

COMPARING TRANSNATIONAL IPR POLICY

CLOSING THE GAPS IN CANADA'S PATENTING REGIME

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Key Points

- Canada is lagging behind in research and development (R&D) commercialization, ranking fifteenth in the World Economic Forum's *Global Competitiveness Report 2014-2015*.
- There is a gap between R&D investment and global competitiveness, and one of the most important contributing factors to this gap is the fact that new entrepreneurs lack the monetary and informational resources to access intellectual property (IP) legal expertise.
- The strategies employed by the Canadian government to address this gap have not been effective. The policy initiatives currently implemented by the government have failed to consider the importance of disseminating IP legal knowledge directly to innovators.
- In order for Canada to improve its standing, the government should look to the models used by the United States and South Korea to mobilize IP legal knowledge within the entrepreneurial community. This can be achieved by instituting IP training in university-level curricula or offering complimentary services in IP law clinics.

Introduction

IP rights (IPR) stand at the forefront of global discussions on prosperity and growth. From a governance perspective, the enforcement and strengthening of IPR regimes is a key component of the innovation process. The granting of exclusive rights to produce, sell or export an original work has made IPR an essential instrument and a necessary precaution for any aspiring innovators. The cost of not applying for patenting protections can compromise the potential for entrepreneurs to be globally competitive. IPR regimes have proven to be an invaluable asset in mitigating these outcomes, particularly when employed to assist budding entrepreneurs. However, new innovators can encounter a number of obstacles in the early stages of applying for IP legal protection and this can ultimately threaten their ability to innovate successfully. Addressing these barriers has become a concern for international, national and global governments. Within the Canadian context, contemporary governance on the issue has proven to be ineffective at minimizing the social and commercial costs imposed by the patenting system currently in place. The existing legal system governing patent law must be reconfigured to be more easily accessible and navigable to the majority of Canadians.

Since 2006, the Government of Canada has invested more than \$11 billion in various innovation initiatives (Industry Canada 2014, 1). Despite the financial resources and sophisticated infrastructure available to support its IP commercialization endeavours, Canada fails to compete with global R&D giants such as Switzerland and South Korea. According to the *Global Competitiveness Report* released by the World Economic Forum, Canada has



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shown a steady decline in rankings for global competitiveness in innovation, placing fifteenth in 2015 compared to its fourteenth place in 2014 (Schwab 2014, 13). The Canadian government grounds their strategies to advance Canada's position by primarily endorsing talent development within universities and encouraging private-public collaborations for efficient business and manufacturing efforts (Industry Canada 2007, 24). The significance of mobilizing and accessing legal knowledge and expertise is absent in the policies to improve Canada's IP capacity. Entrepreneurial success is contingent upon their appropriate navigation of IP legal systems that protect their ideas through patents, trade secrets, copyrights and trademarks. The lack of access and financial barriers to acquire this legal knowledge poses a fundamental challenge for prospective innovators and entrepreneurs (Hinton and Howe 2015, 2). Canada's global complacency in R&D commercialization can be attributed to the lack of access to legal knowledge. This brief recommends methods of bridging the gap between the commercialization of innovations and the legal know-how of securitizing ideas.

Background

Canada has prided itself on being a pioneer for achievement in R&D. This legacy remains stagnant, however, after losing ranks to other countries with a competitive edge in the realm of IP commercialization. To address this, the Canadian government established the "Mobilizing Science and Technology to Canada's Advantage" strategy in 2007. Some commitments outlined in the initiative include "Increasing the Impact of Federal Business R&D Assistance Programs" and "Enhancing Opportunities for Science and Technology Graduates." The methods of fulfilling these aspirations, however, rely mainly on providing loans, grants, contracts and encouraging collaborations of private and public institutions (Industry Canada 2007, 55). A supplementary strategy instituted in 2014, "Seizing Canada's Moment: Moving Forward In Science, Technology and Innovation," purports the necessity of inspiring and empowering young talent through scholarships, fellowships and grants (Industry Canada 2014, 36-37). In 2014, Canada ranked first among Group of Seven nations in R&D spending in universities and colleges relative to the size of their economy (ibid., 37). It is evident that these strategies have only resulted in the investment of more funds in this field. That Canada is not improving in its global ranking for R&D suggests that the problem area has not been addressed.

In both strategies employed, there is a conspicuous absence of initiatives to harness IP knowledge mobilization and provide IP education to help innovators navigate the legal boundaries of commercialization. Although there is a myriad of online resources supplemented by Canadian Intellectual Property Office (CIPO) and Industry Canada that provide tutorials on how to apply for patents, or offer free consultations directed

by experts, these services lack the contextual and personalized strategies that a legal expert would provide. At an early stage of innovation, it is crucial for the innovator to understand and operate the patenting process (Hinton and Howe 2015, 7). Without proficiency in the legal nuances, self-filing may detrimentally affect the scope of protection of innovation as well as the viability of the business. Compounded with the complexity of self-learning, there are significant costs associated with securing a patent. Simply preparing a patent application, for example, can cost up to CDN\$5,000 to \$20,000 (ibid., 3). Often, the innovator's budget is not conducive to procuring legal aid to structure the optimal IP strategy for their idea.

There is an impediment in the accessibility of legal knowledge and it is in this direction that Canada should implement sustainable policy changes. Other globally competitive nations have identified this need and are investing in altering their legal knowledge mobilization infrastructure to be publicly accessible. Some countries (such as South Korea) have bridged this gap by implementing mandatory IP education in their university-level curricula. Other nations have instituted accreditation programs for law students to give legal advice under supervision within legal clinics. Such clinics tend to be frequented by those without any other available options, highlighting the need for client-specific and often pro bono support services (ibid., 5). In undertaking the challenge of creating a more globally competitive Canada, it is necessary to gain from the insights of other successful nations and incorporate them within the Canadian policy agenda.

Models Considered

Many of the countries that have ranked high on the Competitiveness Index have already identified and implemented unique strategies for use in the field of IP legal knowledge mobilization. While these strategies are often dependent on context (and constrained by the host country's access to the necessary resources), inferring from these approaches can yield important clues for Canadian policy makers. The United States and South Korea are two countries that stand out in their ability to hone in on the legal aspect of IP commercialization. Both countries focus on strengthening IP legal knowledge through micro-level institutions, such as universities. The two countries diverge in the implementation of patenting knowledge mobilization. What these initiatives share in common is their feasibility, cost-effectiveness and accessibility for innovators most in need of assistance. Both models reaffirm the existing gap in IP legal knowledge mobilization and exemplify strategies that Canada can pursue to address this issue.

Case Study: The United States

American IP Law clinics have been active for close to 20 years, and have established a large network across most states.

Housed by US law schools and working in conjunction with the United States Patent and Trademark Office (USPTO), the law clinics have proven to be an effective way of directly servicing innovators who would otherwise be unable to register for IP protection (Hinton and Howe 2015, 10). The USPTO provides law clinic students (under the supervision of a registered attorney) the authority to file patent and trademark applications on behalf of innovators (ibid.). In addition, a variety of other IP-related services such as database patent searches, technical legal language training and information on disclosure and confidentiality processes are also provided, ensuring that most of the concerns innovators have at the early stages of the IP process are met (ibid.). For entrepreneurs unable to put up the capital required to process patent applications, IP law clinics offer a reasonable solution at little to no cost. Without IP law clinics to fill the gap, the alternative for struggling entrepreneurs in the early stages of patenting their product are usually very limited.

Case Study: South Korea

South Korea's innovation strategy has focused on addressing the IP legal knowledge gap at the university level, with governance on the issue largely organized around building IPR knowledge into the existent curriculum (WIPO 2012, 93). As a result, most Korean students in sectors associated with consistent innovation (such as engineering or business) become acquainted with the basics of IPR prior to producing any sort of innovation. The Korean Intellectual Property Office (KIPO) has been the body tasked with the implementation of this strategy and has employed a variety of policy initiatives to that end. Since 2006, KIPO has supported courses on the management of IPR both in graduate and undergraduate programs. The courses are KIPO's method of localizing both the training of competent IP workers, as well as providing general IP information for anyone interested in entrepreneurship (ibid., 97). By targeting and supporting leading universities in the field of IP, KIPO has provided the means for these universities to provide independent IP education on a systemic level for the strata of individuals who require it (WIPO 2012). Most of the universities selected these IPR management programs are restricted to particular fields, though KIPO has also operated a special Masters of IP graduate course at KAIST and Pohang University of Science, providing an interdisciplinary approach based on IP-related subjects like engineering, law, and business management which can be fulfilled in conjunction with of these degrees (WIPO, n.d.).

Recommendations

When surveying the legal education being provided to train IP lawyers and practitioners, it is apparent that there are discrepancies in the opportunities as well as the curriculum available for law students in Canada. Some law schools in Ontario — in particular

the University of Toronto, Osgoode Hall Law School and the University of Ottawa — offer intensive core courses in IP and extend their curriculum to encompass the theoretical, practical and advanced courses that enable students to specialize in certain areas (Sookman 2013). This is not consistent throughout the country, with schools such as Dalhousie University, the University of Victoria and the University of British Columbia limiting their IP education to core or special topics classes. This is apparent again when juxtaposing the curriculum of Queens University and the University of Windsor, both of which offer advanced courses in core areas, to the University of McGill, which only offers a basic IP course (ibid.). There are also a limited number of law programs that offer courses in patent law, commercializing IP or IP law strategies. These are crucial areas of specialization to serve the knowledge-based economies, and warrants an increase in priority to ensure all IP students have access to this training (ibid.).

Some schools have initiated IP legal clinics to train their students through experiential learning while supporting their local innovator community. Schools such as Toronto, Osgoode, Windsor and McGill, among a few others, work with start-up companies and entrepreneurs providing pro bono information and legal services that build the competency of the businesses they assist (Jogal 2015). Windsor's IP Clinic as an example, offers clinic training in collaboration with The USPTO in Detroit, broadening the scope of their law students to gain international experience (ibid.). A robust IP curriculum and opportunities of experiential learning through IP clinics should be implemented by all law schools to produce well-rounded and specialized IP practitioners who can contribute to Canada's R&D goals.

Having investigated and learned from the strategies of other successful countries, the following section will propose methods of enabling the use of law clinics in a sustainable and feasible manner for the purposes of disseminating legal knowledge.

Canada should establish a national IP legal clinic at the university level, including increasing the funding for existing clinics and eventually establishing a virtual clinic as a pilot project. Taking a cue from the US model, an effective strategy for Canada would be to increase the funding available to university-affiliated IP legal clinics. A larger, long-term goal would be the creation of a pilot project virtual clinic, which would carry out the basics of IP legal provisions and some of the more complex IPR procedures, such as the administration of Patent Cooperation Treaty (PCT) applications for foreign innovators who wish to apply for patent protection for their products in Canada (Hinton and Howe 2015, 19). PCT applications are one of the most expensive aspects of the patent application, amounting to approximately CDN\$4,000 in filing fees, and involve a unique

international prosecution stage (ibid.). While this would not be the virtual IP clinics' only function, this service alone would be a valuable asset for cash-strapped entrepreneurs.

Establishing a centralized network of supervised law students — who would be easily accessible and willing to help both national and international innovators navigate the complexities of the Canadian patenting system with additional advice on navigating international patenting channels — would ultimately be a net benefit for the Canadian government. It could easily be as effective in commercializing Canada's maximum IP potential as the funding of regional IP clinics at major universities. It could also be achieved at a more cost-effective rate. An online clinic, by virtue of its global connectivity, also has the added benefit of helping to facilitate worldwide IP commercialization and aid cross-border technology transfers, generating growth and innovation opportunities for Canadians.

Canada should include IPR application courses in select university programs, targeting innovators who will require IP legal advice in the future. Improving the state of Canadian law clinics will certainly help innovators who are cognizant of their own lack of IP knowledge, but a truly effective strategy must also target innovators who are not currently seeking out IP legal advice but will in the future. To that end, South Korea's strategy of introducing IPR through university curricula is an effective method of reaching out to the targeted audiences likely to require those services at some point in their lives. As universities already tend to serve as hubs for innovation (and the focus of much R&D investment), implementing IPR knowledge mobilization at the post-secondary level can easily be justified as a necessary step for universities that wish to maximize on the potential of their students and alumni.

However, the level of success this strategy might have in Canada will likely differ from that in South Korea, owing mostly to the state of each country's individual IP offices. KIPO has been able to build a wider and more extensive IP infrastructure network between universities that is simply not available to its Canadian counterpart, CIPO. KIPO has also demonstrated that it is better able to mobilize its own resources to fund these projects and is better equipped with the level of expertise needed to staff these courses. With these limitations in mind, it is recommended that mandatory IPR application workshops be added as a supplementary part of targeted "high-innovation" fields such as engineering and business. While certainly less intensive than full courses, these workshops would likely be more cost-effective and easily accessible for innovators.

Conclusion

Although the Canadian Intellectual Property Office has recently been seeking to improve their mid-tier status in R&D commercialization through the implementation of a myriad of initiatives, they have still been unable to gain momentum in the field. To enhance Canada's ranking, it is critical to offer comprehensive and consistent support to the entrepreneurs who are shouldering the responsibility of advancing Canada's R&D aspirations. At issue is the lack of available and accessible legal support available during the complex patenting process. New entrepreneurs and start-ups lack the funds needed to acquire the legal knowledge essential to strategizing, protecting and marketing innovations in an aggressive global market. The early phases of commercialization are a highly precarious stage in the innovation process and require the guidance of legal experts. The monetary barrier to accessing these experts compromises the ability of Canadian entrepreneurs to perform competitively in the field. It is vital that the Canadian government utilize the insights provided by international initiatives and implement practices that other countries have pioneered to mitigate the IP knowledge mobilization gap.

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