An Overview of Technology Law from the Perspective of Public Policy-Oriented Consumer Interest Research (PPOCIR)

September 2014

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The emergence of the Internet and new technologies has had a dramatic impact on consumer issues and rights. As consumers gravitate toward e-commerce and engage with businesses in more interactive ways, new legal and policy issues must be considered from a consumer-interest perspective.

Technology law covers an exceptionally broad array of issues, ranging from commercial transactions to valuable data generated by Internet usage. The consumer perspective has often been lost in the race to develop legal certainty for online transactions and to identify the appropriate legal forum to govern potential disputes. Yet in recent years scholars have increasingly recognized that the consumer sits at the heart of many technology law issues. Whether it is examining the applicability of consumer protection rules to e-commerce, developing dispute resolution systems that level the playing field between businesses and consumers, or grappling with emerging consumer concerns such as their data privacy or the right to access the content or use the applications of their choice, technology law research is now inextricably linked to consumer interest issues.

This paper has five main purposes:

1. To identify the main legal research contributions that should be considered "must-know" that involve a combination of technology, legal and policy dimensions.
2. To discuss the evolution of technology law from a public policy-oriented consumer interest research (PPOCIR) perspective.
3. To develop a synopsis of the technology legal research issues most important for consumer policy analysis and development.
4. To assess the consumer policy implications in a way that facilitates knowledge sharing between researchers in academia and the broader PPOCIR community.
5. To identify the main researchers in the field, through an annotated bibliography of key books and articles.

The evolution of technology law from a PPOCIR perspective

Technology Law 1.0

The paper adopts the perspective that technology law has undergone a dramatic shift from a PPOCIR perspective. The initial consumer oriented concerns with technology focused primarily on shifting from offline paper contracts and face-to-face transactions to the online world. A compilation of notable works on each issue can be found at Appendix A. Relevant issues included:

1. Online contracts

With each passing day, e-commerce gains a greater foothold within society. One of the most obvious changes in moving commerce from the offline to the online world

was the enforceability of online contracts. Businesses and consumers were concerned with contractual certainty and legal questions arose about whether longstanding, conventional rules could be applied to the online environment.

Few things are more common on the Internet than the lengthy, largely incomprehensible, online contracts that are often buried at the bottom of web pages with a simple link to "terms". These agreements sometimes run dozens of pages if printed out and may transfer all responsibility and liability to the user, while selecting a jurisdiction clause that is advantageous to the website and inconvenient to most users.

Consumers regularly agree to these contracts (sometimes proactively by clicking that they agree and most other times by impliedly agreeing to the terms by using the website), but the enforceability of all the terms within the agreement remains an open question. The law has removed most uncertainty about whether an electronic contract can be enforceable - it can - but ensuring that the form of the contract is valid does not mean that all of its provisions will be enforced by a court.

Research into this issue encompasses the transition to e-contracts, the applicability of traditional rules of contract, as well as contractual form concerns. Professor Ian Kerr, the Canada Research Chair of Law, Ethics and Technology, has been a leading researcher on the issue of online contracting. His early work, including *Spirits in the Material World: Intelligent Agents as Intermediaries in Electronic Commerce*,[1] provide important insights into the unique issues posed by online contracting, particularly when such contracts involve computers or electronic agents. Kerr's work finds parallels with other areas of the law to provide greater legal certainty for both consumers and businesses that are increasingly reliant on electronic contracting.

Vincent Gautrais, a law professor at the University of Montreal, is another leading Canadian authority on electronic contracting. One of his most noteworthy works is *The Colour of E-Consent*,[2] published by the University of Ottawa Law and Technology Journal in 2004. Gautrais' research focuses on another important issue related to electronic contracts: adapting conventional consent models to the electronic environment. Gautrais' research points to the consumer disadvantages posed by online consent models that assume informed consent even where none exists. He notes that businesses may have incentives to "nudge" or bias consent models such that the obtained consent may not reflect a consumer's full understanding of the transaction or their legal rights and obligations.

As is the case in several technology law fields with real-world, practical importance to the business community and legal advisors, there is a significant amount of practitioner-based scholarship that focuses primarily on understanding the law "as

[1] Kerr, Ian R, "Spirits in the Material World: Intelligent Agents as Intermediaries in Electronic Commerce" (1999) 22 Dalhousie LJ 190

[2] Gautrais, Vincent, "The Colour of E-Consent" (2004) 1 UOLTJ 189-212

it is". Among the better Canadian examples of online contracting research, Bradley Freedman's *Electronic Contracts Under Canadian Law – A Practical Guide*,[3] published in the Manitoba Law Journal, and Mark Selick's *E-Contract Issues and Opportunities for the Commercial Lawyer*,[4] published in the Banking and Finance Law Review, stand out.

Industry Canada's sponsored research has also had an impact on online contract research. Union des consommateurs 2010 work on end-user licensing, *The end-user licence: do you accept all of the conditions?*, addresses the practical issues posed by Gautrais' work, while the Public Interest Advocacy Centre's 2005 paper, *Consumer Issues in Electronic Contracting*, offers a real-world examination of the consumer issues in electronic contracting years after Kerr's initial research into the field.

2. Consumer and E-commerce law

Internet fraud has increased in frequency and importance with the growth of electronic commerce. Unfortunately, perpetrators of fraud tend to prey on naïve and inexperienced Internet users, who are unable to effectively judge between a legitimate opportunity and a fraud. In many respects, the problems found online mirror those found in real space. Popular Internet frauds include securities fraud, pyramid schemes, sales of bogus goods, and credit card manipulation -- the types of frauds commonly found in real space. The problem may be more serious in the online environment, however, since sophisticated Web sites lend an aura of credibility to perpetrators of fraud. Moreover, the borderless nature of the Internet often renders law enforcement officials powerless to stop fraudulent activity.

Consumer groups and industry watchdogs have become particularly active in trying to develop effective consumer protection standards for the online environment. Consumer protection largely falls within provincial jurisdiction in Canada, leading to concerns of differing systems between jurisdictions, posing challenges to businesses and unequal protection for consumers. Research has examined best practices, new issues that merit statutory protections, and regulatory co-operation between jurisdictions.

Some of the most important Canadian research in this area has also been devoted to legislative and regulatory initiatives designed to provide greater legal certainty. For example, Richard Weiland's *The Uniform Electronic Commerce Act: Removing Barriers to Expanding E-Commerce*, examines the UECA, a Canadian e-commerce model law that is based on an international standard. Weiland's work identifies the key provisions in the model, which served as the foundation for provincial e-commerce statutes across Canada.

[3] Freedman, Bradley J, "Electronic Contracts Under Canadian Law – A Practical Guide" (2000) 28 Man LJ 1-60

[4] Selick, Mark J., "E-Contract Issues and Opportunities for the Commercial Lawyer" (2001) 16 BFLR 1

John Gregory, one of the lead authors of the Canadian model, has also contributed to the scholarly literature. *Canadian Electronic Commerce Legislation*, published in the Banking and Finance Law Review, provides a historical background behind the Canadian model, comparative discussion with other countries, and insight into implementation challenges.

The vast majority of research on consumer-specific issues have come through Industry Canada's consumer research funding program, the Contributions Program for Non-Profit Consumer and Voluntary Organizations. The program has been a significant supporter of research on this specific issue, identifying consumer trends and practices as well opportunities for reforms. For example, the creation of the Internet Sales Contract Harmonization Template, a federal effort designed to provide a model for jurisdictions across the country, provides a notable "made in Canada" approach to online contracting and consumer protection. This initiative has weaved its way into the e-commerce research agenda. For example, PIAC's *Pilot Project: Canadian Code of Practice for Consumer Protection in Electronic Commerce* is one of several efforts to aimed at assessing codes, rather than law, as a means to provide effective consumer protection online.[5]

Moreover, the Industry Canada sponsored research has also moved beyond the theoretical issues to practical implementation concerns and the realities faced by typical consumers. PIAC's 2011 study, *Point of No Return: Consumer Experiences Returning Online Purchases*,[6] addressed the ease with which consumers can return online purchases for a refund, providing a useful foundation for further research work.

3. Dispute resolution

Given the volume of consumer transactions online, dispute resolution scholars engaged in early research on whether technology could be leveraged to satisfactorily address disputes in an efficient and cost-effective manner. Research on these issues considered potential models and legal challenges arising from electronic-based alternative dispute resolution systems. One of the leaders was the Université de Montréal's Karim Benyekhlef, who combined scholarly research with practice, as he was one of the founders of eResolution, an early entrant into the online dispute resolution provider market.

Benyekhlef's work provided important insights into the practical challenges of using online tools to resolve disputes that may involve parties in different jurisdictions, from difficult cultures or backgrounds, using different languages, and involving a

[5] Lawson, Philippa, Nathalie St-Pierre, Marcel Boucher, David Cuming (Public Interest Advocacy Centre), "*Pilot Project: Canadian Code of Practice for Consumer Protection in Electronic Commerce*" (2003), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=1602&lang=eng

[6] Lo, Janet & Laman Meshadiyeva (Public Interest Advocacy Centre), "*Point of No Return: Consumer Experiences Returning Online Purchases*" (2011), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=4000&lang=eng.

wide array of substantive issues. *Les limites apprivoisees de l'arbitrage cybernetique: l'analyse de ces questions a travers l'exemple du Cybertribunal*,[7] written with colleagues Vincent Gautrais and Pierre Trudel provided an early examination of the issue, while *Online Dispute Resolution* canvassed these issues once again in 2005.[8]

While Benyekhlef's work focuses on online dispute resolution, Jonnette Watson Hamilton conducted research into consumer arbitration issues and issues raised in an e-commerce context *in Pre-Dispute Consumer Arbitration Clauses: Denying Access to Justice?*, published in the McGill Law Journal in 2006.[9] Yet another angle on dispute resolution comes from AndraLeigh Nenstiel, who focused on cross-border aspects of the issue in *Proceedings of the Canada-United States Law Institute Conference on Comparative Aspects of Innovation in Canada and the United States: Online Dispute Resolution: A Canada-United States Initiative*,[10] which was also published in 2006.

4. Spam and Internet Marketing

Long before sites such as Youtube and Twitter were even created, the Canadian government established a national task force to examine concerns associated with spam and spyware. The task force completed its work in May 2005, unanimously recommending that the government introduce anti-spam legislation (I was a member of the task force). Four years later, then-Industry Minister Tony Clement tabled an anti-spam law, which underwent extensive committee review before receiving royal assent in December 2010.

While most expected the government to quickly bring the new law into force, the regulation-making process was slowed by an intense lobbying effort designed to sow fear, doubt, and uncertainty about the legislation. Business argued that Canada would be placed at an economic disadvantage, despite the fact that government officials were able to identify over 100 other countries that have similar anti-spam regimes. The lobbying was a partial success, however, as the regulations went through two drafts and three more years of delay.

Almost a decade after Canada started down the path toward anti-spam legislation, Industry Minister James Moore announced in 2013 that the regulations are now final and the law started to take effect in July 2014. As the spam issue has weaved its way through the policy and legislative process, there have been a few notable scholarly contributions on point. Karen Ng's work, *Spam Legislation in Canada:*

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[7] Gautrais, Vincent. Karim Benyekhlef and Pierre Trudel, "Les limites apprivoisees de l'arbitrage cybernetique: l'analyse de ces questions a travers l'exemple du Cybertribunal. (1999) 33 RJT 537
[8] Benyekhlef, Karim, "Online Dispute Resolution" (2005) 10 Lex Electronica 2
[9] Hamilton, Jonnette Watson, "Pre-Dispute Consumer Arbitration Clauses: Denying Access to Justice?" (2006) 51 McGill LJ 693-734
[10] Nenstiel, AndraLeigh, "Proceedings of the Canada-United States Law Institute Conference on Comparative Aspects of Innovation in Canada and the United States: Online Dispute Resolution: A Canada-United States Initiative" (2006) 32 Can-US LJ 313.

Federalism, Freedom of Expression and the Regulation of the Internet,[11] provided a useful perspective on the limits of federal jurisdiction over spam issues and the challenges of balancing new regulation with freedom of speech protections under the Charter of Rights and Freedoms. Indeed, the work foreshadows subsequent legal debates that have arisen in the aftermath of the Canadian Anti-Spam Law (CASL) and several Supreme Court of Canada decisions.

Andrea Slane links spam with privacy in her 2005 University of Ottawa Law and Technology Journal piece, *Home is where the Internet Connection is: Law, Spam and the Protection of Personal Space*.[12] The privacy dimension of spam is often overlooked as the issue is largely viewed as a consumer trust matter. By bringing privacy into the discussion, Slane helpfully places the dangers of spam in a broader context.

In addition to research focused specifically on spam, there has been considerable research on Internet advertising, a related issue. Eloise Gratton, a Montreal-based practitioner, has been active in the field with her 2010 work, *Personalization, Analytics and Sponsored Services: The Challenges of Applying PIPEDA to Online Tracking and Profiling Activities*,[13] an important contribution to our understanding of the legal issues associated with emerging online advertising models. Similarly, Emily Woodward Deutsch's 2005 piece, *Too Many Open Windows? Exploring the Privacy Implications of Pop-Up Ads*,[14] links privacy law to web-based advertising models.

Internet-based advertising to children has also been an important field of research. In 2012, Karen Leven wrote, *A Look at the Protection of Children's Personal Information in an Online Context*,[15] building on Jill Scott's earlier work, *The Internet and Protection of Children Online: Time for Change*.[16] Both articles enhance our understanding of the unique issues posed by Internet marketing when children are the target audience.

5. Jurisdiction

The challenge of jurisdiction and the Internet has long been one of the most contentious online legal issues. Given that the Internet has little regard for

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[11] Ng, Karen, "Spam Legislation in Canada: Federalism, Freedom of Expression and the Regulation of the Internet" (2005) 2:2 UOLTJ 447-509

[12] Slane, Andrea "Home is where the Internet Connection is: Law, Spam and the Protection of Personal Space" (2005) 2:2 UOLTJ 255

[13] Gratton, Eloise, "Personalization, Analytics and Sponsored Services: The Challenges of Applying PIPEDA to Online Tracking and Profiling Activities" (2010) 8 CJLT 299.

[14] Woodward Deutsch, Emily, "Too Many Open Windows? Exploring the Privacy Implications of Pop-Up Ads" (2005) 2 U Ottawa L & Tech J 397

[15] Levin, Karen, "A Look at the Protection of Children's Personal Information in an Online Context" (2012) 9 Can Privacy L Rev 21

[16] Scott, Jill, "The Internet and Protection of Children Online: Time for Change" (2011) 9 CJLT 1

conventional borders, the question of whose law applies, which court gets to apply it, and how it can be enforced is seemingly always a challenge.

Striking the right balance can be exceptionally difficult: if courts are unable to assert jurisdiction, the Internet becomes a proverbial "wild west" with no applicable law. Conversely, if every court asserts jurisdiction, the Internet becomes over-regulated with a myriad of potentially conflicting laws vying to govern online activities.

In recent years, courts in many countries have adopted a reasonable balance where they are willing to assert jurisdiction over online activities or companies where there is a "real and substantial" connection, but they limit the scope of enforcing their rulings to their own jurisdiction. In other words, companies cannot disregard local laws where they operate there, but courts similarly should not disregard the prospect of conflicting rules between different countries.

The issue is particularly important from a consumer interest perspective, given the potential power imbalance between global businesses and consumers with little ability to enforce their rights locally. Research on jurisdictional questions involved which court could enforce the law, which law should be applied, and how consumers could effectively assert their rights in the online world.

I was the author of one of the first major pieces on the issue in Canada. *Is There a There There? Toward Greater Certainty for Internet Jurisdiction*,[17] started as a research project for the Uniform Law Conference of Canada and was later published in the Berkeley Journal of Law and Technology. The research canvassed caselaw in the United States and Canada, seeking to develop a better understanding of the jurisprudential approach to Internet jurisdiction. The work identified trends among courts in both countries and proposed a new technology-neutral test to address Internet jurisdiction concerns.

More recently, Teresa Scassa and Robert J. Currie consider the issue in the Georgetown Journal of Internet Law with a larger body of caselaw now decided. *New First Principles? Assessing the Internet's Challenges to Jurisdictio*n,[18] emphasizes the foundational aspects of jurisdiction and the need to remain true to those principles when factoring the Internet into the issue.

Given the global issues raised by the Internet, there has also been useful comparative research on jurisdiction. For example, Carina Neumueller's 2006 article, *Are We "There" Yet? An Analysis of Canadian and European Adjudicatory Jurisdiction Principles in the Context of Electronic Commerce Consumer Protection and*

[17] Geist, Michael, "Is There a There There? Toward Greater Certainty for Internet Jurisdiction" (2002) 16 Berkeley Technology Law Journal 1345-1406

[18] Scassa, Teresa & Robert J Currie, "New First Principles? Assessing the Internet's Challenges to Jurisdiction" (2011) Georgetown Journal of Internet Law, Vol 42

Policy Issues,[19] is particularly noteworthy given its focus on Internet jurisdiction and consumers from a Canadian and European perspective.

6. Other Issues

While there were other notable issues during "Technology Law 1.0", Canadian scholarship is somewhat hard to find. For example, the use of "gripe sites" to provide consumers with new ways to have their voices heard, particularly when dissatisfied with a business or service, was an important issue in the early days of technology law. The initial use of "gripe sites" raised interesting legal issues, touching on free speech and trademark issues. The issue garnered scholarly attention in the United States, but there are few Canadian-specific contributions.

Similarly, the popularity of sites such as eBay forged an entirely new business sector – consumer-to-consumer commerce. While consumers could always try to sell or barter with neighbours or friends, the size of the commerce was limited to local advertising and word-of-mouth. The emergence of eBay turned consumer-to-consumer commerce into a global enterprise, giving rise to new consumer interest research on legal protections, dispute resolution, taxation, and jurisdictional questions. Canadian scholarship was limited in the area.

The relatively limited scholarship on these issues may reflect the fact that few scholars were active in the area in Canada during the period from 1995 to 2005. Most of the articles cited in the above area come during this time frame, with the work coalescing around scholars from a handful of law schools (Ottawa, Montreal, and Dalhousie in particular). Moreover, Canada was more dependent on practitioner contributions and funded consumer work to supplement the research development of these areas. As new issues began to emerge (described as "Technology Law 2.0" in this report), the field expanded both in terms of the issues being addressed and the number of researchers and scholars active in the field.

Technology Law 2.0

As online commerce becomes a central part of the consumer landscape, new policy issues have come to the fore. The conception of consumer-related issues has shifted from transactional oriented concerns toward broader environmental and marketplace issues. These issues have a direct impact on competition, consumers ability to access online commerce, and govern the interactions between consumers and businesses. A compilation of notable works on each issue can be found at Appendix A. Relevant issues include:

1. Privacy

[19] Neumueller, Carina, "Are We "There" Yet? An Analysis of Canadian and European Adjudicatory Jurisdiction Principles in the Context of Electronic Commerce Consumer Protection and Policy Issues" (2006) 3 UOTTLTJ 421

The popularity of the Internet has precipitated a newfound awareness of the perils of personal privacy. The collection and use of personal data has evolved into a major industry with companies willing to pay thousands of dollars for consumer databases that provide contact information and personal preference data. Computers have fundamentally altered the collection and processing of such facts and figures as data mining software can be used to provide marketers with the "targeted" information they seek. The growth of the personal information industry has left many concerned about the loss of personal privacy and annoyed by the growing mountain of marketing material that arrives by mail, telephone or email.

The issue of personal privacy is particularly acute in the context of the Internet since it provides a new source of data collection that is "database ready", enabling quick processing and sale by data collection agencies. Moreover, Internet users have experienced a steady increase in the number of Web sites that request personal information. In some instances, the information requested is limited to a name and email address, though Web sites have been known to ask for the completion of detailed marketing surveys including financial information and personal preferences.

Privacy issues in the technology law realm may not have started as consumer-interest issues, but in recent years the consumer implications have become better understood. Privacy scholars have conducted research from a myriad of perspectives, with consumer interest an increasingly important part of the analysis.

University of Ottawa law professor Teresa Scassa, who holds the Canada Research Chair in Information Law, has emerged as one of the most prolific Canadian scholars in the privacy law field, particularly within the context of consumer issues. One area of particular interest is location-based privacy issues, which is of increasing importance given the proliferation of mobile devices. *Information Privacy in Public Space: Location of Data, Data Protection and the Reasonable Expectation of Privacy*[20] and *Location-Based Services and Privacy*,[21] both published in recent years in the Canadian Journal of Law and Technology provide important insights into the issue.

Jeremy Werner's *The Right to Oblivion: Data Retention from Canada to Europe in Three Backward Steps*,[22] published in 2005 in the University of Ottawa Law and Technology Journal, foreshadows current debates over the right to be forgotten and on the appropriate time frame for data retention. Werner's work places Canadian law in a global context by incorporating a comparative law approach that draws on the experience in Europe.

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[20] Scassa, Teresa, "Information Privacy in Public Space: Location of Data, Data Protection and the Reasonable Expectation of Privacy" (2010) 7 CJLT 193

[21] Scassa, Teresa & Anca Sattler, "Location-Based Services and Privacy" (2011) 9 CJLT 99

[22] Warner, Jeremy, "The Right to Oblivion: Data Retention from Canada to Europe in Three Backward Steps" (2005) 2 U Ottawa L & Tech J 75.

Another emerging privacy issue involves the storage of personal information in the "cloud" or the outsourcing of data to other jurisdictions. Both issues allow for important economic efficiencies, but can leave both consumers and privacy regulators without effective recourse to provide effective protection. David Krebs considers the cloud-based privacy issues in his 2012 work *Regulating the Cloud: A Comparative Analysis of the Current and Proposed Privacy Frameworks in Canada and the European Union*,[23] while my 2005 article, co-written with Milana Homsi, *Outsourcing Our Privacy: Privacy and Security in a Borderless Commercial World*,[24] examines the legal issues associated with outsourcing personal information.

In addition to peer-reviewed academic privacy research, there has been an enormous body of research supported through the Privacy Commissioner of Canada's contributions program. The OPC describes the program as follows:

Created in 2004 to support independent, non-profit research on privacy, further privacy policy development, and promote the protection of personal information in Canada, the Contributions Program is considered one of the foremost privacy research funding programs in the world.[25]

The program funds approximately ten research initiatives annually, resulting in over 100 funded projects since its inception. Consumer-oriented privacy research has been a key theme with a wide range of funded projects. Funded projects include a 2010 University of Alberta study on consumer genetic testing,[26] a 2006 University of Ottawa study on retailer compliance with data protection rules,[27] a 2011 review on the anonymization of consumer data by the Public Interest Advocacy Centre,[28] and a 2007 investigation conducted by Union des Consommateurs into whether consumers benefit from the trading of their personal information.[29] Since the

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[23] Krebs, David, "Regulating the Cloud: A Comparative Analysis of the Current and Proposed Privacy Frameworks in Canada and the European Union" (2012) 10 CJLT 29.
[24] Geist, Michael & Milana Homsi, "Outsourcing Our Privacy: Privacy and Security in a Borderless Commercial World" (2005) 54 UNBLJ 272 .
[25] Contributions Program: Privacy Research and Related Knowledge Translation Initiatives Funded by the OPC, < https://www.priv.gc.ca/resource/cp/p_index_e.asp>

[26] Analysis of Privacy Policies and Practices of Direct-to-Consumer Genetic Testing Companies: Private Sector Databanks and Privacy Protection Norms, https://www.priv.gc.ca/resource/cp/2009-2010/p_200910_07_e.asp

[27] Compliance with Canadian Data Protection Laws: Are Retailers Measuring Up?, https://www.priv.gc.ca/resource/cp/2005-2006/p_200506_01_e.asp

[28] Consumers Anonymous? The Privacy Risks of De-Identified and Aggregated Consumer Data, https://www.priv.gc.ca/resource/cp/2010-2011/p_201011_09_e.asp
[29] Do Consumers Benefit From the Trading of Personal Information?, https://www.priv.gc.ca/resource/cp/2006-2007/p_200607_01_e.asp

program does not require peer-reviewed publication upon completion (but rather open access to the research results), much of the work is not reflected in a literature review of relevant privacy research.

2. Wireless competition

There is little doubt that the battle over Canadian wireless pricing and competition, which hit a fever pitch over the summer of 2013, figures prominently in any consumer interest research agenda. The wireless issues cuts across communication and Internet policies. Indeed, as consumers increasingly rely upon wireless services for Internet access, the state of wireless competition is inextricably linked to the adoption and affordability of Internet access for Canadian consumers.

The longstanding debate over the state of wireless services in Canada has veered across many issues - pricing, roaming fees, locked devices, new entrants, and foreign investment to name a few. At the heart of all of these questions is a single issue: is the current Canadian wireless market competitive?

The competitiveness of the Canadian market is a foundational question since the answer has huge implications for legislative and regulatory policy. If the market is competitive, regulators (namely the CRTC) can reasonably adopt a "hands-off" approach, confident that competitive forces will result in fair prices and consumer choice. If it is not competitive, standing on the sidelines is not an option, thereby pressuring government and the CRTC to promote more competition and to implement measures to prevent the established players from abusing their advantageous position.

The importance of the question has not been lost on the incumbent wireless providers. Responding to public and government concerns about the state of competition, Bell has told the CRTC "the wireless market in Canada remains robustly competitive."[30] Similarly, Telus maintains the "claim that Canada's wireless market is uncompetitive is, frankly, not just woefully misleading, it is an insult to Telus' team members."[31] To support their position, the incumbent providers have relied on a University of Calgary study that concluded "there is no competition problem."[32]

The research issues encompass regulatory questions as well comparative competitiveness and pricing data on other developing world markets. Hudson

[30] http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03648.html#footnote15

[31] http://blog.telus.com/public-policy/why-do-canadas-wireless-critics-want-to-turn-back-time/

[32] Jeffrey Church and Andrew Wilkins, "*Wireless Competition in Canada: An Assessment*", University of Calgary School of Public Policy SPP Research Paper, September 2013. http://www.policyschool.ucalgary.ca/?q=content/wireless-competition-canada-assessment

Janisch is widely viewed as Canada's leading academic scholar on telecom issues. Several of his works provide the foundational underpinning for understanding the current regulatory environment and battle over future reforms. *Fairness and Transparency in Telecommunications Regulation*[33] and *Telecommunications in Turmoil: New Legal, Regulatory and Policy Challenges,*[34] published in 2003 and 2004 respectively, identify the coming challenges to the telecom regulatory system at a time when technology and the Internet were slowly driving marketplace change. More recently, Janisch's *Regulation and the Challenge of Broadband Telecommunications: Back to the Future?*, published in the Alberta Law Review, nicely reflect on those changes and identifies potential future developments.[35]

Several scholars also examine telecom competition issues. The ideal starting point is Edward Iacobucci, Michael Trebilcock, and Ralph A.*Winter's The Canadian Experience with Deregulation*, which argues in favour of increased deregulation.[36] For more historical context, John Tyhurst reviews the gradual development of Canadian policy in *Monopoly Lost? The Legal and Regulatory Path to Canadian Telecommunications Competition, 1979-2002*.[37]

Of particular interest to consumers, my work on the usage based billing controversy incorporates both telecom competition and consumer issues. *Canada's Usage Based Billing Controversy: How to Address the Wholesale and Retail Issues*,[38] published in the Queen's Law Journal in 2011, assesses how telecom issues emerged as a mainstream issue and why the outcry served as the turning point in shifting government policy on telecom competition and the need for a consumer-oriented perspective.

3. Internet access including net neutrality

Net neutrality has been one of the defining Internet policy research issues of the past decade. Starting with early concerns that large telecom and Internet providers would seek to generate increased profits by creating a two-tier Internet with a fast lane (for companies that paid additional fees to deliver their online content quicker) and a slow lane (for everyone else), the issue captured the attention of governments, telecom regulators, and consumers. While the net neutrality challenges evolved over time, the core research questions invariably boiled down to whether consumers

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[33] Janisch, Hudson, "Fairness and Transparency in Telecommunications Regulation" (2003) 16 Can J Admin L & Prac 227.
[34] Janisch, Hudson, "Telecommunications in Turmoil: New Legal, Regulatory and Policy Challenges" (2004) 37 UBC L Rev 1.
[35] Janisch, Hudson, "Regulation and the Challenge of Broadband Telecommunications: Back to the Future?" (2012) 49:4 Alta L Rev 767.
[36] Iacobucci, Edward, Trebilcock, Michael, & Winter, Ralph A "The Canadian Experience with Deregulation" (Winter, 2006) 56 Univ of Toronto LJ 1.
[37] Tyhurst, John S, "Monopoly Lost? The Legal and Regulatory Path to Canadian Telecommunications Competition, 1979-2002" (2001-2002) 33 Ottawa L Rev 385
[38] Geist, Michael, "Canada's Usage Based Billing Controversy: How to Address the Wholesale and Retail Issues" (2011) 37 Queen's LJ 221.

would be harmed by Internet providers attempting to leverage their gatekeeper position to create an unfair advantage by treating similar content, applications or other services in different ways.

Although net neutrality is a relatively new policy, it has been the source of considerable scholarly research and analysis. Richard French, a former CRTC Commissioner and current professor at the University of Ottawa, provides a helpful (albeit sceptical) backgrounder in his 2007 piece for the University of Ottawa Law and Technology Journal, *Net Neutrality 101*.[39]

As net neutrality blossomed into a recognized public policy issue, several scholars addressed both its political and regulatory dimensions. Jeff Miller's *Net-Neutrality Regulation in Canada: Assessing the CRTC's Statutory Competency to Regulate the Internet*,[40] considers the ability for the CRTC to regulate the issue. The regulatory competence concerns are particularly important given developments in the United States, where the Federal Communications Commission, the CRTC's counterpart, has faced statutory restrictions on its ability to grapple with net neutrality. Two other scholars seek to identify solutions to the issue: Alexander J. Adeyinka offers several proposals that pre-date the CRTC's guidelines in *Avoiding "Dog in the Manager" Regulation - A Nuanced Approach to Net Neutrality in Canada*,[41] while Brandi Field focuses on the technical challenges in *Net Neutrality: An Architectural Problem in Search of a Political Solution.*[42]

4. Intellectual property and user rights

Canadian consumers have an important stake in protections against misuse of intellectual property rights. More than a decade of debate over Canadian copyright reform came to a conclusion in 2012 as Bill C-11, the fourth try at reform since 2005, formally took effect. The reforms mark the biggest overhaul of Canadian copyright law in years with many consumer-oriented provisions incorporated into the law.

First, the law legalizes common consumer activities. For example, time shifting, or the recording of television shows, is now legal under Canadian copyright after years of residing in a grey area. The law also legalizes format shifting, copying for private purposes, and the creation of backup copies. This will prove helpful for those seeking to digitize content, transfer content to portable devices, or create backups to guard against accidental deletion or data loss.

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[39] French, Richard D, "Net Neutrality 101" (2007) 4:1&2 UOLTJ 109.
[40] Miller, Jeff, "Net-Neutrality Regulation in Canada: Assessing the CRTC's Statutory Competency to Regulate the Internet" (2012) 17 Appeal 47.
[41] Adeyinka, Alexander J, "Avoiding "Dog in the Manager" Regulation - A Nuanced Approach to Net Neutrality in Canada" (2008-2009) 40 Ottawa L Rev 1.
[42] Field, Brandi, "Net Neutrality: An Architectural Problem in Search of a Political Solution" (2010) 10 Asper Rev of Int'l Bus and Trade Law 187

Consumers can also take greater advantage of fair dealing, which allows users to make use of excerpts or other portions of copyright works without the need for permission or payment. The scope of fair dealing has been expanded with the addition of three new purposes: education, satire, and parody. Fair dealing now covers eight purposes (research, private study, news reporting, criticism, and review comprise the other five). When combined with the Supreme Court of Canada's recent decisions that emphasized the importance of fair dealing as users' rights, the law now features considerable flexibility that allows consumers to make greater use of works without prior permission or fear of liability.

The law also includes a unique user generated content provision that establishes a legal safe harbour for creators of non-commercial user generated content such as remixed music, mashup videos, or home movies with commercial music in the background. The provision is often referred to as the "YouTube exception", though it is not limited to videos.

Research into the consumer implications of intellectual property rights includes safeguards against patent and copyright trolls that threaten small businesses and increase consumer costs as well as provisions to ensure that thousands of Canadians do not get caught up in questionable lawsuits over copyright claims that seem primarily designed to pressure them into expensive settlements. In fact, the emergence of users' rights as a policy principle has led to a wide range of research work on the intersection between consumer interest and copyright.

With more than a decade of policy debate, intellectual property, particularly copyright, has been a particularly fertile area of research for Canadian scholars. Indeed, many have actively contributed to the policy development process. Fully canvassing the intellectual property scholarship is beyond the scope of this paper. However, there are three notable books that I edited on copyright that examine virtually all aspects of copyright and copyright reform in Canada. *In the Public Interest: The Future of Canadian Copyright Law*,[43] published by Irwin Law in 2005, features research responding to the first copyright bill introduced earlier that year. There are 19 chapters under three broad headings : copyright reform in context, specific proposals for reform, and future reforms. In 2010, Irwin Law published *From "Radical Extremism" to "Balanced Copyright": Canadian Copyright and the Digital Agenda*.[44] The book contains 20 chapters in five sections : context, technology, creativity, education, and access. Finally, in 2013, the University of Ottawa Press published *The Copyright Pentalogy: How the Supreme Court of Canada Shook the Foundations of Canadian Copyright Law*,[45] featuring 13 articles responding

[43] Geist, Michael, ed., In the Public Interest: The Future of Canadian Copyright Law, Irwin Law, 2005 (602 pp.)
[44] Geist, Michael, ed., From "Radical Extremism" to "Balanced Copyright": Canadian Copyright and the Digital Agenda, Irwin Law, 2010 (652 pp.)
[45] Michael Geist, ed., The Copyright Pentalogy: How the Supreme Court of Canada Shook the Foundations of Canadian Copyright Law, University of Ottawa Press, 2013 (456 pp.)

to the Supreme Court of Canada's five landmark copyright decisions. All three books are openly available under Creative Commons licences.

The issue of user rights in copyright sit at the intersection between public policy oriented consumer research and copyright. David Vaver provided the courts with the foundation for user rights and his 2013 Intellectual Property Journal article, *User Rights*,[46] provides an updated look at the issue. Several other scholars have provided important contributions to our understanding of user rights : Pascale Chapdelaine offers a critical perspective in *The Ambiguous Nature of Copyright Users Rights*,[47] while University of Windsor law professor Myra Tawfik's work, particularly *The Supreme Court of Canada and the "Fair Dealing Trilogy": Elaborating a Doctrine of User Rights under Canadian Copyright Law*,[48] is a more supportive assessment of the concept.

Beyond debates over user rights, fair dealing has proven among the most important, albeit contentious, copyright issues for consumers. Supporters of recent developments include Ariel Katz in his work, *Fair Use 2.0: The Rebirth of Fair Dealing in Canada*,[49] which argues that a flexible approach to fair dealing is consistent with its historical origins, and my piece, *Fairness Found: How Canada Quietly Shifted from Fair Dealing to Fair Use*,[50] which explains why the Canadian fair dealing provision is now more closely aligned with the U.S. fair use rules. Some Canadian scholars provide a more critical perspective on fair dealing: Giuseppina D'Agostino's *The Arithmetic of Fair Dealing at the Supreme Court of Canada*[51] and *Healing Fair Dealing? A Comparative Copyright Analysis of Canada's Fair Dealing to UK Fair Dealing and US Fair Use*[52] both argue against an expanded, more flexible approach, which she argues invites legal uncertainty and under-compensation for creators.

There has also been some Canadian copyright scholarship that considers common consumer activities and their treatment by intellectual property law. Gregory Hagen and Nvall Engfield assess the legal implications of peer-to-peer file sharing in

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[46] Vaver, David, "User Rights" (2013) 25 IPJ 105.
[47] Chapdelaine, Pascale, "The Ambiguous Nature of Copyright Users Rights" (2013) 26 IPJ 1.
[48] Tawfik, Myra, "The Supreme Court of Canada and the "Fair Dealing Trilogy": Elaborating a Doctrine of User Rights under Canadian Copyright Law" (2013) 51:1 Alta L Rev 191.
[49] Katz, Ariel, "Fair Use 2.0: The Rebirth of Fair Dealing in Canada" in Michael Geist, ed, *The Copyright Pentalogy: How the Supreme Court of Canada Shook the Foundations of Canadian Copyright Law.* (Ottawa: University of Ottawa Press, 2013) 93
[50] Geist, Michael, "Fairness Found: How Canada Quietly Shifted from Fair Dealing to Fair Use" in Michael Geist, ed, *The Copyright Pentalogy: How the Supreme Court of Canada Shook the Foundations of Canadian Copyright Law.* (Ottawa: University of Ottawa Press, 2013) 157
[51] Giuseppina D'Agostino "The Arithmetic of Fair Dealing at the Supreme Court of Canada" in Michael Geist, ed, *The Copyright Pentalogy: How the Supreme Court of Canada Shook the Foundations of Canadian Copyright Law.* (Ottawa: University of Ottawa Press, 2013) 187.
[52] D'Agostino, Giuseppina, "Healing Fair Dealing? A Comparative Copyright Analysis of Canada's Fair Dealing to UK Fair Dealing and US Fair Use" (2008) 53 McGill LJ 309.

Canadian Copyright Reform: P2P Sharing, Making Available and the Three-Step Test[53] and Graham Reynolds offers an insightful look at the effects of copyright on marginalized groups in *The Impact of the Canadian Copyright Act on the Voices of Marginalized Groups*.[54]

5. Social media interaction

While early consumer-to-business online interaction may have centred on gripe sites, social media services such as Facebook and Twitter have become far more prominent today. Consumer interest research has focused on the privacy implications of these services, the jurisdictional questions associated with hosting data outside of Canada, and the free speech implications of private online fora.

This is an emerging area of technology law with several recent articles setting the stage for an expanded research agenda in the coming years. Former Privacy Commissioner of Canada Jennifer Stoddart identifies some of the legal issues in *Privacy in the Era of Social Networking: Legal Obligations of Social Media Sites,*[55] based on a keynote address that incorporates some of the research of the Office of the Privacy Commissioner of Canada.

Dalhousie law professors Steven Coughlan and Robert J. Currie canvass some of the same issues in their 2013 article for the Canadian Journal of Law and Technology : *Social Media: The Law Simply Stated*.[56] Teresa Scassa continues her privacy work by assessing some of the unique privacy implications of social media in *Privacy and Publicly Available Personal Information*,[57] an article that also has implications for the growing open data movement.

6. Online harms and cybersecurity

Concerns associated with online consumer safety may have initially focused on spam, but in recent years the impact of cybersecurity, spyware, and other online harms have emerged as increasingly important areas of research. In the aftermath of the events of 9-11, all governments moved rapidly to assess their national security needs. The Canadian assessment led to a report entitled *Securing an Open Society: Canada's National Security Policy*. Touted as the first document of its kind, it featured a detailed plan for addressing future security threats. The report specifically identified cyber-security as a critical infrastructure issue, noting that "the threat of cyber-attacks is real, and the consequences of such attacks can be

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[53] Hagen, Gregory R & Engfield, Nyall "Canadian Copyright Reform: P2P Sharing, Making Available and the Three-Step Test" (2006) 3:2 UOLTJ 477.
[54] Reynolds, Graham, "The Impact of the Canadian Copyright Act on the Voices of Marginalized Groups" (2010) 48 Alta L Rev 35.
[55] Stoddart, Jennifer, "Privacy in the Era of Social Networking: Legal Obligations of Social Media Sites" (2011) 74 Sask L Rev 263.
[56] Coughlan, Steven & Robert J Currie, "Social Media: The Law Simply Stated" (2013) 11 CJLT 229.
[57] Scassa, Teresa, "Privacy and Publicly Available Personal Information" (2013) 11 CJLT 1

severe." The report committed to substantially improving Canada's analysis of the vulnerability of Internet infrastructures as well as to strengthen its ability to defend its networks and to respond to cyber-attacks.

It is clearly essential that the development of a cyber-security infrastructure generate confidence from all stakeholders by including representation from both privacy and civil liberties groups. Security is a critical value, yet it must be imbued with full respect for the privacy and civil liberty rights of all Canadians. Indeed, revelations of widespread telephone communications surveillance in the United States – frequently with the active, secret participation of telecommunications companies – has provided ample evidence of the danger of focusing on security without counterbalancing with a privacy and civil liberties perspective.

Canadian consumer research in the area of online harms and cybersecurity address several cross-cutting issues. From a privacy-oriented perspective, data breaches have attracted considerable attention. University of Ottawa law professor Jennifer Chandler is a leading scholar in the field, with her work, *Negligence Liability for Breaches of Data Security*,[58] one of the most important pieces on creating the necessary legal incentives to improve data security and reduce the likelihood of security breaches. Gideon Emcee Christian also examines data breaches in his 2009 Canadian Journal of Law and Technology piece, *A New Approach to Data Security Breaches*.[59]

Chandler's work in the field extends beyond data breaches to other aspects of cybersecurity. *Liability for Botnet Attacks*[60] considers how to address attacks that may compromise computer security for consumers and *Security in Cyberspace: Combatting Distributed Denial of Service Attacks*[61] provides a similar examination in the context of denial of service attacks.

In the aftermath of the Edward Snowden revelations, work is beginning to emerge on cyber-security and surveillance. Nicholas Koutros and Julien Demers article, *Big Brother's Shadow: Decline in Reported Use of Electronic Surveillance by Canadian Federal Law Enforcement*[62] was published just prior to the Snowden revelations. Far more on the issue can be expected in the months and years ahead.

Synopsis of the technology legal research in Canada

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[58] Chandler, Jennifer, "Negligence Liability for Breaches of Data Security" (2008) 23 BFLR 223.
[59] Christian, Gideon Emcee, "A New Approach to Data Security Breaches" (2009) 7 CJLT 149.
[60] Chandler, Jennifer, "Liability for Botnet Attacks" (2006) 5 CJLT 13
[61] Chandler, Jennifer, "Security in Cyberspace: Combatting Distributed Denial of Service Attacks" (2004) 1 U Ottawa L & Tech J 231
[62] Koutros, Nicholas & Julien Demers, "Big Brother's Shadow: Decline in Reported Use of Electronic Surveillance by Canadian Federal Law Enforcement" (2013) 11 CJLT 79.

The emergence of technology law as a field of study in Canada in recent years has led to a significant expansion in research initiatives and accompanying scholarship. The review of research in the field yields several key themes and conclusions.

1. The field has grown demonstrably in recent years. While technology law was studied and researched in relatively few institutions in the late 1990s, that has now changed. Most Canadian law faculties have faculty with an interest and expertise in some aspect of technology and student demand has increased significantly, leading to more courses and research opportunities.

2. Scholarship in the technology law area tends to be "open" in the sense that the works are openly available under open access licenses. This includes several of the key books in the field and law journals. Moreover, even where the scholarship is published in closed-access journals, pre-prints of the work is frequently available online in institutional repositories or through services such as the Social Sciences Research Network. The open availability of technology law research in Canada has interesting implications for future research initiatives and public education efforts. Unlike some other fields, where the research is not openly available, there is an opportunity to curate the materials in a manner that makes the research more accessible to a wider audience. No further legal permissions are required for many of the works.

3. External funding has played an important role in the development of research and scholarship in the field. The Social Sciences and Humanities Research Council of Canada has been a major supporter of technology law research through its general funding programs as well as targeted research initiatives that have often included a technology or innovation component. Moreover, Industry Canada's Contributions Program for Non-Profit Consumer and Voluntary Organizations. has yielded many important studies with a technology law dimension. Indeed, the majority of empirical work on the practical implementation of technology law issues from a consumer perspective has been directly supported through the Industry Canada program.

   Research support has also come through the Privacy Commissioner of Canada's contributions program. The program provides support for a wide range of privacy issues. Consumer issues have been a major funding target with research projects covering everything from smartphone privacy to retailer compliance with privacy legislation.[63]

   The Industry Canada and Privacy Commissioner of Canada programs suggest that some research in the field is not published in peer-review

[63] For a full list of supported projects, see http://www.priv.gc.ca/resource/cp/p_sub_index_e.asp.

academic journals. The requirements of these funding programs do not typically require formal academic publication. While this survey has emphasized academic, peer-reviewed research, there is important research occurring outside of the conventional academic sphere.

4. Technology law research published in conventional journals has tended to be published in specialized journals, such as the Canadian Journal of Law and Technology and the University of Ottawa Law and Technology Journal. While there are exceptions, general interest law journals have devoted limited space to technology law journals. The publishing specialization suggests that there may be room for additional journals in the field. Moreover, it raises questions about whether the scholarship is reaching a wide academic audience, since the readership and circulation of specialized journals is likely more limited and targeted to scholars who are already active or interested in the field.

5. Most notable for the purposes of this report, the majority of technology law research is not written from a consumer-oriented public policy perspective. While the technology law issues canvassed can all be described as consumer issues, the vast majority of research and scholarship does not adopt a consumer perspective. There are the occasional outliers that may directly involve consumer protection legislation, but most other areas are not instinctively viewed as PROCIR even if there is considerable overlap in concerns. The lack of a direct connection between technology law scholars and research on the one hand, and consumer-oriented public policy research on the other, confirms that there is work to be done to enhance the profile of consumer issues within the field as well as a need to raise awareness of the importance of a consumer perspective on many technology law issues.

<u>The consumer policy implications and knowledge sharing</u>

Technology law is a relatively young field and its growth in recent years speaks to its increasing importance and interest among scholars. The field has benefited from significant external funding, the availability of specialized journals, and the adoption of open publishing models that renders the research more readily accessible than scholarship in some other fields. As the implications of technology law issues on government and consumer policy become increasingly apparent, scholars and non-governmental organizations have developed an impressive record of research and scholarship, much of which is designed with public policy in mind.

Notwithstanding the growth of the field, the consumer dimension has largely been after-thought among many scholars. There is a wide array of research with clear consumer policy implications, yet few researchers have been active in the public policy realm. In other words, the research is undertaken and completed with little regard for how it can move from academic journals or funder reports to key inputs

in the policy process. Part of the reason for the disconnect may be that few of the technology law scholars self-identify as consumer law researchers. While many may recognize that their work has implications for consumer public policy, they are more likely to see themselves as "privacy scholars", "intellectual property researchers" or "telecom specialists."

This report ultimately provides both a good news and a bad news story. The good news is that there is a flourishing eco-system of technology law researchers producing good quality Canadian research on issues that matter from a consumer-oriented public policy perspective. Technology law is likely to assume an increasingly important part of consumer policy and Canada is fortunate to have some excellent researchers working in the field. Moreover, the field has generally enjoyed some financial support and has adopted an openly model of publication.

The bad news is that much more work is needed to bring this community of scholars and researchers into the consumer-oriented public policy realm. Research in this field has often been characterized by a "silo" approach in which there is limited communication between legal scholars and consumer experts. While there are obvious benefits to a multi-disciplinary approach, such initiatives have been the exception rather than the rule. There are no obvious structural barriers to closer collaboration, suggesting that the consumer public policy community should be considering new outreach and scholarly initiatives to bring the two communities closer together.

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19. Thompson, Marcelo, "Property Enforcement or Retrogressive Measure? Copyright Reform in Canada and the Human Right of Access to Knowledge" (2007) 4:1&2 UOLTJ 163

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21. Esmail, Parveen, "CCH Canadian Ltd. v. Law Society of Upper Canada Case Comment on a Landmark Copyright Case" (2005) 10 Appeal 13

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Social media interaction between consumers and businesses

1. Steven Coughlan & Robert J Currie, “Social Media: The Law Simply Stated” (2013) 11 CJLT 229.

2. Teresa Scassa, “Privacy and Publicly Available Personal Information” (2013) 11 CJLT 1 .

3. Jennifer Stoddart, “Privacy in the Era of Social Networking: Legal Obligations of Social Media Sites” (2011) 74 Sask L Rev 263.

Spyware and online harms

1. Gideon Emcee Christian, “A New Approach to Data Security Breaches” (2009) 7 CJLT 149.

2. Gordon Scott Campbell, “Emerging Issues of the Internet and Canadian Criminal Law” (1998) 3 Can Crim L Rev 101.

3. Jennifer Chandler, “Liability for Botnet Attacks” (2006) 5 CJLT 13.

4. Jennifer Chandler, “Negligence Liability for Breaches of Data Security” (2008) 23 BFLR 223.

5. Jennifer Chandler, “Security in Cyberspace: Combatting Distributed Denial of Service Attacks” (2004) 1 U Ottawa L & Tech J 231.

6. Matthew E Castel, “International and Canadian Law Rules Applicable to Cyber Attacks by State and Non-State Actors” (2012) 10 CJLT 89.

7. Nicholas Koutros & Julien Demers, “Big Brother’s Shadow: Decline in Reported Use of Electronic Surveillance by Canadian Federal Law Enforcement” (2013) 11 CJLT 79.

8. Renee M Pomerance, “Redefining Privacy in the Face of New Technologies: Data Mining and the Threat to the “Inviolate Personality” (2005) 9 Can Crim L Rev 273.

Appendix B

B.1 Reports that received funding from Industry Canada’s Contributions Program for Non-Profit Consumer and Voluntary Organizations

Consumer protection and E-Commerce

1. Colbert, Christine (The Canadian Association of Family Resource Programs), "*Vulnerable Families as E-Consumers: Current Attitudes, Behaviours and Barriers to E-Information"* (2010), online: http://www.frp.ca/document/docWindow.cfm?fuseaction=document.viewDocument&documentid=974&documentFormatId=1670

2. Consumers' Association of Canada (CAC), "*Analyzing the Feasibility of Creating an Electronic Commerce Site Certification Program* "(2001), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=54&lang=eng

3. Consumers' Association of Canada (CAC), "*Third Party Assurance for Consumers in Electronic Commerce"* (2000), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=5&lang=eng

4. Lawson, Philippa, Nathalie St-Pierre, Marcel Boucher, David Cuming (Public Interest Advocacy Centre), "*Pilot Project: Canadian Code of Practice for Consumer Protection in Electronic Commerce"* (2003), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=1602&lang=eng

5. Lo, Janet & Laman Meshadiyeva (Public Interest Advocacy Centre), "*Point of No Return: Consumer Experiences Returning Online Purchases"* (2011), online: http://www.piac.ca/files/online_returns_final_website.pdf

6. Public Interest Advocacy Centre, "*International Consumer Advocacy in Electronic Commerce: Report on Accomplishments"* (2000), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=6&lang=eng

7. Service d'aide au consommateur (SAC), "*Assurances sur Internet*" (2002), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=1660&lang=eng

Privacy Implications of Consumers in E-commerce transactions

1. Lo, Janet & John Lawford (Public Interest Advocacy Centre), *Are you sure you want to continue? Consumer Authentication at the Crossroads* (2008), online: http://www.piac.ca/financial/are_you_sure_you_want_to_continue_consumer_authentication_at_the_crossroads/

2. Lo, Janet & John Lawford (Public Interest Advocacy Centre), "*Data Breaches: Worth Noticing?"* (2011), online: http://www.piac.ca/files/data_breaches_worth_noticing_publication_version_final_final.pdf

3. Lo, Janet (Public Interest Advocacy Centre), "*A Do not track list" for Canada?"* (2009), online: http://www.piac.ca/files/dntl_final_website.pdf

4. Rancourt, Marie-Eve (Union des consommateurs), "*Is the Trade in Personal Information Beneficial to Consumers?*" (2007), online: http://uniondesconsommateurs.ca//docu/telecom/info_perso_e.pdf

Online contracting

1. Depuis, Gabriel & Marcel Boucher (Union des consommateurs), *Minors, contracts and consequences* (2011), online: http://uniondesconsommateurs.ca/docu/protec_conso/MinorsContractsConsequences.pdf

2. Hemond, Anthony (Union des consommateurs), *The end-user licence: do you accept all of the conditions?* (2010), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=3520&lang=eng

3. Public Interest Advocacy Centre, *Consumer Issues in Electronic Contracting* (2005), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=1329&lang=eng

Consumer dispute resolution

1. Mercorio, Me Philippe (Union des consommateurs), *De la theorie a la realite: Mise en place d'u organisme de certification* (2004), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=1584&lang=eng

B.2 Other reports funded by Industry Canada

Consumer jurisdiction issues

1. Geist, Michael, *Is There a There There? Toward Greater Certainty for Internet Jurisdiction* (2001), online: http://www.ic.gc.ca/app/oca/crd/dcmnt.do?id=72&lang=eng

Consumer dispute resolution

1. McChesney, Allan, *Feasibility Studies for New Standards Relating to Consumers and Electronic Commerce* (2000), online: https://www.ic.gc.ca/eic/site/oca-bc.nsf/vwapj/feas.pdf/$FILE/feas.pdf

Appendix C

Canadian Technology Law Resources

Law School Programs

University of Ottawa Centre for Law, Technology and Society
http://www.techlaw.uottawa.ca

IP Osgoode, Osgoode Hall Law School
http://www.iposgoode.ca/

Centre for Law and Innovation Policy, University of Toronto
http://innovationlaw.org/

Legal Centre for Business and Technology, University of Calgary
http://www.ucalgary.ca/biztechlaw/

Law and Technology Institute, Dalhousie Law School
http://www.dal.ca/faculty/law/LATI.html

Centre for Intellectual Property Policy, McGill University
http://www.cipp.mcgill.ca/en/

CDRP, University of Montreal
http://www.crdp.umontreal.ca/en/

Associations

Canadian IT Law Association
http://www.it-can.ca/welcome-bienvenue/

Intellectual Property Institute of Canada
http://www.ipic.ca/

Blogs and Relevant Websites

Michael Geist Blog
http://www.michaelgeist.ca

Excess Copyright
http://excesscopyright.blogspot.com

Barry Sookman
http://www.barrysookman.com

Canadian Entertainment and Media Law Signal
http://www.entertainmentmedialawsignal.com

Canadian Privacy Law Blog
http://blog.privacylawyer.ca

Video Game Law Blog
http://www.davis.ca/en/blog/video-game-law

Canadian Trademark Blog
http://trademarkblog.ca

Canadian Technology & IP Laaw
http://www.canadiantechnologyiplaw.com

eLegal Canton
http://canton.elegal.ca

Fair Duty
http://fairduty.wordpress.com

Sam Trosow
http://samtrosow.wordpress.com

Sara Bannerman
http://sarabannerman.blogspot.ca

Ariel Katz
http://arielkatz.org

Michael Power
http://michaelpower.ca

Techblawg
http://techblawg.ca

Jeremy deBeer
http://www.jeremydebeer.ca

Allen Mendelsohn
http://allenmendelsohn.com

Canadian Intellectual Property Blog
http://www.canadaipblog.com

Teresa Scassa
http://www.teresascassa.ca/