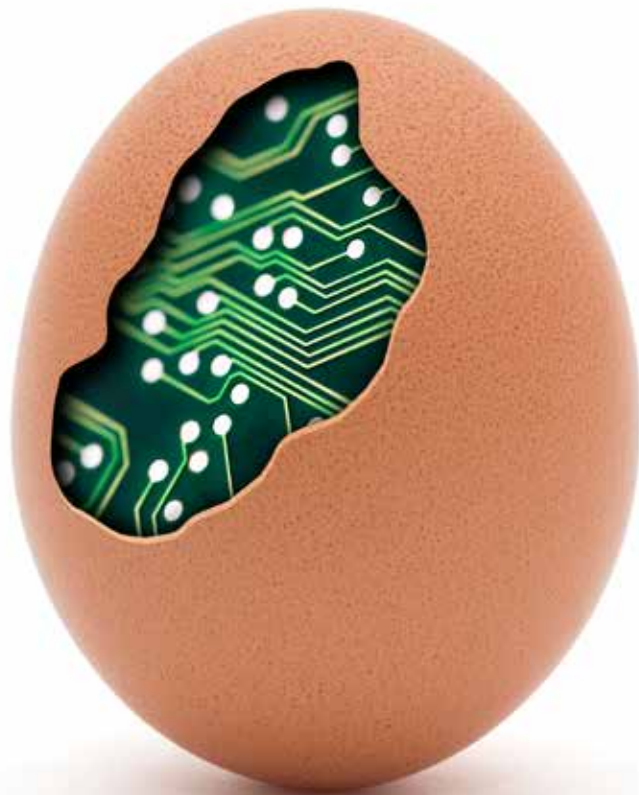


Special Report

From Start-up to Scale-up

A Report on the Innovation Clinic in Canada

Giuseppina (Pina) D'Agostino



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About the Author

Pina D'Agostino is a senior fellow with CIGI's International Law Research Program (ILRP), effective November 2016. She is an associate professor at Osgoode Hall Law School; founder and director of IP Osgoode, the Intellectual Property (IP) Law and Technology Program at Osgoode Hall Law School; editor-in-chief of *IPilogue* and *Intellectual Property Journal*; and director of Osgoode's IP Intensive Program and the Innovation Clinic.

As a CIGI senior fellow, Pina works with the ILRP on her Innovation Clinic model, which concerns practical IP law training for law students, and on the expansion of the clinic's operational capacity. The clinic provides innovators of start-up companies with pro bono legal services in the area of IP law on a needs basis, assisted by lawyers from Norton Rose Fulbright Canada LLP and Bereskin & Parr LLP. Pina is exploring scaling the Innovation Clinic model across Canada to promote innovation and entrepreneurship.

Prior to joining Osgoode, Pina was selected by the Recruitment of Policy Leaders program and worked for the Department of Canadian Heritage's Copyright Policy Branch and also previously practised law at a large Toronto law firm. She is a Supreme Court of Canada-cited authority and is regularly called on by foreign governments and the Canadian federal and provincial governments for advice. In 2010, she testified before Parliament's legislative committee on Canada's ongoing copyright reform initiatives.

Pina has written on a range of IP issues in her two books, *Copyright, Contract, Creators: New Media, New Rules* and *The Common Law of Intellectual Property: Essays in Honour of Professor David Vaver* (edited with Catherine Ng and Lionel Bently). Pina completed her doctoral and master's studies in law with distinction at the University of Oxford, where she was a lecturer in law and continues to be the recipient of various honours and Social Sciences and Humanities Research Council funding awards.

About the International Law Research Program

The International Law Research Program (ILRP) at CIGI is an integrated multidisciplinary research program that provides leading academics, government and private sector legal experts, as well as students from Canada and abroad, with the opportunity to contribute to advancements in international law.

The ILRP strives to be the world's leading international law research program, with recognized impact on how international law is brought to bear on significant global issues. The program's mission is to connect knowledge, policy and practice to build the international law framework — the globalized rule of law — to support international governance of the future. Its founding belief is that better international governance, including a strengthened international law framework, can improve the lives of people everywhere, increase prosperity, ensure global sustainability, address inequality, safeguard human rights and promote a more secure world.

The ILRP focuses on the areas of international law that are most important to global innovation, prosperity and sustainability: international economic law, international intellectual property law and international environmental law. In its research, the ILRP is attentive to the emerging interactions among international and transnational law, Indigenous law and constitutional law.

Acronyms and Abbreviations

BEST	Bergeron Entrepreneurs in Science & Technology
CIPO	Canadian Intellectual Property Office
IAP	Inventor Assistance Program
IP	intellectual property
ISED	Ministry of Innovation, Science and Economic Development
JD	juris doctor
LCCP	Law School Clinic Certification Program
LTEC	CIGI ILRP Windsor Law, Technology and Entrepreneurship Clinic
OCAD	Ontario College of Art and Design
OCE	Ontario Centres of Excellence
OPIR	Osgoode Public Interest Requirement
SAOs	start-up assistance organizations
SMEs	small and medium-sized entities
SOPs	standard operating procedures
USPTO	United States Patent and Trademark Office
WIPO	World Intellectual Property Organization
YEDI	York Entrepreneurship Development Institute



Executive Summary

Intellectual property (IP) legal clinics play a crucial role in helping Canadian inventors and entrepreneurs bring their inventions to market while strengthening the foundations of the country's innovation ecosystem. IP legal clinics provide pro bono IP information and assistance to under-resourced inventors who are not served by the profession. At the same time, when based at law schools, these clinics provide experiential learning opportunities to law students who want to work in the IP profession, which contributes to their career development and increases their legal and interpersonal acumen. These client and student-facing goals improve the ability of Canadians to recognize, protect and exploit intangible assets through IP commercialization strategies, skills that have proven necessary for Canadian businesses to succeed at home and abroad. The financial constraints faced by start-ups and small and medium-sized entities (SMEs) are especially acute in a specialized field such as IP law, where patent costs are prohibitive and can cost upwards of \$20,000. The inability to protect and strategize a company's IP due to such costs have long-standing consequences when not addressed early in the commercialization process.

This report describes how enterprising academic initiatives, such as IP legal clinics, offset the prohibitive costs of professional counsel to provide crucial access to justice for early-stage companies and financially strapped entrepreneurs. In particular, the report draws on the experiences of the Innovation Clinic the author conceptualized and founded in 2010. The Innovation Clinic is a student-based IP legal clinic that helps start-ups and SMEs overcome the expensive barriers to IP protection and, ultimately, enhance law students' learning experience. Recognizing the growing challenges facing the existing IP infrastructure, the Innovation Clinic fosters IP commercialization and the dissemination of IP knowledge by offering pro bono IP legal services to under-resourced and often under-represented inventors, entrepreneurs and the community at large. The Innovation Clinic also aims to promote grassroots change by educating the next generation of IP practitioners and entrepreneurs to enhance economic growth by creating and sustaining innovative jobs and talent in Canada. As a pro bono law clinic committed to improving access to justice — and “economic justice” more

pointedly — the Innovation Clinic strives to serve as many clients as possible, given limited human and financial resources. This report examines the structure of the Innovation Clinic and its impact on its law students, clients and the community.

Law schools across Canada can create and house similar clinics to serve clients in their area. By comparing the Innovation Clinic with similar IP and business law clinics in Canada and the United States, this report also identifies the strengths and challenges of the IP legal clinic model and concludes with recommendations for how the Innovation Clinic model can be adapted and developed elsewhere. IP legal clinics are important avenues for improving IP education by providing the IP awareness necessary for Canada's entrepreneurs and law students to become successful in the big-data, tech-driven and knowledge-based economy.

This report confirms other research that identifies a significant lack of IP and related business law clinics in Canada — especially in comparison to counterparts in the United States. Interviews with representatives from other IP and business law clinics in Canada and the United States found that IP law is an underserved area of pro bono assistance in Canada.

There is a clear need for more IP legal clinics in Canada. Significantly, since the start of the Innovation Clinic in 2010, similar programs launched and disappeared because of a lack of faculty and school involvement and support. The recognition of IP legal clinics as a part of Canada's first national IP Strategy offers the potential to catalyze a national community through a network of IP legal clinics and contribute to these goals.

Key Findings and Proposed Recommendations

This research finds that IP legal clinics can play an important role in furthering an inclusive innovation economy in Canada. By providing under-resourced inventors and entrepreneurs with access to IP information and pro bono assistance, IP legal clinics fill an unmet access-to-justice need. At the same time, IP legal clinics train the next generation of IP practitioners through hands-on and real-world experience, which sets them and their eventual clients on a path toward future success. However, the IP legal clinic system in Canada is underdeveloped and in need of support. This report finds and suggests the following:

- IP legal clinics are crucial access-to-justice initiatives that provide law students and under-resourced inventors with the skills and information necessary to succeed in the knowledge-based economy.
 - Governments should invest in IP legal clinics within local, regional, provincial and national economic development strategies.
 - Law societies and foundations need to provide explicit support to creative access-to-justice initiatives, such as IP legal clinics, and recognize their unique and important role in providing access to economic justice.
- Law professors as “faculty champions” are necessary to lead clinics, working to fill gaps in the innovation and IP ecosystem by training the next generation of IP practitioners while increasing the IP savviness of entrepreneurs, but such professors go unrewarded and unsupported from within their own institutions.
 - Universities and law schools need to support experiential education in the IP and technology fields by recognizing, incentivizing and supporting faculty champions through formal recognition (i.e., credit hours, tenure and promotion review), to create and sustain new access-to-justice services.

→ Key stakeholder buy-in (and public visibility of such endorsement) is essential. The support of home universities, home law schools, the legal community, law societies, the private and charitable sectors, and government is needed to start and scale IP legal clinics across the country.

- The federal government and the Canadian Intellectual Property Office (CIPO) should pilot a program in Canada similar to the United States Patent and Trademark Office’s (USPTO’s) Law School Clinic Certification Program (LCCP) and allow certification of law student volunteers based on standardized client service and IP practice criteria.
- Canadian entrepreneurs and inventors lack accessible and specific IP know-how to help commercialize IP and start-ups.
 - A formal network of IP legal clinics should be established across Canada. This network will enable information sharing and promote IP awareness and savviness to help scale companies. Not all clinics will have expertise in a particular subject area (i.e., artificial intelligence), and if an inventor can access a certain clinic no matter where, virtually, as the Innovation Clinic runs, then they can be helped. This clinic network will also allow nascent clinics to grow and more seasoned clinics to develop subject matter expertise to avoid duplication and enable collaboration and knowledge sharing.
 - IP legal clinics should collaborate to ensure that they adhere to a clear and defined mandate that services both client and student needs while increasing assistance to under-represented groups and locations.
- Sustainable funding and dedicated human resources are necessary to allow IP legal clinics to continue to operate, grow and scale up services.
 - The public and private sectors, including alumni and charitable funding bodies, should provide financial support to promising IP legal clinics to ensure sustainability. Such support must specifically address operational support.
- IP legal clinics and their partner law firms and supervising lawyers need a shared mandate and vision to establish a mutually

beneficial relationship to serve their clients and promote IP legal training and awareness.

- The private bar of IP lawyers and access-to-justice-minded professionals should invest in their local entrepreneurial communities by supporting IP legal clinics through pro bono supervision and mentorship.
 - Law societies should encourage and recognize this volunteerism by awarding continuing legal education and professionalism hours or by other creative forms of recognition to individual lawyers or participating law firms that provide clinic-based support to law students and clients.
 - Provincial law societies should seek to standardize and formalize liability and insurance matters for IP legal clinics to encourage the participation of law schools, law firms and funding organizations. This may be done through the Federation of Law Societies of Canada.
- IP legal clinics and other start-up assistance organizations need to determine the scope of their services with respect to the market structure of the areas where they operate.
- Local and regional governments should collaborate with law school faculty and students to avoid duplicating efforts and provide IP information assistance tailored to local and regional needs and goals.
 - The creation of local advisory boards representative of the areas the clinics serve can provide important sources of expertise and ensure proper governance. Representatives from these boards, along with other experts, can ultimately feed into the establishment of an advisory board at the national level of clinics to build inclusion and a stronger, more soundly governed infrastructure.
- Clinic impact and evaluation criteria need to be standardized across clinics with similar objectives.
- Clinics should clearly define their standard operating procedures (SOPs) early and constantly iterate them to promote client and student satisfaction.

Accordingly, clinics should develop client progress and tracking mechanisms.

- Develop IP legal clinics according to the needs and realities of the business world by recruiting and training law students able to volunteer during the summer months and not during the academic calendar, which does not align with business needs.
- IP legal clinic staff members and supervising lawyers must be aware of the international IP environment and international opportunities that benefit clients and students.
- IP practitioners with international experience and networks should explore providing pro bono assistance and supervision via law school clinics.

Introduction

The contributions of “made in Canada” inventions to the advancement of science, technology and business cannot be overstated. Canadian inventions have had a global reach in fields from biotechnology to telecommunications. However, in many instances, this success was made elsewhere due to the outsourcing of commercialization to foreign organizations with more sophisticated IP and business practices. Take, for example, the well-known discovery of insulin by Frederick Banting and Charles Best in 1921 at the University of Toronto. Although Banting and Best are largely credited with the identification and early testing of this life-saving medication, the commercial success of insulin was only realized after partnering with the United States-based pharmaceutical giant Eli Lilly and Company, which helped mass-produce and market the medicine throughout North America. The commercialization of Canadian inventions and IP abroad means that foreign businesses and countries reap a majority of the economic and social benefits. This is particularly troubling when these inventions are the product of research and development funded by Canadian taxpayers.

The ability to recognize, protect and exploit intangible assets through IP commercialization strategies is an essential skill that Canadian

businesses must develop to succeed.¹ Research finds positive correlations between having IP and an IP strategy and firm outcome factors, including firm valuations,² firm survival³ and venture capital funding.⁴ IP is also crucial for international expansion. A recent report found that 22 percent of Canadian companies listed “failure to protect IP” as an external challenge to expanding sales in foreign markets.⁵ However, due to budget pressures, start-ups and SMEs may underinvest in IP protection and commercialization strategies, if they invest at all.⁶ The financial constraints for start-ups and SMEs are especially critical in a specialized field such as IP law, where patent costs are prohibitive and can cost upwards of \$20,000.⁷ These prohibitive costs have long-standing consequences when not addressed early in the commercialization process. The federal government’s Digital Industries Strategy Table finds that companies must give close attention to the strategic importance of IP and how this contributes to their return on investments in the business.⁸

The gap between ingenuity and innovation — wherein a lack of IP education and awareness coupled with an inability to access justice in the form of IP legal assistance impairs the growth of a sustainable and prosperous

entrepreneurial innovation ecosystem — has been accurately described as the “new innovator’s commercialization dilemma.”⁹ Given the increasing importance intangible assets play in the success of Canadian businesses and the overall economy, this finding should be concerning to government policy makers attempting to bridge the innovation gap. The new innovator’s commercialization dilemma is particularly acute for small and first-time inventors seeking to bring their creations to market.¹⁰ A well-developed IP and commercialization strategy can allow high-growth start-ups to scale up by accessing highly skilled talent, more capital and investments, and by expanding domestic as well as international customer bases.¹¹ The lack of access to IP information and assistance weakens the IP savviness of Canadian entrepreneurs and businesses and, ultimately, the country’s international competitiveness in the knowledge-based economy.

Enterprising academic initiatives have sought to address this dilemma and provide crucial access to justice for economic mobility within the knowledge-based economy. One such initiative is the Innovation Clinic, a student-based IP legal clinic currently operated through IP Osgoode.¹² Since 2010, the Innovation Clinic has worked to address the new innovator’s commercialization dilemma by helping start-ups and SMEs overcome the prohibitively expensive barriers to IP protection by assisting inventors, entrepreneurs, start-up companies and SMEs with their IP-related business issues. Recognizing growing challenges to the existing IP framework,¹³ especially as it

1 Giuseppina D’Agostino, “How the IP Strategy Could Transform Canadian Innovation” CIGI, Opinion, 6 September 2018, online: <www.cigionline.org/articles/how-ip-strategy-could-transform-canadian-innovation>.

2 Philipp G Sandner & Joern Block, “The Market Value of R&D, Patents, and Trademarks” (2011) 40:7 *Research Policy* 969; Christine Greenhalgh & Mark Rogers, “Trade Marks and Performance in Services and Manufacturing Firms: Evidence of Schumpeterian Competition through Innovation” (2012) 45:1 *Australian Economic Rev* 50.

3 Raji Srinivasan, Gary L Lilien & Arvind Rangaswamy, “Survival of High Tech Firms: The Effects of Diversity of Product — Market Portfolios, Patents, and Trademarks” (2008) 25:2 *Intl J Research in Marketing* 119; Christine Helmers & Mark Rogers, “Innovation and the Survival of New Firms in the UK” (2010) 36:3 *Rev Industrial Organization* 227.

4 Joern H Block et al, “Trademarks and Venture Capital Valuation” (2014) 29:4 *J Business Venturing* 525.

5 Centre for Digital Entrepreneurship + Economic Performance (DEEP Centre), *Internationalizing Canadian SMEs: The Role of DFATD’s Canadian Technology Accelerators* (Waterloo, ON: DEEP Centre, 2015) at 8, online: <<http://deepcentre.com/wordpress/wp-content/uploads/2015/10/DEEP-Centre-BABI-2-Internationalizing-Canadian-SMEs-September-20151.pdf>>.

6 See Alice Armitage et al, “Startups and Unmet Legal Needs” (2016) 4 *Utah L Rev* 575, online: <<https://dc.law.utah.edu/ulr/vol2016/iss4/1/>>.

7 MaRS, “Filing Canadian and US patent applications: Process timelines and budget” (18 July 2011), online: <www.marsdd.com/mars-library/filing-canadian-and-us-patent-applications-process-timelines-and-budget/>.

8 Canada’s Economic Strategy Tables, *Digital Industries: The sector today and opportunities for tomorrow*, online: <www.ic.gc.ca/eic/site/098.nsf/eng/00017.html>.

9 James W Hinton & Kent C Howe, “The New Innovator’s Commercialization Dilemma: A Report on the CIGI International Intellectual Property Law Clinic” CIGI, Special Report, 29 April 2015, online: <www.cigionline.org/sites/default/files/intellectual_property_law_clinic_special_report.pdf>.

10 Giuseppina D’Agostino, “The Challenges of the Patent System” (2012) 25:1 *IPJ* 57 [D’Agostino, “Challenges”].

11 Benjamin Bergen, “Canada Has a Scale-up Problem, Not a Start-up Problem” in *New Thinking on Innovation*, CIGI, Special Report, 21 November 2017 at 114, online: <www.cigionline.org/publications/new-thinking-innovation>.

12 Conceptualized and founded in 2008 by Giuseppina D’Agostino, IP Osgoode, the Intellectual Property Law and Technology Program at Osgoode Hall Law School is an independent and authoritative body that explores legal governance issues at the intersection of IP and technology. IP Osgoode cultivates interdisciplinary, comparative and transnational research, collaboration, policy thinking and practice based on a tight connection between teaching, research and clinical action.

13 Giuseppina D’Agostino, *Copyright, Contracts, Creators: New Media, New Rules* (Cheltenham, UK: Edward Elgar, 2011).

relates to under-resourced and often under-represented inventors, entrepreneurs and start-up companies,¹⁴ the Innovation Clinic fosters IP commercialization and the dissemination of IP knowledge by offering pro bono IP legal services to entrepreneurs, innovators and the community at large. The Innovation Clinic also aims to promote grassroots change by educating the next generation of IP practitioners to enable the development of the innovation economy of the future.

Provincial and municipal governments, post-secondary institutions, businesses, labour groups and entrepreneurial associations are also beginning to recognize the need for career-ready individuals who can engage in today's labour market and adapt to new and unknown challenges. Experiential education programs offered by law schools represent an organic way of meeting this goal by increasing the IP awareness and sophistication of inventors, start-up entrepreneurs and law students in practical and real-world ways. Through hands-on learning experiences, law students develop and hone their own practical IP and commercialization abilities while improving access to justice by providing pro bono IP information and legal services.¹⁵ Law school-based pro bono clinics benefit their students, home schools and universities, surrounding communities and "innovation districts."¹⁶ Other countries, especially the United States and EU member states, have prioritized the provision of such pro bono services.

As Canada moves beyond its 150th anniversary, the country's current and next generation of inventors and IP practitioners need the education, support and opportunity to contribute to global technological developments and domestic prosperity. The Government of Canada is responding to the challenge. In the 2018 federal budget, the government finally

announced a national IP Strategy.¹⁷ Through the Ministry of Innovation, Science and Economic Development (ISED), the federal government announced it will spend \$85.3 million over five years¹⁸ to allow Canadian entrepreneurs to better protect their assets and access to shared sources of IP. This support has the potential to help Canadian inventors and entrepreneurs acquire needed education and awareness about the importance of IP commercialization. But much more can be done in Canada.

This report examines the structure of the Innovation Clinic and its impact on its clients and law students. By comparing the Innovation Clinic with similar IP and business law clinics in Canada and the United States, and based on interviews with other IP legal clinic members, former clinic fellows, and Innovation Clinic clients, this report also identifies the strengths and challenges of this IP clinic model and concludes with recommendations for how the Innovation Clinic model can be adopted and developed elsewhere (see Appendix 1 for methodology and a framework for success). Like the Innovation Clinic itself, this report contributes to ongoing dialogues about how to educate and train Canada's entrepreneurs and law students for success in the international knowledge-based economy.

The Innovation Clinic

Background

In 2010, the Innovation Clinic was founded by the author at Osgoode Hall Law School to contribute to the growth of the innovation economy in Canada through experiential legal education. The Innovation Clinic had an initial partnership with the Ontario Centres of Excellence (OCE), which provided one year of seed funding as well as a client base consisting of OCE-sponsored businesses that would benefit from targeted IP information and services. The arrangement with OCE was particularly significant, as it was the

14 D'Agostino, "Challenges", *supra* note 10.

15 *Ibid*; Hinton & Howe, *supra* note 9. See also Myra J Tawfik, "Universities Are Failing to Equip Entrepreneurs for Patent Battles" in *New Thinking on Innovation*, CIGI, Special Report, 25 April 2017 at 89, online: <www.cigionline.org/publications/new-thinking-innovation>; Myra J Tawfik, "Addressing a Gap in Canada's Global Innovation Strategy: Capacity Building in IP Literacy, IP Strategy and Access to Affordable IP Legal Services" CIGI, Special Report, 12 September 2016 [Tawfik, "Gap"], online: <www.cigionline.org/sites/default/files/addressing_the_gap_sr_2016.pdf>.

16 Jennifer S Fan, "Coming of Age: Innovation Districts and the Role of Law Schools" (2015) 22 *Clinical L Rev* 91, online: <www.law.nyu.edu/sites/default/files/upload_documents/Jennifer%20Fan%20-%20Innovation%20Districts%20and%20Law%20Schools.pdf>.

17 Canada, Department of Finance Canada, *Equality + Growth: A Strong Middle Class* (Tabled in the House of Commons, 27 February 2018) at 116 [Budget 2018], online: <www.budget.gc.ca/2018/docs/plan/budget-2018-en.pdf>.

18 With an additional \$10 million per year ongoing.

first collaboration to exist in Canada between a law school and a publicly funded innovation accelerator centre. The Innovation Clinic also partnered with Torys LLP, an international business law firm with a high-profile IP law team, to serve as the legal supervisors. Through a competitive request for proposals process, the Innovation Clinic recruited Torys LLP as the founding law firm partner. Supervising lawyers from Torys LLP worked with clinic fellows to identify client needs, create discrete and relevant work plans, and supervise as well as review the clinic fellows' work products from a legal perspective. The Innovation Clinic began serving clients in 2011 with the initial recruitment of nine Osgoode Hall law student volunteers. Since the clinic's launch, the author has developed and overseen the clinic's structure and operations to ensure academic excellence and quality of services, with the assistance of IP Osgoode's assistant director, who has managed the clinic on a day-to-day basis.

Mandate

The Innovation Clinic's mandate is two-fold:

- Ignite an innovative economy by offsetting the prohibitive costs of IP legal assistance by providing pro bono, one-on-one legal information services to inventors, entrepreneurs, start-ups and SMEs.
- Educate and empower law students by preparing them for the professional world, providing them with an opportunity to gain hands-on, practical experience while learning about some of the common early-stage IP and business-related issues under the supervision of practising lawyers.

The Innovation Clinic has a dual client-student mandate, which addresses the IP literacy shortcomings in Canada for law students as well as for inventors and entrepreneurs.

Current Partnerships

The Innovation Clinic currently operates in collaboration with Innovation York, York University's innovation and commercialization office. Under this collaboration, the Innovation Clinic refers its York University-affiliated clients (i.e., York students, faculty and researchers) to Innovation York, and Innovation York refers any of its clients looking for IP services to the Innovation Clinic. In 2016, Norton Rose Fulbright LLP

partnered with the Innovation Clinic as the legal supervising team. Replacing Torys LLP, Norton Rose Fulbright's partnership with the Innovation Clinic complements the firm's own in-house training programs for students and junior associates, and the services offered by Norton Rose's Innovation Law Clinic. In 2018, the Innovation Clinic also partnered with Bereskin & Parr LLP, allowing the clinic to serve more clients. The Innovation Clinic also collaborates with the Lassonde School's Bergeron Entrepreneurs in Science & Technology (BEST) Lab, whereby Lassonde engineering students involved in the BEST Lab incubator utilize the services of the Innovation Clinic for assistance with IP issues and commercialization, while the BEST Lab provides support to the Innovation Clinic clients with product development and prototyping. For example, engineering students have assisted the clinic's fellows with prototyping and creating server architecture drawings for a provisional patent application.

Operating Structure of the Innovation Clinic

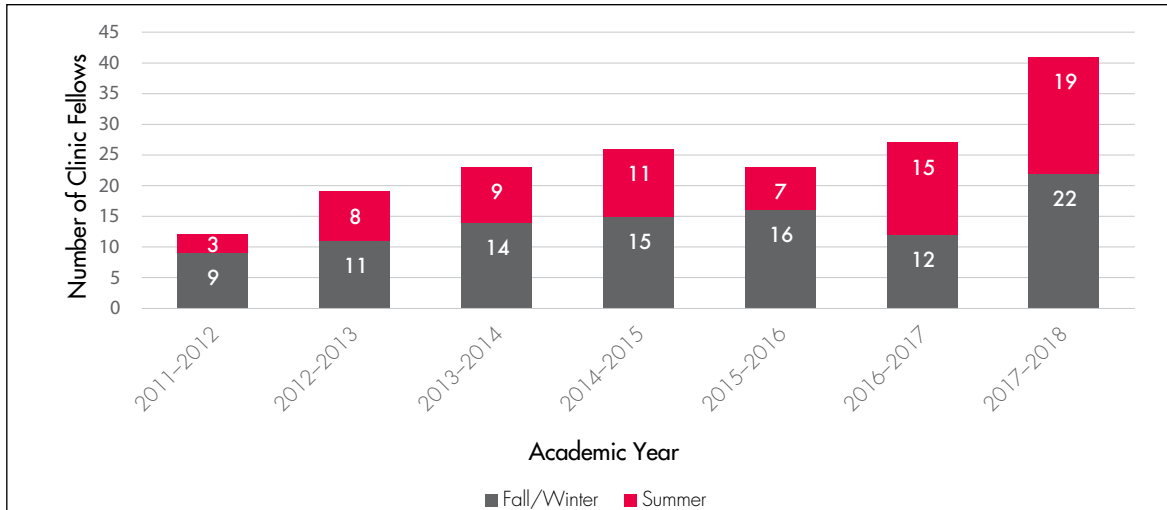
Innovation Clinic Location

IP Osgoode and Innovation Clinic students, referred to as "clinic fellows," and staff are located at Osgoode Hall Law School at York University and the supervising lawyers are located at their firm's office in downtown Toronto. The Innovation Clinic acts as a virtual clinic, in that most meetings between the clinic fellows, supervising lawyer and client occur via video and teleconferencing technology. Regular communication is maintained via email and telephone.

Innovation Clinic Team

As the Innovation Clinic director, the author is a full-time faculty member of Osgoode Hall Law School. Her clinic work includes the academic and operational direction of the clinic as well as seeking and establishing new partnerships and, crucially, funding opportunities. This work is done in addition to her teaching, service and scholarly responsibilities. Through the Innovation Clinic, the author has gained valuable insights into the needs and realities of early-stage entrepreneurs and their interaction with the IP system. Importantly, the author contributes to the practical training and career readiness of law students. The clinic supervisor is a full-time IP Osgoode staff member

Figure 1: Number of Clinic Fellows by Academic Year



Source: Author.

and performs Innovation Clinic work alongside regular IP Osgoode commitments. The supervising lawyers offer their guidance and support pro bono. For most of its time in operation, the Innovation Clinic operated with the assistance of one or two volunteer clinic coordinators to manage client-fellow interactions and the clinic's file management and operations. The clinic coordinators were Osgoode juris doctor (JD) student volunteers who had previously been clinic fellows for at least one term. Through a one-year grant from CIGI, the clinic coordinator became a full-time staff position in March 2017, which provided much-needed stability and day-to-day oversight of client files, fellow management and Innovation Clinic operations. The Innovation Clinic also receives occasional assistance from an Osgoode faculty assistant who serves as the Innovation Clinic administrator.

Educating Clinic Fellows

Clinic fellow positions are open to students in any year of law school and students are not required to have previously taken IP law courses. Importantly, the principle is an inclusive one, where students who want to learn about IP law practice and the issues start-ups and entrepreneurs face are welcome. In practice, students who volunteer as clinic fellows have some technical background, business acumen or a demonstrated interest in IP law and commercialization. Clinic fellows undergo an application process and are assessed and interviewed by Innovation Clinic

staff members. As the Innovation Clinic operates year-round, the recruitment of fellows occurs twice a year for the fall/winter terms and for the summer session. To date, the Innovation Clinic team has trained and supervised 101 clinic fellows and currently operates with 19 clinic fellows¹⁹ (see Figure 1 for a breakdown of clinic fellows recruited since the founding of the clinic).

The Innovation Clinic complements Osgoode's long-standing focus on experiential and work-integrated learning. In addition to the vast array of experiential for-credit offerings, Osgoode students are required to complete 40 hours of law-related activities in the public interest, also known as the Osgoode Public Interest Requirement (OPIR) to graduate. Clinic fellows do not receive course credits for their work; instead they may log their volunteer hours at the Innovation Clinic as OPIR hours.

Clinic fellows receive substantive and practical training sessions with Innovation Clinic staff and the supervising lawyer(s). This training introduces students to the theory and practice of IP law and related business law issues affecting early-stage inventors and SMEs. The training provides students with the necessary background to perform various tasks, such as prior art, patent and trademark searches. The legal supervisors review and approve all the work that clinic fellows complete. In addition to the initial training and "on the job training" the

¹⁹ As of August 2018 (end of Summer 2018 term).

clinic fellows receive from their legal supervisor, all clinic fellows receive a comprehensive *Innovation Clinic Fellow Handbook*. This handbook includes the SOPs for the clinic fellows, which outline the process of communicating, scheduling and responding to client queries from the intake to file-closing stages. The handbook also includes draft emails and templates for regularly used forms and documents. Innovation Clinic staff update the SOPs, templates and forms throughout the term in order to refine best practices and address procedural issues as they arise. In the 2017-2018 academic year, the Innovation Clinic formalized a team-clustered approach to peer-mentoring opportunities with the introduction of Innovation Clinic senior fellows. Senior fellows are volunteers who have completed at least one term with the Innovation Clinic and provide support and guidance to incoming clinic fellows. New clinic fellows benefit from the opportunity to learn from upper-year peers, and senior fellows develop mentoring and interpersonal skills that benefit them during their tenure at the Innovation Clinic and upon graduation.

Confidentiality and Law Society of Ontario Requirements

All communications and information shared between the clinic fellows, supervising lawyers and clients are confidential. All clinic fellows sign a confidentiality agreement prior to performing any work for the clinic. The confidentiality agreement continues indefinitely, even after clinic fellows leave the Innovation Clinic and law school. To help ensure confidentiality, all client files are stored in a secured drive on the law school's network. The secured drive is password-protected and only the clinic director, supervisor or coordinator can grant access. Clinic fellows also receive an Osgoode staff email account to use for all Innovation Clinic correspondence. The staff email accounts have greater security measures than the standard Osgoode student accounts. The clinic fellows copy the clinic coordinator on all correspondence with their clients to ensure consistency and accuracy.

Importantly, in accordance with the relevant rules and regulations of the Law Society of Ontario, Innovation Clinic staff and fellows do not provide legal advice. Clinic fellows work under the supervision of practising lawyers to

provide IP information to clients.²⁰ However, the supervising law firm and clients sign their own separate engagement agreement to establish a solicitor-client relationship.

Role of the Clinic Coordinator

The clinic coordinator oversees the day-to-day operations of the Innovation Clinic. Accordingly, the clinic coordinator is responsible for the following duties:

- maintaining the clinic's records;
- screening incoming clients for fit with the clinic's mandate;
- identifying potential or existing conflicts;
- working with clinic fellows to ensure that information remains confidential;
- facilitating the proper transition of files as clinic fellows leave and join the clinic;
- working with the supervising lawyer(s) to improve best practices and troubleshoot unforeseen issues; and
- liaising with external community partners to maintain relations and client referral networks.

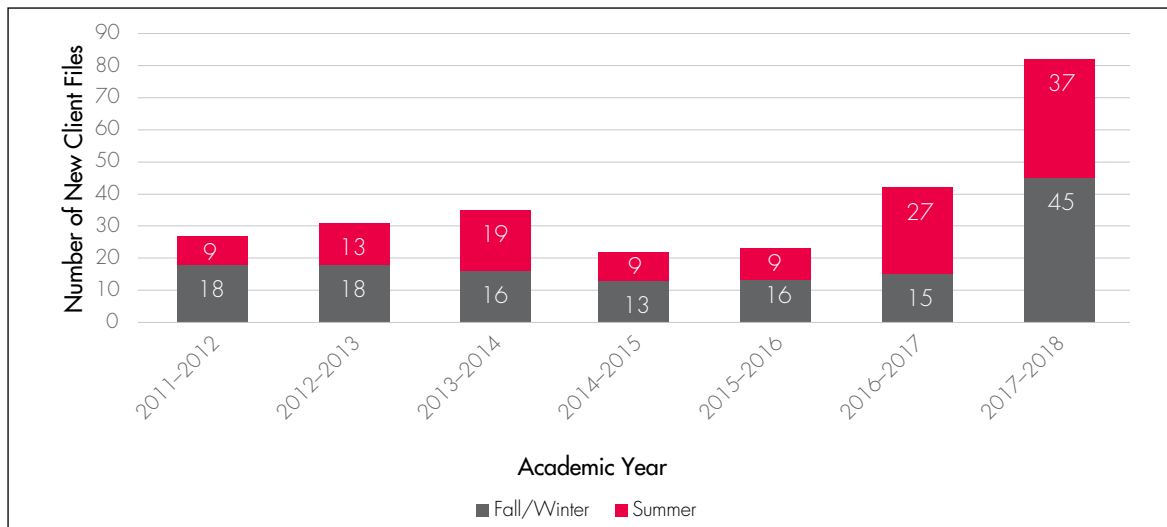
The clinic coordinator assigns potential clients to the fellows and matches them based on their respective technical backgrounds, areas of interest and perceived work needs.

Supervising Law Firms

The supervising lawyer relationship is a key element of the Innovation Clinic model. While other clinics use in-house supervising lawyers or faculty directors, the Innovation Clinic is unique in that it partners with external lawyers who offer their services and mentorship pro bono. Maintaining this relationship requires careful coordination, including training and monitoring of clinic fellows, handling and storage of client information, and scheduling. Concerns have arisen when recruiting partner firms, due to the potential for future conflicts or liability based on a lawyer's work with the Innovation Clinic. Such concerns have dissuaded

²⁰ See Law Society of Upper Canada, "By-law 4" (as updated January 2018), online: <www.lsuc.on.ca/uploadedFiles/By-Law-4-Licensing-01-15-18.pdf>.

Figure 2: New Client Files by Academic Year



Source: Author.

supervising lawyers from being actively involved in the supervision of clinic fellows' work and have led to a more hands-off mentoring approach.

The Innovation Clinic's current partnership model, established with Norton Rose Fulbright in 2016, and with Bereskin & Parr in 2018, addresses such concerns by ensuring that clients enter into separate engagement agreements with both the firm and the Innovation Clinic. The Innovation Clinic engagement agreement sets out that clinic fellows are law student volunteers who will be supervised by practising lawyers to provide specific IP assistance and that clinic fellows will not provide legal advice. The clinic engagement agreement further states that clients are required to execute a separate engagement agreement with the supervising law firm. This partnership model provides a more hands-on supervisory experience for the students and the ability to work with premier IP practitioners. The concurrent engagement agreement with the supervising law firms allows the supervising lawyers to actively engage on client files and oversee the work and training of the clinic fellows as they themselves become counsel for the clients. The practice insurance of the individual lawyers covers the insurance, liability and indemnity issues related to Innovation Clinic clients. Supervising lawyers view collaborating with the Innovation Clinic as a complement to their in-house programs, especially with respect to training, development and recruitment of

highly qualified law students, as well as a way of contributing to the broader innovation ecosystem.²¹

Client Intake and Work Process

As a pro bono law clinic committed to improving access to justice for under-resourced inventors and entrepreneurs, the Innovation Clinic strives to serve as many clients as possible, given limited human and financial resources (see Figure 2: New Client Files by Academic Year).²² This entails working with early-stage start-ups as well as more established SMEs looking to scale up their operations. Innovation Clinic staff members pre-screen potential clients to ensure that they do not have the financial resources necessary to hire professional counsel and will benefit from the Innovation Clinic's assistance. This includes the completion of a background questionnaire and pre-intake call with the clinic coordinator to ascertain the state of the invention or business, the size and history of the company, and membership or relationships with other start-up assistance organizations (SAOs). The Innovation Clinic welcomes recent initiatives among larger SAOs to focus on more mature start-ups and scale-up companies. The Innovation Clinic assists several scale-up

²¹ External Clinic Representative Interview No 11 (23 November 2017). Teleconference. Notes on file with author.

²² The Innovation Clinic does not stipulate a financial cut-off for accepting incoming clients.

companies by assigning more seasoned senior clinic fellows, which gives student volunteers a greater breadth of experiential learning.

Potential clients complete and submit a background questionnaire, which provides information about their invention or creation, familiarity with respect to IP law, state of business development and anticipated needs. Using this information, the partner law firm and Innovation Clinic each perform conflict checks to ensure there are no potential or existing conflicts with a prospective client. The Innovation Clinic takes a considered approach in that it does not accept clients if there is even a perceived conflict of interest with existing or former clients. If no conflicts are identified, an intake meeting is scheduled between the clinic fellow, potential client and supervising lawyer. During this meeting, the potential client receives an IP commercialization consultation in which the supervising lawyer and clinic fellow scope the nature of the potential clients' needs and determine if and how the clinic fellow can assist. Before becoming a client of the Innovation Clinic, the individual or business signs separate engagement agreements with the Innovation Clinic and the supervising lawyer's firm, becoming a client of both the Innovation Clinic and the supervising firm (see Appendix 2: Client Workflow Procedures). Incoming Innovation Clinic clients pay a one-time nominal \$50 administrative fee to offset associated costs.

Following the intake meeting, the clinic fellow and supervising lawyer develop a work plan based on the discussions held during the intake meeting and other required information. The work plan allows students to perform discrete and contained tasks for their clients while being adaptable enough to provide alternate forms of assistance as required. The clinic fellow executes the work plan and provides a draft work product to the supervising lawyer for review. The supervising lawyer reviews and approves the clinic fellow's work before the clinic fellow sends it to the client. In most cases, the parties hold another meeting to review the work product and discuss next steps. The ability to do so is particularly important, given the often-evolving nature of a business's needs and technological developments.

Services

The Innovation Clinic operates year-round and offers various IP and commercialization assistance, including:

- reviewing basic issues in business transactions involving IP;
- freedom-to-operate information;
- patent searches and prior art searches;
- trademark searches;
- provisional and/or non-provisional application drafting and/or review; and
- IP-related contract review (for example, IP assignments and licensing agreements, employment and non-disclosure agreements, and development and contractor agreements).

Innovation Clinic staff and the supervising lawyers recognize that not all early-stage companies and SMEs are the same. For this reason, during the intake meeting, the supervising lawyer and clinic fellow scope the nature of the required work and other tasks as determined by the supervising lawyer (see Figure 3 for a breakdown of the services performed).

Since its launch, the Innovation Clinic and supervising lawyers have provided *an estimated 2,300 pro bono hours*²³ of work to clinic clients. The Innovation Clinic provides this IP support to a client base drawn from other SAOs and strategic partners from across Southern Ontario.

Clientele

As of August 2018, the Innovation Clinic has served approximately 170 unique clients and carries 40 to 50 active files at any given time. The Innovation Clinic primarily services clients across Southern Ontario. The clinic encourages walk-in clients and provides services to members of the Osgoode Hall Law School and York University community, including referrals from Innovation York, the BEST Lab, the Entrepreneurial Development Association,

²³ At current market rates for an IP-specialist lawyer and students-at-law, this represents more than CDN\$600,000 worth of assistance. This figure is an approximation based on the average amount of time spent by the supervising lawyers and clinic fellows on specific tasks or matters and does not include the training and administrative support IP Osgoode and partner firms provide.

Figure 3: Services Performed (as of Academic Year 2017-2018)



Source: Author.

and other on-campus departments and faculties. Other SAOs in the Toronto-Waterloo corridor and the Greater Toronto and Hamilton Area, including York Region, refer clients to the Innovation Clinic. These strategic working relationships have created a diverse referral network for clients that span beyond the Innovation Clinic's immediate physical location and throughout Southern Ontario. In addition to the clients from the York University and Osgoode communities, the Innovation Clinic has serviced referrals from Pro Bono Canada, the York Entrepreneurship Development Institute (YEDI), ventureLAB, the Centre for Social Innovation, the Ontario College of Art and Design (OCAD) University's Imagination Catalyst Incubator, municipal and regional small business and enterprise centres, the Government of Canada's Concierge Service, and ministries of the Ontario government (see Appendix 3 for a breakdown of referral sources). Current and former Innovation Clinic staff and fellows also regularly refer clients from their own networks.

Innovation Clinic Impact

The Innovation Clinic increases the IP expertise of both its clients and students, which contributes to their future success by enabling them to better understand and integrate IP for their business success and professional practice. During the research interviews, both former clinic clients and former clinic fellows indicated they have recommended or will recommend the Innovation Clinic to others. For its clients, the Innovation Clinic increases their IP literacy while reducing the costs associated with leveraging their IP. The IP information the Innovation Clinic provides helps clients understand their freedom to operate and, in turn, provides them with the confidence to develop their inventions into competitive goods and services. For its students, the hands-on

training the clinic fellows receive enables them to better provide practical advice and services in their future IP practice. Innovation Clinic staff and supervising lawyers teach clinic fellows to perform patent, prior art and trademark searches so they can understand how to protect and integrate the IP of a client into their business strategies.

For Clients: Freedom to Operate and IP Awareness

The Innovation Clinic increases the IP awareness and savviness of entrepreneurs and business owners in several industries based on their specific business needs (see Appendix 4 for a breakdown of Innovation Clinic clients by industry). The IP and commercialization consultations the Innovation Clinic provides inform the IP business strategies of clients. These consultations help identify and protect the intangible assets of the client. Through patent, prior art and trademark searches, the Innovation Clinic also provides clients with freedom-to-operate information, so they have the knowledge necessary to prioritize capital allocations throughout the start-up and scale-up stages.

Working with supervising lawyers from leading law firms ensures that the information and services provided by the Innovation Clinic keep the international landscape in mind. Start-ups and entrepreneurs can anticipate the competition in the broader international marketplace and pivot accordingly. As Figure 4 demonstrates, Innovation Clinic clients go on to raise funding, remain active businesses, create new jobs, generate IP assets in the form of patents and trademarks, and win awards.

Former Innovation Clinic clients have been particularly successful when also receiving assistance from other SAOs. For example, the Innovation Clinic assisted an OCE-referred client with freedom-to-operate information via an IP and commercialization consultation as well as a patent and prior art search. This former client

Figure 4: Innovation Clinic Client Success (as of Academic Year 2017-2018)



Source: Business webpages, LinkedIn and AngelList.

Note: Former Innovation Clinic clients have applied for an additional 48 patents and 17 trademarks.

has since applied for 14 patents, registered three trademarks and applied for three other trademarks. The company received \$1.1 million in seed funding and \$14.5 million in Series A funding and recently completed a Series B round of over \$100 million (see Figure 4 for a breakdown of Innovation Clinic client successes). At least two other former clients further demonstrate how properly creating and enacting an IP strategy contributes to business success:

- One OCE-referred client received \$3.3 million in seed funding and closed a \$14-million Series A funding round.
- More recently, a client referred by the BEST Lab won three local incubator competitions and received an estimated \$17,500 in financial assistance as well as other forms of professional support. The former client now employs five people in Ontario.

During the research interviews, former clients indicated their time working with the Innovation Clinic was valuable to the development of their operations and helped them recognize and protect their core assets.²⁴ IP consultations as well as patent and prior art searches provide clients with valuable information regarding the state of the field and their freedom to operate. This helps prevent wasted investments of time and resources while diminishing the likelihood of subsequent and costly legal action from competitors. International research into the strategic management of IP at SMEs finds that organizations need to balance potential new investments with the organizational implications, duration and changes necessary to benefit from creating new intangible assets.²⁵ It is important to

determine one's freedom to operate early on so that the risks of third-party blocking and the hampering of business development can be mitigated,²⁶ especially in the complex IP environment of the high technology industries.²⁷ The patent, prior art and trademark searches conducted by clinic fellows allow clients to ascertain the state of the art in their respective field and plan accordingly. One former client commented that the work the Innovation Clinic provides is more in depth than what inventors can do on their own.²⁸

Much of the impact of the Innovation Clinic for its clients depends on the capacity of the supervising lawyers and the Innovation Clinic staff. Interviewees commented on a marked shift in the quality of the Innovation Clinic's work following the new law firm partnership with Norton Rose Fulbright. One interviewee who worked with the original partner firm and then Norton Rose Fulbright described how the new supervising lawyers work with the clinic fellows to provide more structured, tailored and engaged support. Most interviewees felt that the Innovation Clinic moderately or greatly assisted with the development of their business.

For Students: The Advantages of Experiential Learning

In keeping with its mandate, the Innovation Clinic also provides Osgoode Hall law students with access to work-integrated and experiential learning opportunities in IP and technology law. Clinic fellows enhance their student experiences by taking

24 Former Clinic Client Interview No 2 (8 November 2017). Teleconference. Notes on file with author.

25 Cesare Rossi et al, "The Strategic assessment of intellectual capital assets: An application within Terradue Srl" (2016) 69:5 J Business Research 1598, doi:<10.1016/j.jbusres.2015.10.024>.

26 Gillian M Fenton, "Application of Enterprise Risk Management (ERM) Principles to Patent Freedom to Operate (FTO) Analysis: A Novel 'IP-RM' System" (2016) 4 *les Nouvelles* – J Licensing Executives Society 246.

27 Deepak Somaya, David Teece & Simon Wakeman, "Innovation in Multi-Invention Contexts: Mapping Solutions to Technological and Intellectual Property Complexity" (2011) 53:4 *California Management Rev* 47, doi:<10.1525/cm.2011.53.4.47>.

28 Former Clinic Client Interview No 2, *supra* note 24.

Figure 5: Clinic Fellows' Career Paths (as of Academic Year 2017-2018)



Source: Author.

on greater responsibilities and interactions with clients. One former clinic fellow explained that her time with the Innovation Clinic helped her identify IP law as an area of interest when she was unsure of which area of law to pursue.²⁹ Through practical, hands-on experience, students have assisted start-up and scale-up companies in navigating real-world legal and business challenges. This experiential education contributes to the career-readiness and success of clinic fellows (see Figure 5 for the career outcomes of former clinic fellows).

Clinic fellows do not receive formal course credit for their work. Interviews and surveys with former clinic fellows indicate a mixed preference for obtaining credits for their clinic work. Some clinic fellows worry this would limit their options for taking other courses, especially for those students already completing an IP-based curriculum with substantial credits accumulated, while others believe it would be helpful for attracting more students. The majority of interviewees commented that the experience helped galvanize their desire to pursue a career in IP law. Just as importantly, those interviewees who worked with the Innovation Clinic but did not pursue a career in IP law found their experience helpful for determining which area of law to pursue in the future.³⁰ Clinic fellows who do not pursue an IP law career still benefit by gaining experience interacting with clients, assisting with file work and receiving tailored guidance from the supervising lawyer(s).

The Innovation Clinic in Comparison across Canada and the United States

These findings confirm previous research³¹ that identifies a significant lack of IP and related business law clinics in Canada — especially in comparison to counterparts in the United States. Interviews with representatives from other IP and business law clinics in Canada and the United States found that IP law is an underserved area of pro bono assistance in Canada. While business law clinics in Canada may assist with IP law issues on a case-by-case basis, only the Law & Business Clinic at Ryerson University indicates it can regularly assist with IP law issues.³² Other business law clinics, such as the Queen's Business Law Clinic, intend to increase their IP services.³³

Since the launch of the Innovation Clinic, legal clinics specializing in IP have been piloted throughout Canada, yet only two (the Innovation Clinic and the International Intellectual Property Law Clinic³⁴) remain active and both are located in Ontario.³⁵

²⁹ Former Clinic Fellow Interview No 10 (29 November 2017). Teleconference. Notes on file with author.

³⁰ Former Clinic Fellow Interview No 1 (19 October 2017). Teleconference. Notes on file with author.

³¹ Hinton & Howe, *supra* note 9; Tawfik, "Gap", *supra* note 15.

³² Ryerson University, Law & Business Clinic, "About Us", online: <www.ryerson.ca/tedrogersschool/lawbusinessclinic/about-us/#legalServices>.

³³ Queen's Law, "Intellectual property specialist expands Queen's Business Law Clinic's mandate" (10 August 2017), online: <<https://law.queensu.ca/news/intellectual-property-specialist-expands-queen%E2%80%99s-business-law-clinic%E2%80%99s-mandate-0>>.

³⁴ A program of Windsor Law School and the University of Detroit Mercy School of Law. Previously, the University of Windsor ran a clinic through the Centre for Enterprise and Law, which began in 2010.

³⁵ Updated as of March 2, 2019.

A small number of clinics in Canada have sought to create this win-win situation for Canadian law students, entrepreneurs and SMEs. These have included: the Legal Clinic at the University of Calgary's Centre for Business and Technology, which was a business and technology law clinic with IP and commercialization components (2006–2008); the Norton Rose Fulbright-MaRS Innovation Law Clinic (a course-based program with the University of Toronto Faculty of Law) (2013–2014); the CIGI-Communitech Intellectual Property Law Clinic (Summer 2014); and the CIGI ILRP Windsor Law, Technology and Entrepreneurship Clinic (LTEC) International Intellectual Property Law Clinic (Summer 2015). Another Ontario-based clinic is the Samuelson-Glushko Canadian Internet Policy and Public Interest Clinic at the University of Ottawa, offering a different focus on IP policy- and law-making processes. As well, the Vancouver-based Artists' Legal Outreach is a non-profit society comprised of volunteer lawyers and law students who operate a clinic for artists and arts organizations, which focuses primarily on copyright matters, and is not formally affiliated with a law school or program. Similarly, the Artists' Legal Advice Services operates in Toronto and relies on volunteer lawyers and law students from the University of Toronto.

By comparison, in the 2018–2019 academic year, 89 IP legal clinics were operating in the United States at 78 different law schools in 30 different states and Puerto Rico.³⁶ Interviews with active and former directors of IP legal clinics in Canada and the United States identified important barriers to the development and sustenance of clinics across Canada, including lack of government buy-in, lack of dedicated human resources, lack of institutional and administrative support from universities and law schools, lack of funding and insufficient faculty interest within law schools themselves.

Comparing Government Support for IP Clinics

For at least two decades, Canadian policy makers have been indicating the need to transition from a physical, natural resource-based economy to the intangible, human resource-based economy

of today.³⁷ Yet successive governments have taken insufficient action and have often overlooked the crucial role IP plays in economic growth and development. Canada is currently ranked fifteenth in the World Economic Forum's global competitiveness index;³⁸ the country has fallen two places since 2017 and is now ranked twenty-second on Bloomberg's innovation index.³⁹ To reverse this trend, Canadian businesses of all sizes need to create and enact IP and commercialization strategies to become successful in the fast-developing knowledge-based economy. Other countries, especially the United States and EU member states, have recognized IP legal clinics as a means of increasing IP awareness and sophistication while training law students to become highly skilled future IP practitioners.

For more than a decade, the US government has recognized the important role IP legal clinics can play in supporting the commercialization of innovation. In 2008, the USPTO began a pilot version of its LCCP with US law schools. Through the program, participating law schools can provide free patent and trademark services to eligible clients. Law students gain relevant IP legal experience by drafting and filing patent and trademark applications for clients of the law school clinic. In 2014, a bipartisan bill, H.R. 5108, removed the pilot status and established the program for 10 years. The bill's sponsor, Hakeem Jeffries, described the program as "a win-win for everyone involved. Our legislation will spur innovation and help small businesses, start-ups, inventors and entrepreneurs who otherwise may not be able to afford legal assistance, while providing real-

36 Some law schools operate separate patent and trademark law clinics (for example, the Sandra Day O'Connor College of Law at Arizona State University, Baylor Law School and Howard University School of Law).

37 Canada, *Preparing Canada for a digital world: final report of the Information Highway Advisory Council* (Ottawa: Industry Canada, 1997); Canada, *Building the information society: moving Canada into the 21st Century/Issued by the Information Highway Advisory Council Secretariat* (Ottawa: Industry Canada, 1997).

38 Klaus Schwab & Xavier Sala-i-Martin, *The Global Competitiveness Report: 2016–2017* (Geneva: World Economic Forum, 2016), online: <www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf>.

39 Michelle Jamrisko & Wei Lu, "The U.S. Drops Out of the Top 10 in Innovation Ranking", *Bloomberg* (22 January 2018), online: <www.bloomberg.com/news/articles/2018-01-22/south-korea-tops-global-innovation-ranking-again-as-u-s-falls>.

world experience for law students in the highly-specialized areas of patent and trademark law.⁴⁰

The USPTO's LCCP has proven to be a popular and successful program, which regularly increases the number of participating law schools (see Figure 6 for the growth of the LCCP in comparison to IP legal clinics in Canada), and has expanded access to justice via the provision of pro bono IP assistance for under-resourced actors in the innovation economy.⁴¹

Beyond the United States, IP legal clinics are becoming more established in the United Kingdom⁴² and across the European Union. In particular, the iLINC Network,⁴³ which is based primarily in the European Union but has members in the United States, Israel and Cyprus, serves a similar purpose. Established as a project funded by the European Commission, this network of 29 IP legal clinics operating in 15 countries (12 of which are European) provides free legal services to start-ups while simultaneously offering postgraduate law students the opportunity to engage in professional practice. At the same time, the iLINC network provides practical resources, including practice documents and briefs, for non-member clinics.

Similar to the efforts of the USPTO and European Commission, the World Intellectual Property Organization (WIPO) launched the Inventor Assistance Program (IAP) in 2015.⁴⁴ WIPO worked with the World Economic Forum to create the IAP, which began as a pilot project in Colombia, Morocco and the Philippines. The program has expanded and now includes Ecuador and South Africa. WIPO helps guide local Technology and Innovation Support Centres to screen and

evaluate potential clients. IAP clients are matched with patent attorneys who provide pro bono IP and legal assistance toward obtaining patent protection. WIPO states the program is guided by the belief that “creativity and great ideas come from people of all walks of life, and that a truly sophisticated IP system is therefore one that is accessible to all, without regard to their socioeconomic status, geography or financial means.”⁴⁵ The IAP relies on the involvement of developing country governments, pro bono patent attorneys and law firms, and corporate supporters that help fund and promote the IAP. The program does not involve law school programs or students; however, it fulfills the first aspect of the Innovation Clinic mandate and reflects a growing international consensus that under-resourced inventors and entrepreneurs need structured and credible assistance to protect and promote their business goals and economic interests.

The Canadian landscape requires similar structure and support and recent government initiatives are promising. In its 2018 budget, the Government of Canada announced its intention to improve access to IP support for entrepreneurs as part of its first national IP Strategy.⁴⁶ Some of this funding will support the creation of a team within the federal government to provide tailored IP strategies to bring products to market and into international markets and provide resources for IP legal clinics based at Canadian universities. These are welcome and complementary initiatives and have the promise to expand low-cost access to address the new innovator's commercialization dilemma across Canada. As discussed below, the USPTO LCCP has been successful for incentivizing the creation of IP legal clinics across the United States. However, the specifics of the Government of Canada's funding have not been released and do not appear to be sufficient to provide sustainable operational funding for existing and new IP legal clinics across Canada.⁴⁷ Other levels of government, as well as universities, law schools, funding bodies, philanthropists and university alumni, will also need to contribute.

40 Hakeem Jeffries, Press Release, “House Passes Bipartisan Bill to Boost Innovation, Expand Pro Bono Legal Assistance for Inventors & Entrepreneurs” (16 September 2014), online: <<https://jeffries.house.gov/media-center/press-releases/house-passes-bipartisan-bill-to-boost-innovation-expand-pro-bono-legal>>.

41 See Jennifer S Fan, “Institutionalizing the USPTO Law School Clinic Certification Program for Transactional Law Clinics” (2015) 19:2 Lewis & Clark L Rev 327; Lynnise E Pantin, “The Economic Justice Imperative for Transactional Law Clinics” (2017) 62:1 Vill L Rev 175; R Anthony Reese, “Copyright and Trademark Law and Public Interest Lawyering” (2012) 2 UC Irvine L Rev 911.

42 Elaine Campbell, “Recognizing the Social and Economic Value of Transactional Law Clinics: A View from the United Kingdom” (2016) 65 J Leg Educ 580.

43 iLINC, ICT Law Incubators Network, “Welcome to iLINC, the European Network of Law Incubators”, online: <www.ilincnetwork.eu/>.

44 WIPO, “Inventor Assistance Program”, online: <www.wipo.int/iap/en/>.

45 WIPO, “Inventor Assistance Program: Guiding Principles”, online: <www.wipo.int/export/sites/www/iap/en/docs/iap_guiding_principles.pdf>.

46 Budget 2018, *supra* note 17 at 116.

47 Canada, Innovation, Science and Economic Development Canada, *Intellectual Property Strategy* (announced 26 April 2018), online: <www.ic.gc.ca/eic/site/108.nsf/eng/home#accordion-item-3>.

Supporting a Nationwide Network of IP Legal Clinics

The research interviews provided evidence that the creation of the USPTO LCCP has contributed to the expansion of IP legal clinics in the United States. In particular, interviewees perceived the institutional support from the USPTO as a motivating factor for administration and faculty members to create their own IP legal clinics. One research participant noted how that landscape of IP legal clinics in the country prior to the launch of the program was similar to the current state in Canada: there were few IP legal clinics operating across the country. Following the creation of the pilot program in 2008, the research participant saw an increased interest from faculty and administrators at law schools across the country in creating their own clinics. Recognition from, and affiliation with, a governing body heightened demand as law schools saw the opportunity for greater benefits to their schools and students. An interviewee based at a long-running US IP law school clinic commented that the USPTO LCCP is “a fantastic program” and that the USPTO regularly responds to the on-the-ground experiences of clinics to update and improve best practices.⁴⁸

From the six schools that participated in the USPTO LCCP 2009 pilot program, the number of participating schools rose to 45 in 2016.⁴⁹ The fact that the initial pilot program of six schools is three times the number of active IP legal clinics in Canada should be an illuminating cause for inspiration for Canadian policy makers and law schools as well as university administrators.

Law schools must apply to be part of the USPTO LCCP,⁵⁰ which provides law schools with increased exposure to the IP clinical offerings and of experiential learning programs more generally. The USPTO maintains an online list of participating law schools, their contact information, areas of practice (patents, trademarks or both), and the geographic area from which clients will be accepted.⁵¹ The USPTO lists 78 participating schools and 89 clinics available to serve clients from the United States. In comparison, Canadian IP legal clinics peaked at a total of four in 2011 and the number has remained steady at three clinics (one of which focuses on IP policy and law making more broadly) since 2012. Even when business law clinics are included, the number of law school clinics available to assist Canadian entrepreneurs is inadequate (see Figure 6 for a comparison of the IP and business law clinics in Canada and the members of the LCCP). An interviewee from a Canadian law school clinic found that support for clinics in the United States is stronger than in Canada, especially in terms of formal recognition and credit for the work faculty directors perform and the financial support available from the public and private sectors, charitable organizations and other funding bodies.⁵² IP legal clinics in the United States benefit from the support of alumni networks as well as from philanthropists and charities looking to support the IP and innovation

48 External Clinic Representative Interview No 4 (7 November 2017). Teleconference. Notes on file with author.

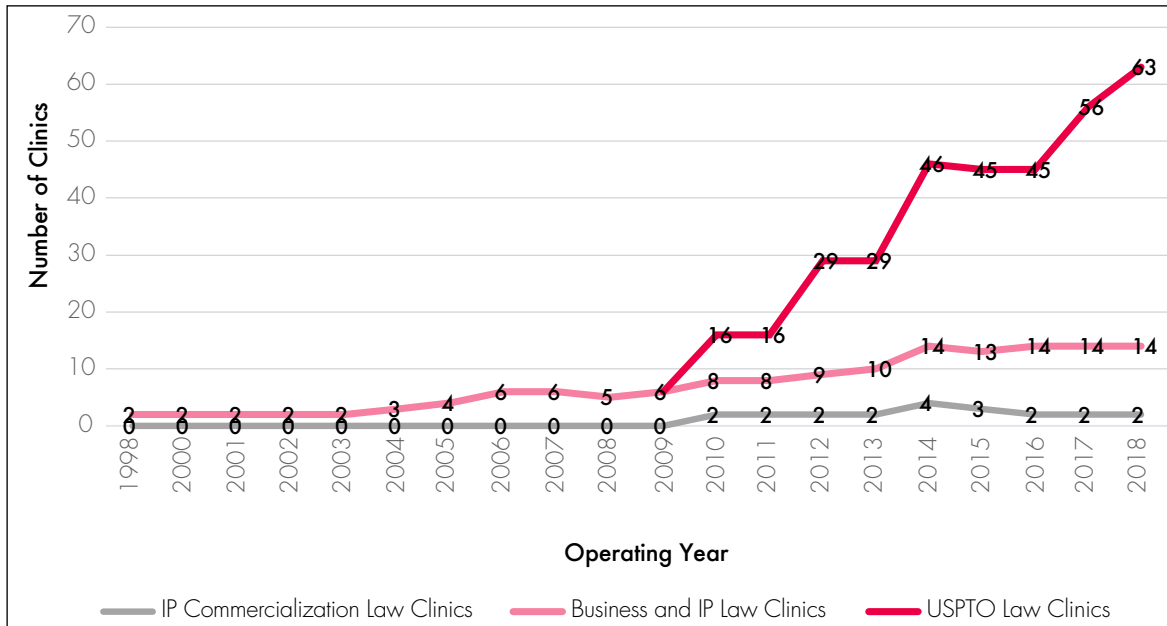
49 USPTO, Office of Enrollment and Discipline of the United States Patent and Trademark Office, *Report on the Law School Clinic Certification Program*, Report to Congress (December 2016), online: <www.uspto.gov/sites/default/files/documents/USPTO_Law_School_Clinic_Cert_Program_Report-Dec_2016.pdf>.

50 Law schools must meet criteria and regulations set out by the USPTO, including: all law schools must be accredited by the American Bar Association; all services must be provided pro bono; clinics must have protocols to ensure a seamless transition of files from student to student or semester to semester; the law school dean, or authorized representative, must certify that the clinic is matriculated in and in good standing with the law school; the law school dean, or authorized representative, must certify that participating students are in compliance with the law school's ethics code and have completed their first year of law school, and that a process is in place to ensure there are no conflicts of interest for clients; the faculty clinic supervisors are responsible for the work performed through the clinic; the faculty clinic supervisor must be the attorney-of-record in all patent and trademark applications; and, for both patents and trademarks, the faculty clinic supervisor must be a registered patent attorney or patent agent in good standing or a licensed attorney in good standing, as the case may be, with at least three years' experience prosecuting applications before the USPTO within the last five years. See USPTO, *Law School Application Packet: 2016 Expansion* (2016), online: <www.uspto.gov/sites/default/files/documents/2016_Law_School_Application_Packet.pdf>.

51 USPTO, “Law School Clinic Certification Program”, online: <www.uspto.gov/learning-and-resources/ip-policy/public-information-about-practitioners/law-school-clinic-1>.

52 External Clinic Representative Interview No 16 (24 January 2017). Teleconference. Notes on file with author.

Figure 6: IP Commercialization and IP-related Business Law School Clinics (in Canada and the United States)



Source: Author.

Note: Figure includes only US clinics operating as part of the LCCP.

ecosystems across the country.⁵³ These factors contribute to the vast discrepancy of the numbers of IP clinics in Canada and the United States.

Depending on how it is allocated, the forthcoming federal funding for IP legal clinics at Canadian universities could help spur an IP clinic movement in Canada by sustaining existing operations and incentivizing other law schools to create similar clinics from coast to coast. Multiple interviewees stated that more support from governments, universities and law schools is needed to sustain and scale up existing clinics, to encourage the development and engagement of a network of IP clinics across the country, and to increase IP law services offered by existing business law clinics. A director from a US clinic described the evolution of IP and related law clinics in the United States as going in “waves,” but the crucial element is taking the first step and establishing a clinic in the first place.⁵⁴

This report proposes that the virtual clinic model established by the Innovation Clinic can be adopted by nascent IP legal clinics to develop congruently with the specific circumstances of their geographic locale. Collaborating with outside legal supervisor(s) allows the Innovation Clinic to leverage the expertise of like-minded lawyers working to improve the IP and innovation ecosystems through the provision of pro bono access to justice via the availability of IP information. The use of tele- and video conferencing allows the Innovation Clinic to serve clients across Southern Ontario and beyond. This model can be adopted by those seeking to establish an IP legal clinic of their own: collaborating with the local bench or alumni networks for legal supervisory support can allow law school-based IP legal clinics to access legal expertise and provide IP information and assistance to a clientele that spans their immediate proximity. Importantly, the virtual clinic model can be used to provide access to justice in the form of pro bono IP information and assistance to entrepreneurs and innovators who cannot physically attend a meeting in an urban city centre. The Innovation Clinic model holds promise for furthering the innovation ecosystem of regularly marginalized

53 Cynthia L Dahl & Victoria F Phillips, “Innovation and Tradition: A Survey of Intellectual Property and Technology Legal Clinics” (2018) U of Penn Law School, Public Law Research Paper No 18-13, online: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3184486>.

54 External Clinic Representative Interview No 4, *supra* note 48.

communities in northern, remote or rural locations, which was identified as a goal in Budget 2016.⁵⁵

Funding, Faculty Champions and Human Resources

Interview findings demonstrate that the lack of funding from universities, law schools or external funding agencies is a significant barrier to the creation of new clinics in Canada. Existing clinics benefited from small seed grants to establish clinical opportunities. However, the uncertain nature of such funding prevents clinic directors and staff from focusing on long-term development, as they must undertake constant rounds of grant application drafting and sponsorship recruitment. Clinic representatives from across Canada commented on the challenges associated with short-term and uncertain funding. The precarious funding situation prevents clinics from hiring or maintaining dedicated human resources necessary to oversee the day-to-day clinic operations. Currently, IP legal clinics in Canada have been able to serve a limited number of clients at a time (see Table 1 for approximate training and assistance figures).

Most significantly, to maintain operations, faculty directors often juggle their teaching, service and scholarly responsibilities to ensure their clinics run smoothly. Clinic directors commented that running a law clinic takes “Herculean” effort and that existing arrangements do not provide support by way of academic credit or other recognition for clinical work, nor the necessary funds for human resources.⁵⁶ Another former clinic director described the difficult process of gaining the buy-in needed to establish the clinic in the first place.⁵⁷ As well, a different former clinic director commented that he ran a clinic for a year in the hopes that other colleagues would continue to operate it, but this did not happen,

as other faculty members were not interested in clinical work.⁵⁸ Financial and institutional support (especially by way of academic credit to faculty) is necessary to encourage faculty champions and the creation of more efforts to increase IP awareness and education in Canada. Other challenges also include the considerable time and involvement of relevant faculty/clinic directors and university counsel to negotiate the terms and conditions for the operation of legal clinics, which may vary from province to province pursuant to the limitations and requirements of the law societies in question.

The role of law professors in establishing IP legal clinics is crucial. Law professors serve not only as the directors of fundraising, overseeing the recruitment and training of students and operations of the clinic, but also must act as the champion of this under-noticed and often misunderstood area of access to justice. Interviews with other faculty directors in Canada and the United States confirm the belief that Canadian law schools do not fully appreciate the important work IP legal clinics play in providing access to economic justice. Faculty members who operate traditional forms of access-to-justice initiatives are typically recognized and often receive course release and/or have their clinical contributions recognized in their tenure and promotion reviews. This is not often the case for those working to advance access to justice in innovative ways. Law schools and law societies should continue to expand their definitions of access to justice to include programs such as IP legal clinics, which play an important role in providing IP information, awareness and assistance to under-resourced individuals so that they can engage in the knowledge-based economy.

Representatives from other Canadian IP and business law clinics also identify a difference between the Canadian and US landscapes. In particular, Canadian clinics depend on the quality and support of the local IP (or business) law community. One clinic director commented that their clinic relies on law school alumni and retirees to volunteer as review counsel. Another director at a business law clinic located in a large Canadian city has established a network of firms and lawyers to provide pro bono review and supervision on IP matters. As another interviewee commented, the resources and

55 Canada, Department of Finance Canada, *Growing the Middle Class* (Tabled in the House of Commons, 22 March 2016) at 104, online: <www.budget.gc.ca/2016/docs/plan/budget2016-en.pdf>.

56 External Clinic Representative Interview No 14 (5 December 2017). Teleconference. Notes on file with author.

57 The former director of an IP legal clinic found: “There was skepticism amongst people to have a clinic....Some people were skeptical of the nature of the clinic. They’d understand a clinic for people that cannot afford legal services for criminal law or family law or other matters but the assumption for IP and business was that everyone starting a business should or could be able to afford it.” External Clinic Representative Interview No 5 (7 November 2017). Teleconference. Notes on file with author.

58 External Clinic Representative Interview No 15 (7 December 2017). Teleconference. Notes on file with author.

Table 1: Estimated Average Student and Client Work Loads at One Time

	Number of Students at a Time	Number of Clients at a Time	Supervision and Support
Innovation Clinic , established in 2010 (*current figures)	22*	Maximum 50*	one unpaid/uncredited faculty member director, one full-time (dedicated clinic staff), one part-time (undedicated clinic staff) and two pro bono volunteer lawyers
CIGI-Communitech Intellectual Property Law Clinic , Summer 2014 (summer pilot program)	7	50 (20 engaged clients and 30 provided with informational assistance)	one full-time (supervising lawyer)
International Intellectual Property Law Clinic (previously part of the Centre for Enterprise and Law, established in 2010) *figures are approximate	6 to 10	five new clients per term* (clients may carry over terms)	one full-time academic director/supervising lawyer
CIGI ILRP Windsor LTEC International Intellectual Property Law Clinic , Summer 2015 (summer pilot program) *figures are approximate	three students and one articling student	five new clients per term*	one full-time (director/supervising lawyer)
Legal Clinic at the University of Calgary's Legal Centre for Business and Technology , 2006-2008 *figures are approximate	25 students* (working in groups of five)	5 to 10*	one part-time (faculty member director) working on overload as part of a course
Norton Rose Fulbright-MaRS Innovation Law Clinic , 2013-2014 (with University of Toronto) *figures are approximate	10 to 12*	10 to 12*	one part-time (adjunct faculty member as supervising lawyer), law firm administrative support and one part-time university-based administrator

Source: Author.

professional support necessary to develop clinics across the country will require different models of legal supervision and administrative support since clinics located in larger city centres will be able to draw from larger pools of potential legal supervisors.⁵⁹ Furthermore, it is difficult to find legal supervisors willing to work full time with a pro bono IP legal clinic, given the other professional opportunities available to IP specialists.⁶⁰

Clinics in the United States rely on in-house counsel, sometimes in the form of a full-time law professor, who oversee the work of the students and organizes the clinic as a mock law firm.⁶¹ The International IP Law Clinic uses supervision from both the clinic director and external supervising attorneys.⁶² Other clinics, such as the Innovation Clinic, leverage partnerships with external law firms and counsel. In the United States, especially when the clinic forms part of a credited course, the clinic director serving as counsel fulfills their teaching requirements through the clinic.⁶³ In other cases, for-credit clinic directors receive the law school's regular allotment of teaching credit based on the length of the course. IP and business law clinics in Canada and the United States use various model structures (see Table 2 for the academic and support structures of Canadian IP legal clinics), but share a similar mandate: to provide experiential learning opportunities to law (and business) students while providing tangible assistance to real-world entrepreneurs.

All the clinics that participated in the research interviews indicated that the supervising lawyer reviews the students' work before clients receive it. There were discrepancies between the levels of oversight given to student communications with clients. Some clinic administrators and supervising lawyers review all correspondence sent while others take a hands-off approach when it comes to communications necessary for scheduling meetings

or obtaining further information.⁶⁴ In all cases, students are prohibited from providing legal advice and the supervising lawyer reviews their work product. Canadian IP legal clinics also differ regarding how they formally engage their clients. As discussed above, Innovation Clinic clients enter into separate engagement agreements with the clinic and the supervising lawyer(s). The University of Calgary's Legal Centre for Business & Technology Legal Clinic engaged clients directly, having them waive any and all future claims against the students, clinic, university and mentors.⁶⁵ The lack of clarity and standardization surrounding client engagement and accompanying liability, indemnity and insurance matters creates greater uncertainty for law schools and faculty members seeking to establish their own IP legal clinics.⁶⁶ The Government of Canada and other organizations with national scope and mandate, such as CIPO, the Federation of Law Societies of Canada and the Intellectual Property Institute of Canada, have important roles to play in forming a national community of IP legal clinic faculty leaders who can inform legal education at their respective law schools. For instance, a committee could be established under the auspices of the Federation of Law Societies to standardize rules applying to IP legal clinics and provide guidance to facilitate such clinics as part of legal education.

Client Participation Criteria

Some IP legal clinics in the United States use a financial threshold as a cut-off to determine eligibility for services; however, the majority of clinics in Canada and the United States do not have a set level. Instead, like the Innovation Clinic, these clinics take a more holistic perspective to identifying client needs, while also considering the benefits of the requested work on the development of the students. In general, the majority of clinics assist as many entrepreneurs and inventors as

59 External Clinic Representative Interview No 16, *supra* note 52.

60 External Clinic Representative Interview No 1 (24 October 2017). Teleconference. Notes on file with author.

61 External Clinic Representative Interview No 4, *supra* note 48; External Clinic Representative Interview No 6 (9 November 2017). Teleconference. Notes on file with author.

62 International Intellectual Property (IP) Law Clinic, "Clinic Staff", online: <www.internationalipclinic.com/clinic-staff/>.

63 External Clinic Representative Interview No 6, *supra* note 61.

64 For example, the Business Law and Trademark Clinic at the University of Tennessee College of Law reviews student communications until staff feel comfortable in the student's ability to communicate with clients. At the International IP Law Clinic, the clinic director generally takes the lead on communications.

65 University of Calgary, Legal Centre for Business & Technology, "Client Agreement", online: <www.ucalgary.ca/biztechlaw/files/biztechlaw/Client%20Agreement.pdf>.

66 Hinton & Howe, *supra* note 9 at 9. Pro bono work is generally covered by professional liability insurance (see LawPRO, *2018 Professional Liability Insurance for Lawyers and Related Insureds* (Toronto: LawPRO, 2018), online: <https://lawpro.ca/insurance/pdf/LAWPRO_Policy2018.pdf>.

Table 2: Academic and Legal Support Structures

	Academic	Legal Supervision	Client Engagement (Insurance, Liability Coverage)
Innovation Clinic , established in 2010	Osgoode Hall Law School Full-year and volunteer-based (no academic credit)	Partner firm (external supervising lawyers)	Client engages clinic and partner firm separately (external lawyers' practice insurance)
CIGI-Communitech Intellectual Property Law Clinic , Summer 2014	Summer pilot (non-academic)	Independent contractor, supervising lawyer (and external mentors)	Client directly engages the clinic supervising lawyer (supervising lawyer's practice insurance)
International Intellectual Property Law Clinic (previously part of the Centre for Enterprise and Law, established in 2010)	Joint program between Windsor Law and University of Detroit Mercy School of Law Full-year and academic courses three terms per year, three class hours and nine clinic hours per week	Full-time, licensed practitioner, academic director/supervising lawyer (and external mentors)	Client directly engages the clinic (law school carries liability insurance)
CIGI ILRP Windsor LTEC International Intellectual Property Law Clinic , Summer 2015	Summer pilot (non-academic)	Full-time, licensed practitioner, clinic director/supervising lawyer (and external mentors)	Client directly engages the clinic (law school carries liability insurance)
Legal Clinic at the University of Calgary's Legal Centre for Business & Technology , 2006-2008	University of Calgary Faculty of Law Academic course/seminar component (not during the summer)	Faculty in-house course director and clinic director (and external supervising mentors)	Client directly engages the clinic (waives claims against the students, university and mentors)
Norton Rose Fulbright-MaRS Innovation Law Clinic , 2013-2014 (with University of Toronto)	University of Toronto Faculty of Law Academic year, course-based	Adjunct course director as clinic director/supervising lawyer	Client directly engages partner law firm (external lawyer's practice insurance)

Source: Author.

possible. A financial threshold makes it difficult to account for the specific nature of each client. At the same time, like the Innovation Clinic, other clinics do not wish to subtract from the work of paid professionals and determine client accessibility based, in part, on whether the client can afford to hire counsel in the local market.

Services Offered and Availability

The services offered by IP legal clinics in Canada and the United States are similar. However, in Canada, uncertainty surrounding provincial and law society regulations detracts from the types of services clinics can offer. Explicit support from CIPO and law societies is a means of spurring the creation of more IP legal clinics across the country. Clinics participating in the USPTO LCCP specialize in patent or trademark law, which depends on the speciality of supervising lawyers and students. Importantly, however, students in the USPTO LCCP are permitted to draft and file patent and trademark applications for clients of the law school clinic at the USPTO.

As noted above, the Innovation Clinic operates year-round, which is distinct from differently modelled and course-based clinics. The majority of Canadian clinics operate during the summer term and there are wide variations in how clinics operate during the summer months: the now-closed Intellectual Property Law Clinic at the University of Calgary's Faculty of Law did not operate over the summer months; the policy-based Samuelson-Glushko Canadian Internet Policy and Public Interest Clinic at the Centre for Law, Technology and Society, University of Ottawa, employs a limited number of paid students during the summer; and the International IP Law Clinic at the University of Windsor generally operates during the summer term. CIGI piloted two clinics during the summer months: the CIGI-Communitech Intellectual Property Law Clinic (2014) and the CIGI ILRP Windsor LTEC International Intellectual Property Law Clinic (2015).

During the summer months, clinics may reduce the types of services offered and focus on planning the intake of clients and general dissemination of legal information. Historically, the Innovation Clinic reduces the number of clinic fellows working during the summer months. This is because many law students seek paid employment over the summer to help cover educational costs. Nonetheless, the Innovation

Clinic operates on a year-round basis. The use of two recruitment periods — one for the academic year and another for the summer — allows the Innovation Clinic to recruit law students who have the time and commitment necessary to continue serving clients during the summer months.

Evaluating Impact

A common issue noted by all clinic personnel interviewed was determining how best to track and evaluate the impact of the clinic's work, especially as it relates to client success. This is similar to the challenges in the broader SAO landscape in Canada.⁶⁷ Research participants recognize that no single activity or form of assistance guarantees client success and that it is difficult to quantify how much the support from the clinic has contributed to the development of a business, especially if clients also receive support from other SAOs. There are no formal tracking methods used by the clinics interviewed; however, long-running and for-credit clinics in the United States have well-developed pedagogical expectations and evaluations for their students. The Innovation Clinic continues to develop a framework and metrics for tracking IP legal clinic impact and success (see Appendix 1 for initial guidelines).

Conclusion and Path Forward

The Innovation Clinic is akin to a start-up maturing into its scale-up phase. After almost a decade of operations, the Innovation Clinic director and staff actively improve the student experience and client services, identify challenges and implement processes to ameliorate recurring problems. Since its inception, the primary objectives of the Innovation Clinic have been to provide pro bono IP legal information to clients who cannot afford to hire IP law professionals and to provide law students with practical IP law experience. To achieve these objectives, the Innovation Clinic

⁶⁷ DEEP Centre, *Evaluating Business Acceleration and Incubation in Canada: Policy, Practice, and Impact* (Waterloo, ON: DEEP Centre, 2015), online: <<http://deepcentre.com/wordpress/wp-content/uploads/2015/10/DEEP-Centre-BABI-1-Taxonomy-and-Performance-Measurement-September-20151.pdf>>.

director and staff develop processes to inform and refine clinic policies and procedures. In particular, the Innovation Clinic is working to expand the types of legal work and client interactions available to clinic fellows. This includes the formalization of a peer-mentoring system through senior clinic fellows, increased outreach to community members and partner organizations in the form of one-to-many IP information sessions, and participation in structured IP assistance events. These initiatives complement the existing pro bono services available to clients from across Southern Ontario.

IP Legal Clinics and Access to Economic Justice

Law schools and law professors can play a pivotal role in addressing the IP education and innovation gaps in Canada. Since the Innovation Clinic's founding in 2010, the clinic worked alongside similar clinics across Canada to provide start-ups and inventors with pro bono IP information and assistance while also training the next generation of IP legal practitioners. However, the Innovation Clinic and the International IP Legal Clinic remain outliers: various pilot programs brought the total number of such clinics to a high of four in 2014, which has since regressed to the historical baseline of two. Meanwhile, the United States and EU member countries have taken the lead and increased the number of IP legal clinics in their jurisdictions.

To grow the number of clinics in Canada and help scale existing ones, an IP clinic network should be established in Canada, aiding clinics in setting up and providing operational support, resources and know-how to one another. Without the support of a national IP clinic network to promote IP education and protect Canadian-made IP from the grassroots, Canada's ability to compete internationally in the knowledge-based economy will likely be stunted.

The evaluation of the Innovation Clinic and comparative analysis with IP legal clinics in Canada and the United States identify crucial strengths and challenges specific to their implementation. Similar clinics could be housed within law schools across Canada. In order to benefit clients and students, these clinics need to maintain year-round operations that enable the seamless transfer of files between outgoing and incoming students while serving the evolving needs of start-ups and entrepreneurs. There need to be more incentives for law schools, law professors and law

students to continue improving access to justice and the growth of the innovation ecosystem.

Importantly, Canadian law schools will need to recognize the clinical work of faculty members and students as core educational activities. Law schools and universities will need to recognize and account for the clinical work faculty members perform as valuable access-to-justice work and, in the case of in-house counsel models, will need to reassess their hiring and tenure policies to attract and retain the faculty champions needed to establish and maintain IP legal clinics.

Similarly, IP legal clinics require dedicated, full-time administrative and managerial positions to effectively train students, properly serve clients and avoid liability issues. For example, the Innovation Clinic staff provides the consistency and institutional memory needed so that clients have continuity during the evolution of their businesses, which may take longer than an academic term or year, and manage the clinic operations outside of a classroom or fixed environment.

Expanding and Tailoring IP Legal Clinics for Distinct Communities

The structure of IP legal clinics is crucial and should be developed according to local and regional innovation ecosystems. IP legal clinics can assist existing SAOs by offering tailored one-to-one IP assistance and general one-to-many IP information sessions. Local law firms can provide crucial pro bono legal supervision and assistance, which contributes to the local innovation community while enabling access to justice for under-resourced entrepreneurs. Alternatively, legal supervision by in-house counsel should be pursued in situations where the local bar cannot support clinical work. The virtual clinic model of the Innovation Clinic also enables IP legal clinics to provide valuable IP information and resources to clients located in areas where there is no law school. Potential clinics can be served by IP legal clinics located elsewhere and connect via tele- and video conferencing.

A National Network of Clinics and Standardization

Federally, ISED and CIPO are developing strategies and plans to improve IP support for Canadians and the innovation ecosystem. Along with the ISED measures outlined in the national IP Strategy, CIPO has been instructed to work with business,

intermediaries and academia to increase IP education and awareness initiatives.⁶⁸ This directive contributes to CIPO's five-year business strategy,⁶⁹ which includes measures to "advance innovation" and "build IP awareness and education." The challenge going forward will be to implement policies and programs that encourage and support the commercialization efforts of under-resourced and under-represented Canadian inventors and entrepreneurs. Canada's national IP Strategy should be informed by the best practices developed at the Innovation Clinic and International IP Law Clinic to spur an IP legal clinic movement across Canada.

To establish sound support and infrastructure to aid clinics, a formal network of clinics should be established in Canada, akin to iLINC in the European Union. This network, properly governed, would allow support for nascent clinics and sharing of specialized knowledge between established clinics. For example, a clinic may develop expertise in commercializing a certain technology or working with a specific sector and share this knowledge with less experienced clinics. In this way, knowledge gaps could be bridged and duplication of expertise avoided, while providing a wider range of accessible services to the public. By fostering collaboration between clinics, clients and students, ultimately, Canada's innovation ecosystem will better flourish.

In addition to these efforts, provincial law societies should seek to standardize and formalize liability and insurance matters for IP legal clinics to encourage the participation of law schools and funding organizations. Similarly, to ensure buy-in and participation of law firms and supervising lawyers, law societies should encourage and recognize this volunteerism by awarding continuing legal education and professionalism hours or through other means.

Importance of Multi-stakeholder Support, Engagement and Governance

Besides the federal government, other provincial and territorial levels of government as well as

the private and charitable sectors can support the growth of IP legal clinics and, in turn, the innovation economy. Securing sustainable, long-term funding is an ongoing concern for faculty and clinic directors. Existing clinics often operate on a short-term funding basis with cobbled resources, which detracts from broader community engagement, optimizing best practices and academic work. Dedicated funding and human resources enable IP legal clinics to connect with like-minded organizations and enhance service offerings for students and clients alike.

The creation of advisory boards representative of the areas clinics service can be important sources of expertise and support and ensure proper governance. Drawing members from the home university, home law school, government, IP professionals, business and community organizations (especially alumni), and surrounding SAOs will enable IP legal clinics to establish deeper ties with the stakeholders they serve while attracting increased attention and, hopefully, much-needed resources. Such engagement will also allow IP legal clinics to respond to changing technological, business and community circumstances within their home locale. Ultimately, such boards can feed into a larger advisory board at the national level to assist in the governance and inclusivity of the network of clinics.

A "Win-win" for Canada in the Twenty-first Century

Looking ahead, the Innovation Clinic and those wanting to create or support viable IP legal clinics across the country need to address how to establish and maintain operations that benefit students and serve as the bedrock of the broader innovation community. The Innovation Clinic has operated with limited resources to support and reward its administrative staff and employ year-round full-time personnel.

There is a clear need for more IP legal clinics in Canada. Since the founding of the Innovation Clinic in 2010, similar programs were launched and disappeared because of lack of faculty and school involvement and support. The IP legal clinics that remain have done so because of their faculty champions, but continue to operate with inconsistent financial and human resources. Law schools, universities, governing bodies, expert groups and various levels of government need to recognize the win-win nature of IP legal clinics

⁶⁸ Budget 2018, *supra* note 17 at 117.

⁶⁹ CIPO, *Canadian Intellectual Property Office Five-Year Business Strategy (2017–2022)* (Gatineau, QC: CIPO, 2017) at 13, 25, online: <[www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/vwapj/StrategieAffaires-BusinessStrategy20172022-eng.pdf/\\$file/StrategieAffaires-BusinessStrategy20172022-eng.pdf](http://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/vwapj/StrategieAffaires-BusinessStrategy20172022-eng.pdf/$file/StrategieAffaires-BusinessStrategy20172022-eng.pdf)>.

and support their sustainability and expansion across the country. Crucially, IP legal clinics work to fill gaps in the broader innovation ecosystem while offering students practical, hands-on experience in IP and related business law matters. All levels of government, Canadian universities, law schools, policy makers and funders should support IP legal clinics with the financial resources necessary to maintain long-term operations and offer approval as well as accreditation to the needed IP activities these clinics perform.

ISED's recent leadership is commendable. As the Government of Canada begins to execute its national IP Strategy, ISED has brought together leading Canadian institutions, including Osgoode Hall Law School, the University of Ottawa and the University of Windsor, to spearhead a workshop in 2019 and formulate a "clinic in a box" — a tool kit to create clinics across Canada. The proceedings from the workshop, to be organized by Osgoode Hall Law School, and the toolkit will aim to advance and support similar clinical legal initiatives and education.

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Appendix 1: Report Methodology and the Innovation Clinic Impact and Success Framework

Report Methodology

This report combines primary and secondary analysis and empirical research consisting of document and literature reviews, as well as qualitative interviews and online surveys. The report analyzed publicly available data from innovation ecosystem actors, such as SAOs, colleges, universities and private companies, as well as primary documents from municipal, provincial, federal and international governments. The research team reviewed public reports from international organizations and secondary sources, including law review articles and other scholarly literature. In-depth research into the IP legal clinic landscape in Canada and the United States was completed using previously published material⁷⁰ as a base. The research team updated the list of clinics in Canada and the United States and searched the websites of all law schools in Canada and the United States to identify IP law and related business law clinics.

The research team completed an exhaustive internal review of the Innovation Clinic operations. The internal review and external comparison identified the need to interview and survey internal and external informants. Interviews were conducted with former Innovation Clinic student volunteers (clinic fellows) and clients; interviewees were selected using a purposive sampling strategy to ascertain a cross-section of experiences.⁷¹ In total, the team conducted 36 interviews with former clinic fellows (15), former clients (5), and representatives from other IP and business law clinics in Canada (14) and the United States (2).⁷² The interviews used standardized scripts that included open-ended questions to provide

the interviewee an opportunity to comment or provide a more expansive answer to the question.⁷³ Generally, the Innovation Clinic SOPs include an exit survey for former clients or fellows to complete when their file is closed or when they finish their fellowship. For the purposes of this present research, and due to the historically low response rate of the exit surveys, a new survey was conducted from December 18, 2017, to January 31, 2018, in conjunction with the qualitative interviews. All former and current clinic fellows and clients were invited to complete the online research survey. The research survey complemented the research interview questions, seeking quantifiable data about participant experiences.

Report Limitations

A primary limitation of the research project is the difficulty quantifying and analyzing tangible results of SAOs and legal clinic services. It is, of course, possible to collect data to reflect the operations of such services, including the number and types of files, types of work performed and timeliness of services. However, these measures do not adequately capture the complex nature of education, knowledge diffusion and the provision of legal information. As well, the fact that it takes time (often many years) to see results from early-stage ventures makes it difficult to quantify the impact of such work. The research project worked to overcome this limitation by using qualitative and quantitative research in the interview questions, as well as in the internal and external analyses.

In total, the interview response rate was 54.5 percent: 66 potential interviewees were contacted for interviews.⁷⁴ Selected interviewees declined to participate due to a lack of time or human resources necessary to participate or the inability to recall accurately their work with the Innovation

70 Tawfik, "Gap", *supra* note 15.

71 Purposive sampling is used when "particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices." See Maxwell (1997, 87), cited in Charles Teddlie & Fen Yu, "Mixed Methods Sampling: A Typology With Examples" (2007) 1:1 *J Mixed Methods Research* 77, doi:<10.1177/2345678906292430>. The research team identified potential interviewees based on the year they first engaged the Innovation Clinic, the number of years they remained and the types of matters they performed or were assisted with.

72 The clinic coordinator participated in all of the interviews to ensure consistency.

73 The interviewees were guaranteed confidentiality in order to encourage candid responses. For this reason, the report does not directly identify research participants or their respective institutions. Transcribed passages for each interview are anonymized and on file with the author.

74 The research team contacted former clinic fellows (27), former clients (15), and representatives from other IP and business law clinics in Canada (17) and the United States (8).

Clinic many years later. The unavailability or non-responsiveness of intended participants affected the interview and survey results. In particular, the survey response rate was less than one percent: four former fellows responded along with 12 former clients and seven representatives from other IP and business law clinics in Canada and the United States.⁷⁵ The research team sent at least three emails to all identified participants, however, some individuals or organizations either declined to participate or did not respond. The research team relied on publicly available data and the interview data to mitigate the impact of non-responsive research invitees.

The Innovation Clinic Impact and Success Framework

This report has found the desire for further collaboration between existing IP legal clinics and the expansion of the number of IP legal clinics across Canada. To support the development of new IP legal clinics and promote standardization and best practices, the following table summarizes several general strategies to evaluate the impact and success of the Innovation Clinic. These strategies focus on three main areas: the clinic’s performance, the impact of the clinic on client success and the impact of the clinic on the broader innovation community.

Clinic Performance	Productivity	Quantitative assessments of the clinic’s overall productivity and performance (for example, the number of clients moving through the clinic, the number of clients accepted or rejected, community demand for clinic services and so forth).
	Workflow	Quantitative assessments derived from tracking key dates and milestones in file progression (for example, first contact, fellow assigned, supervising lawyer assigned, intake meeting and work plan approval). These metrics help assess the efficacy of the clinic’s internal processes (i.e., how quickly files progress, where files are slowing down, whether deadlines are met and so forth).
	Client Cost-savings	Quantitative assessments of the time spent on each file and work product (for example, the duration of meetings with the supervising lawyer[s] and the time the fellow and/or supervising lawyer[s] spent developing the work product). These data could be used to determine the cost-savings for each client. For example, the clinic could generate a “bill” that estimates how much each client has saved by using the clinic’s services.
	Client Experience	Questionnaires or surveys designed to evaluate client experience at the time of file closing (for example, collecting opinions on the quality of services provided by the clinic, client satisfaction and so forth) and thereafter (i.e., the value of the clinic’s services in subsequent years).
	Fellow Experience	Questionnaires or surveys designed to evaluate clinic fellow experience when the fellow completes their tenure at the clinic (for example, the quality of the practical experience, interest in IP law and so forth) and after the fellow has graduated (for example, the impact of clinic experience on legal career decisions and so forth).
	Supervising Lawyer Experience	Questionnaires at regular intervals regarding the supervising lawyers’ experience working with the clinic and the clinic fellows and to identify shortcomings and develop strategies to improve upon existing practices.

⁷⁵ The research team sent survey invites to former clinic fellows (71), former clients (145), and representatives from other IP and business law clinics in Canada and the United States (74).

<p>Client Success</p>	<p>Longitudinal Assessment of Clients</p>	<p>Conduct a longitudinal study with repeated measures and observations to evaluate the clinic’s impact on client success. The following is an overview of a possible study design and the metrics that could be collected:</p> <ul style="list-style-type: none"> • preliminary assessment of the client (for example, start-up/small business/sole inventor, age of business owners/inventors, number of employees, years in business, annual revenues, investors/seed funding and other relevant metrics to assess growth/success); • secondary assessment of the same metrics following the completion of the work assessment (i.e., exit assessment); and • tertiary assessment of the same metrics in the years following the completion of the work product and file closing.
<p>Clinic Fellow Success</p>	<p>Longitudinal Assessment of Fellows</p>	<p>Ongoing evaluation of clinic fellows’ success post-graduation and throughout their careers may provide insight into how their time with the clinic impacted their career choices. Such data collection could be achieved through questionnaires and/or interviews.</p>
<p>Community Impact</p>	<p>Community Consultation</p>	<p>Questionnaires or surveys regarding the notoriety of the clinic and its overall impact (for example, community awareness of the clinic and its services, reputation, brand strength, willingness of community members to refer friends or colleagues to the clinic for legal services and so forth).</p>

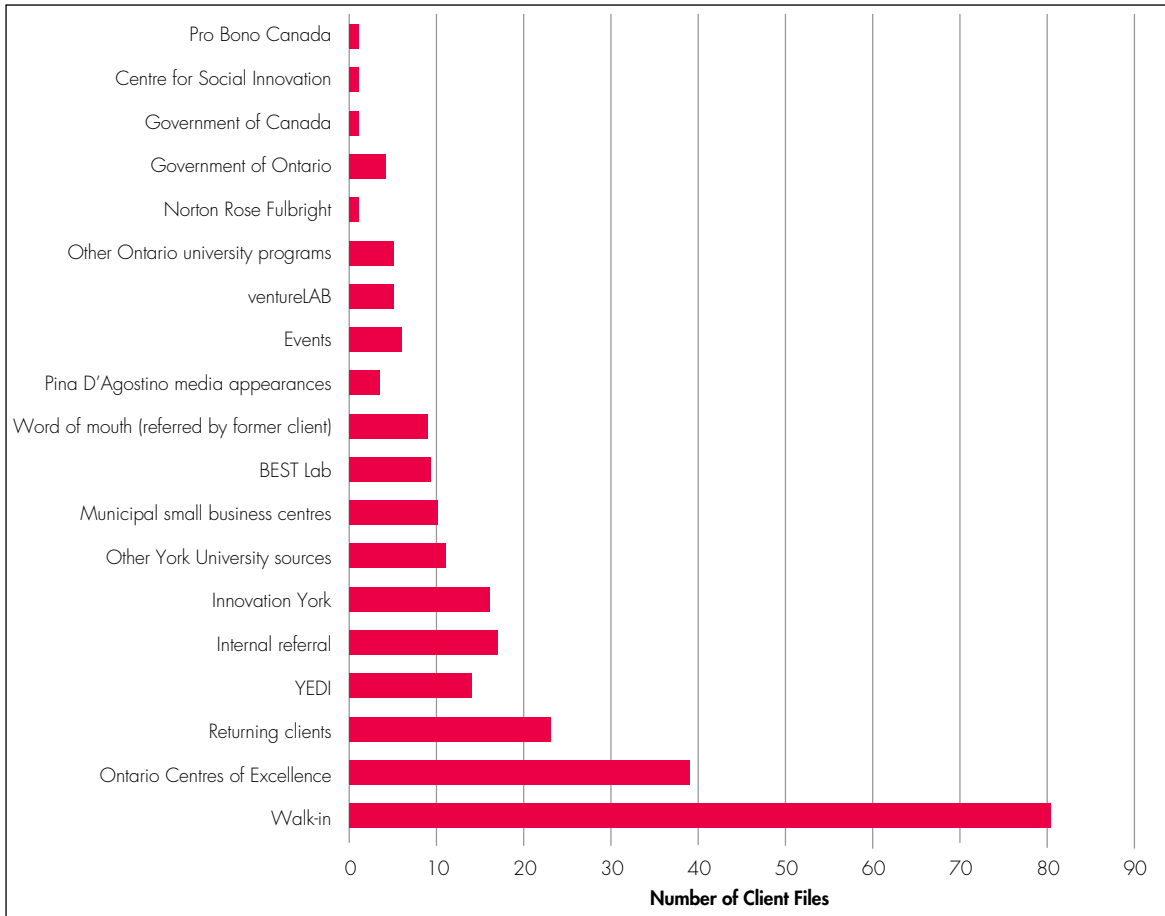
Source: Author.

Appendix 2: Client Workflow Procedures

Milestone	Parties Involved	Key Procedures
New Client ↓	Clinic Supervisor Clinic Coordinator	<ul style="list-style-type: none"> Initial Contact with Client Preliminary Conflict Check and Screening
Fellow Assigned ↓	Clinic Supervisor Clinic Coordinator	<ul style="list-style-type: none"> Match Appropriate Fellow Assign Fellow
Client Intake ↓	Student Fellow Supervising Lawyer Clinic Coordinator	<ul style="list-style-type: none"> Connect with Client and Lawyer Supervising Lawyer Conflict Check Schedule Intake Meeting Conduct Intake Meeting
Client Approval ↓	Student Fellow Supervising Lawyer Clinic Coordinator	<ul style="list-style-type: none"> Client Approval Internal Conflict Check Engagement Agreement and Invoice
Work Product ↓	Student Fellow Supervising Lawyer Clinic Coordinator	<ul style="list-style-type: none"> Create a Work Plan Follow the Work Plan Supervising Lawyer's Review Submit the Final Product
File Closed	Student Fellow Clinic Coordinator Clinic Supervisor	<ul style="list-style-type: none"> Work Completed Closing Memo Client Exit Survey

Source: Author.

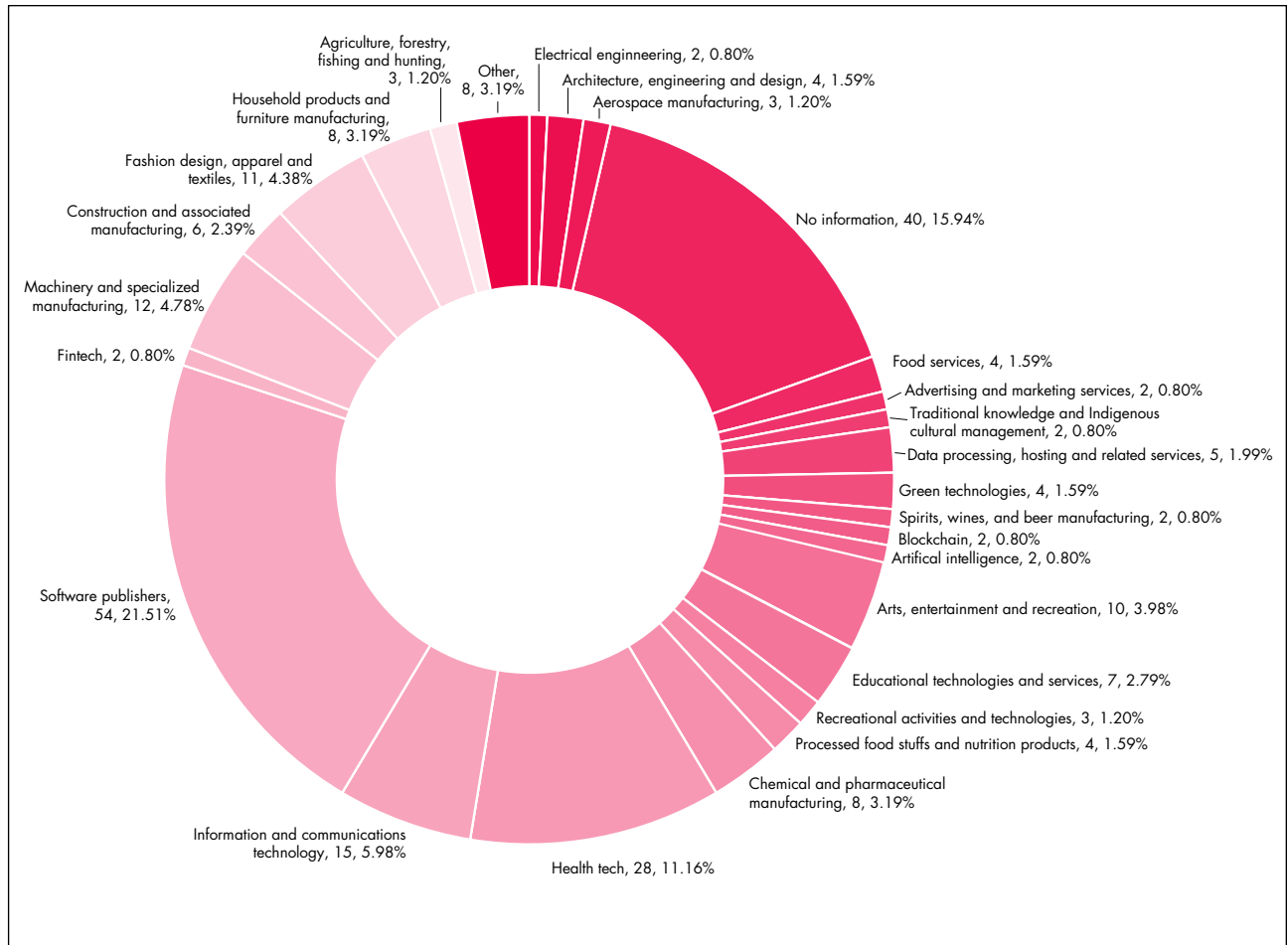
Appendix 3: Innovation Clinic Client Files, by Referral Source



Source: Author.

Notes: Events include 2017 (Ontario) Accessibility Innovation Showcase (3), IP Hackathon (1), OCE Discovery 2018 (1) and Richmond Hill Information Session (1); Government of Ontario includes Ministry of Economic Development and Growth (1) and Ministry of Research and Innovation (1); Government of Canada consists of Concierge Program (1); municipal small business centres include Richmond Hill Small Business Enterprise Centre (5), Haltech (Halton's Regional Innovation Centre) (1), Brampton Entrepreneur Centre (2) and City of Vaughan (1); other York University sources include Osgoode Business Clinic (4), Schulich School of Business (4), C-Lab by BlockchainHub - Lassonde School of Engineering (1) and Lassonde - Earth and Space Science and Engineering (1); and other Ontario university programs include OCAD Imagination Catalyst (9) and Ryerson Digital Media Zone (1).

Appendix 4: Innovation Clinic Client Files, by Industry



Source: Industry classification adapted from the North American Industry Classification System 2017 codes; see Statistics Canada, “Introduction to the North American Industry Classification System (NAICS) Canada 2017 Version 3.0”, online: <www.statcan.gc.ca/eng/subjects/standard/naics/2017/v3/introduction>; Creig Lamb & Matthew Seddon, The State of Canada’s Tech Sector, 2016 (Toronto: Brookfield Institute for Innovation and Entrepreneurship, 2016), online: <<https://brookfieldinstitute.ca/report/the-state-of-canadas-tech-sector-2016/>>.

About CIGI

We are the Centre for International Governance Innovation: an independent, non-partisan think tank with an objective and uniquely global perspective. Our research, opinions and public voice make a difference in today's world by bringing clarity and innovative thinking to global policy making. By working across disciplines and in partnership with the best peers and experts, we are the benchmark for influential research and trusted analysis.

Our research programs focus on governance of the global economy, global security and politics, and international law in collaboration with a range of strategic partners and support from the Government of Canada, the Government of Ontario, as well as founder Jim Balsillie.

À propos du CIGI

Au Centre pour l'innovation dans la gouvernance internationale (CIGI), nous formons un groupe de réflexion indépendant et non partisan qui formule des points de vue objectifs dont la portée est notamment mondiale. Nos recherches, nos avis et l'opinion publique ont des effets réels sur le monde d'aujourd'hui en apportant autant de la clarté qu'une réflexion novatrice dans l'élaboration des politiques à l'échelle internationale. En raison des travaux accomplis en collaboration et en partenariat avec des pairs et des spécialistes interdisciplinaires des plus compétents, nous sommes devenus une référence grâce à l'influence de nos recherches et à la fiabilité de nos analyses.

Nos programmes de recherche ont trait à la gouvernance dans les domaines suivants : l'économie mondiale, la sécurité et les politiques mondiales, et le droit international, et nous les exécutons avec la collaboration de nombreux partenaires stratégiques et le soutien des gouvernements du Canada et de l'Ontario ainsi que du fondateur du CIGI, Jim Balsillie.

