Claudia Smith, Revenge Porn or Consent and Privacy: An Analysis of the Harmful Digital Communications Act 2015 at 3 (2015) (unpublished LLB dissertation, Victoria University of Wellington) (on file with the Victoria University of Wellington Library system), http://researcharchive.vuw.ac.nz/xmlui/bitstream/handle/10063/5393/paper.pdf?sequence=1.

prevalent in society at large than was anticipated.[68] Anyone over the age of fourteen can potentially face sanctions[69] and the first person to be convicted under the HDCA was an eighteen-year-old.[70] This highlights the need for adolescents to be aware of, and engaged with, their legal rights and obligations under the HDCA. Technology has both positive and negative impacts. While it increases access to educational tools and information, it also exposes adolescents to an environment that they do not fully understand. The adolescents are not equipped with the mechanisms to defend themselves from the harms embedded in a technological environment.

The literature on cybersecurity for children and adolescents emphasizes the avoidance of harm, rather than legal responsibilities.[71] This may prove problematic with legal sanctions for "harmful digital communications" now in place. This is because adolescents might be both victims and perpetrators and the legal consequences adolescents may face for unwise interaction online are serious,[72] so there is an urgent need to provide meaningful and engaging educational resources to explain to adolescents what their rights and duties are online and about the use of internet communication technologies.

The lack of research on youth awareness of their rights and responsibilities in the digital space under New Zealand law requires attention. Adolescents live in a world where they are often connected.[73] The traditional dangers to children are amplified by the ever present technological link to the outside world, and we as a society are still trying to decide the best way of tackling the problem of constant technological connection in adolescents.

A number of studies have recommended investing in developing education programs for preventing cyberbullying, online harassment, and other online risky behavior such as over sharing of private information.[74] However, a 2011 study of bullying policies suggested many schools lack policies that address cyberbullying or bullying taking place outside the school environ-

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68. David Harvey, *Prosecutions Under the HDC Act*, AUCKLAND DIST. L. SOCIETY (Aug. 26, 2016), http://www.adls.org.nz/for-the-profession/news-and-opinion/2016/8/26/prosecutions-under-the-hdc-act/.

69. Oranga Tamariki Act 1989, pt 4, s 272 (N.Z.).

70. *Man Convicted under New Cyber Bullying Legislation*, N.Z. HERALD (Apr. 2, 2016, 10:38 AM), http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11615758.

71. *See* McPhee, *supra* note 67; *supra* text accompanying note 30.

72. Harmful Digital Communications Act 2015, s 3(a) (N.Z.).

73. Fenaughty, *supra* note 64, at 67.

74. Fenaughty & Harré, *supra* note 40, at 810; Raskaukas & Prochnow, *supra* note 42, at 100; Angela Webster, Preteens' Concepts and Development of Privacy, and the Relationship to Decisions and Actions Undertaken in Online Social Environments and with Digital Devices 124 (2016) (unpublished M.Ed. Thesis, University of Waikato) (on file with the University of Waikator), http://researchcommons.waikato.ac.nz/handle/10289/10059.

ment.[75] Similarly, it has been suggested that, although teachers may feel empathy towards bullied students, teachers are not always equipped to deal with the implications.[76] Moreover, AVG technologies stated that, globally, teachers felt they were given too much responsibility for educating children about the internet and, although four out of five teachers talked about internet safety, the same number lacked formal education on the topic.[77]

In recognition of this potential gap in teachers' abilities to educate adolescents about internet safety at school, government and private agencies are increasingly charged with the role of educating adolescents about these dangers.[78] Tools aimed at educating adolescents about online harms, and especially educating them about the legal protection available to them, are scarce and usually involve the mediation of a teacher, a parent, or an expert. Usually, these tools employ text and videos that are not engaging or fun for these adolescents; hence, adolescents would not use them unless they have to.

There are some programs, like NetSafe, that provide a strong impetus for educating adolescents about internet safety.[79] In their formal capacity under the HDCA, NetSafe will be able to advise on the legality of actions of and towards adolescents under the HDCA. These programs are also able to provide mediation for less serious infringements.[80] Their aim is to protect

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75. Louise Marsh et al., *Content Analysis of Antibullying Policies: A Comparison between New Zealand and Victoria, Australia*, 22 Health Promotion J. Austl. 172, 176 (2011).

76. Loreto Mattioni, School Staff's Perceptions and Attitudes towards Cyberbullying 17 (2013) (unpublished M.Ed. thesis, Victoria University of Wellington) (on file with the Victoria University of Wellington Library system), http://researcharchive.vuw.ac.nz/xmlui/bitstream/handle/10063/2611/thesis.pdf.

77. *Teachers Struggle Under the Weight of Parents' Expectations for Child Online Safety Education in Schools*, AVG Tech. (July 2, 2014), http://now.avg.com/teachers-struggle-under-the-weight-of-parents-expectations-for-child-online-safety-education-in-schools/.

78. The Privacy Commissioner acknowledged that people share a lot online and in 2010 released a kit designed by young people, for young people. *See Youth Privacy*, Office of the Privacy Commissioner, https://www.privacy.org.nz/your-rights/young-people/youth-privacy (last visited June 30, 2017). Moreover, in New Zealand there is a "Bullying Prevention Advisory Group" comprised of seventeen different agencies providing anti-bullying resources and educational support, and the "Bullying Free NZ" website provides information about what cyberbullying is and what measures can or have been taken to address it. *See* Bullying Free New Zealand, https://www.bullyingfree.nz (last visited June 30, 2017); *see also*, The Digital Licence, https://www.digitallicence.co.nz (last visited June 30, 2017).

79. *See, e.g.*, *Web Rangers NZ*, *supra* note 18.

80. *Get Help with Bullying & Abuse*, Netsafe (Mar. 21, 2018), https://www.netsafe.org.nz/bullying-abuse-support/.

against online harms and, as part of this, promote the idea of "digital citizen-ship," a concept adopted by the Ministry of Education.[81]

NetSafe has created a suite of online tools for schools and parents to inform children about the risks and responsibilities around online behavior, including a seven-step program for schools.[82] Particularly relevant for this article, NetSafe has also created an online environment where adolescents can create their own comics using the characters from their NetSafe Basics Animations.[83] These comics are aimed at getting cyber safety messages across in an entertaining and informative way.[84]

The benefits of a gamification approach to teaching cyber safety, such as the approach applied by NetSafe and by the online game described in this article, finds confirmation in the literature on internet safety. In general, the use of images, graphics, and symbols can be useful tools to effectively com-municate complex legal concepts to target audiences.[85] More specifically, McDonald-Brown et al showed online gaming was the most prevalent use of online devices for younger children.[86] They also found children feel the in-formation they are getting at school is insufficient for real-life internet use, and the authors suggested a need to move toward teaching students to make decisions themselves rather than trying to compile an exhaustive list of "rules" for online activities.[87]

IV.   PRIVACY GAMES

This section explores the online "Privacy Games."[88] The game uses in-tuitive, image-based scenarios to teach adolescents about privacy and online safety.[89] The game may increase the protection of adolescents from online harms and provide them with the tools that the HDCA designed to be used to help protect students. As stated above, the gamification idea is currently sup-ported by the advisory authority and seen as likely to be engaging with ado-

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81. *Digital Citizenship,* Te Kete Ipurangi (N.Z. Ministry of Education), http://www.elearning.tki.org.nz/Teaching/Digital-citizenship (last visited June 30, 2017).

82. *The Netsafe Kit for Schools*, Netsafe, http://www.netsafe.org.nz/the-kit/ (last visited on June 30, 2017).

83. *Id.*

84. *See id.*

85. Tania Leiman, *Where Are the Graphics? Communicating Legal Ideas Effec-tively Using Images and Symbols*, 26 Legal Ed. Rev. 47, 66 (2016).

86. Craig McDonald-Brown et al., *An Exploration of the Contexts, Challenges and Competencies of Pre-Teenage Children on the Internet*, 8 Int'l J. of Tech. Enhanced Learning 1, 1 (2016).

87. *Id.*

88. Privacy Games, http://www.privacygames.com/ (last visited Mar. 12, 2018).

89. *Id.*

lescents. Gamification will help to fill the perceived gaps in the education and support received elsewhere. This could even work in tandem with the Webrangers Initiative, promoted by NetSafe, and aimed at getting teens to spread the cyber safety message using the peer-to-peer method.[90] The prototype of the online educational tool is already available at www.privacygames .com and was used successfully in a university course. The game's purpose is to match pictures into scenarios representing legal issues related to harm online.

Privacy Games offers many helpful scenarios to teach adolescents about internet safety and the laws of the HDCA. For example, under the HDCA it is a crime to post revenge pornography online.[91] The game translates the revenge porn law into a flowchart diagram and asks a player to complete the diagram by moving a number of icons into places represented by textual descriptions.[92] A flowchart depicts the criminal consequences for posting revenge pornography online by listing events in a sequential order and emphasizes that any recording of the relationship is protected by privacy laws and that the distribution of such recordings after a breakup constitutes a criminal offense.[93]

A more advanced example in Privacy Games is an expression of a commentary in a provision of the Health Information Privacy Code 1994[94] stating that a general physician can refuse to disclose health information to parents in the case of patients who are under sixteen years old. The game translates the law's requirement into another flowchart diagramming the steps to determine if the law, and thus the right to privacy, applies.[95] A player matches a number of pictorial descriptions of various events (including pregnancy, discussion with doctor, communication with parents, etc.) to spaces to be filled in the flowchart.[96] Thus, completion of the flowchart enables the player to learn the legal consequences of the list of events.

Different from other online tools, Privacy Games is a novel project that combines state-of-the-art gaming and teaching techniques in order to protect teens and help them know about their rights and responsibilities in the virtual world, mainly by teens sharing their own experiences. The game has as little text as possible and is an intuitive and image-based game aimed at adolescents. The purpose of the game is to not only challenge students but also

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90. *Web Rangers NZ*, *supra* note 18.

91. Harmful Digital Communications Act 2015, s 3 (N.Z.).

92. *See* PRIVACY GAMES, *supra* note 88.

93. *Id.*

94. *Health Information Privacy Code 1994*, PRIVACY COMMISSION *68 (Dec. 2008), https://www.privacy.org.nz/assets/Files/Codes-of-Practice-materials/ HIPC-1994-2008-revised-edition.pdf.

95. *See* PRIVACY GAMES, *supra* note 88.

96. *Id.*

enable them to create their own scenarios. In fact, Privacy Games is a platform that accepts user-generated content. In doing so, Privacy Games creates a game that can be played, and serves as a fun way to drive a school class.

The game has already been used as a teaching tool with university students, who found it both challenging and stimulating. The game takes the different approach of actually creating content and connecting the verbal and the visual in a way that differentiates Privacy Games from other online tools. Moreover, the game is driven by the users' content and will evolve accordingly, which is a different approach to the legal education of students, as opposed to a quiz written by experts (i.e., adults). Usually, when dealing with user-generated games, it is a function of the amount of content and users that determines the popularity of the game.

It is hard to draw comparable examples since Privacy Games is offering a new approach in education—to use the technology to teach about harms in technology, rather than using the internet to provide text in a quiz format.[97] The efficacy of the game depends on whether it will deliver valuable legal and educational information to teenagers in an intriguing manner. Obviously, the ultimate success would be students playing the game in their spare time. But, even if the game serves only as a reference for teenagers looking for information regarding online harm and privacy, it would have achieved its purpose.

Finally, Privacy Games could become the go-to website for adolescents around the world, because it builds on students' content with the added value of legal research and experts providing guidance and editing. Internationally, the game has the potential to impact students by presenting a new approach towards compliance and legal education and be a role model for similar initiatives in other countries.

V.   CONCLUSIONS AND DIRECTIONS FOR THE FUTURE

Technological developments have significant effects on society. These effects, in turn, initiate changes in the laws and regulations regarding a society's interaction with them. Adolescents spend a substantial amount of time online, interacting with people around the world. Children and adolescents "who are both guinea pigs and pioneers in this technological revolution, are particularly vulnerable."[98] They can both be the victim and perpetuator of online harmful communication. Therefore, it is important that students understand which types of online behaviors are illegal. This article advances that because adolescent users are the ones encountering the harms online, engaging them with the legal environment created in order to protect them will enhance compliance and prevent harm.

Privacy Games is an online game designed by students, for students to teach adolescents about online privacy and cybersecurity. The gaming ap-

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97.   *See, e.g.*, TURBOTAX, https://turbotax.intuit.com/ (last visited Mar. 12, 2018).

98.   Harmful Digital Communications Act 2015, s 5 (N.Z.).

proach is designed to teach adolescents about the harm of technology through technology. The plan is to further develop the tool both content-wise and technology-wise. The first goal is to populate it with high quality content. The second goal is to make the game technologically advanced so it can function as a "sandbox" game, like Minecraft, making the game driven by user-generated content. It is also expected the game will be used as a teaching tool in universities and high school classes.

Finally, though recently introduced, the HDCA has already been object of criticisms and recommendations for improvement. But, these recommendations are made by adult experts, and therefore fail to fully acknowledge adolescents' perspectives. The next step to advance the efficacy of Privacy Games and the HDCA would be obtaining feedback from adolescents about identifying gaps in the HDCA.