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July 17, 2017

Denis Martel
Director, Patent Policy
Ministry of Innovation, Science and Economic Development
235 Queen Street
Ottawa, Ontario

Dear Mr. Martel:

Re: Intellectual Property Strategy Consultation

Thank you for your letter dated June 16, 2017, inviting submissions to the government's consultation on a Canadian intellectual property strategy. I am a law professor at the University of Ottawa, where I hold the Canada Research Chair in Internet and E-commerce Law. My areas of speciality include digital policy and intellectual property. This response is submitted in my personal capacity reflecting my own views. I focus on three broad IP strategy issues: awareness, administration, and innovation.

a. Awareness

Your letter includes several questions focused on the awareness of IP, including issues related to education, advice, access, and inclusivity. I should note that the Centre for Law, Technology and Society at the University of Ottawa (of which I am a member) is actively involved in addressing these concerns. Programs include a wide range of intellectual property law courses, moots, and research opportunities. The Centre also offers a technology law internship program that enables law students to work at law firms, government policy departments, and technology companies. These programs are openly available to hundreds of law students each year.

The prospect of expanding the programming to the wider community – including the development of online education programs – would be worth pursuing and of great interest to the Centre. The government could play an important role in opening opportunities to students and by providing financial support for the development of open educational resources that could be used by interested Canadians.

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There is also a need to ensure that IP issues are readily accessible to non-expert Canadians and Canadian businesses. Like many academics, I have worked to make my research and writing openly available and accessible to the public. This has included several books and hundreds of articles and posts on IP that are all openly available under Creative Commons licences. Exploring mechanisms to expand accessible materials should be pursued with academic experts from across Canada and government granting agencies such as the Social Sciences and Humanities Research Council of Canada.

b. Administration

From an IP administration perspective, reform of the Copyright Board of Canada is much needed. There is no shortage of criticism of the Board. Indeed, in an field that is often sharply divided, disenchantment with Board is sometimes the one thing people seem able to agree upon. The Board was slow to acknowledge and implement the copyright decisions delivered by the Supreme Court of Canada, particularly those involving fair dealing. That has changed in recent months, however, and its decisions are now more reflective of the court's jurisprudence. The Board's rulings are and will continue to be challenged, but there is an established system to address appeals. Reform on the substance of decisions is not needed.

Contrast the substantive concerns with the administrative ones, however. How the Board reaches decisions, the costs involved, the timeliness of those decisions, and the ease of participation is very much a matter for review. There is unquestionably a need to develop reasonable timelines for conducting hearings and issuing decisions. Further, the Board needs to actively work to open its proceedings and activities to the broader public. The exclusion of the public stands in sharp contrast to the other boards, tribunals, and agencies that address issues with individual parties but whose decisions have ramifications for a far broader group of stakeholders. Adopting models similar to those used by the Canadian Radio-television and Telecommunications Commission that facilitate funded participation by public interest and civil society groups should be explored.

c. Innovation

While IP awareness and administration issues are important, the Canadian government should also ensure that Canadian IP laws foster innovation and reflect Canadian policies and values. As part of the 2012 copyright reform process, Canada adopted an innovative approach with respect to reform. Many of these reforms – including protection of user-generated content, an Internet exception for education, and statutory damages limits on non-commercial infringement – are models for inclusive, forward-looking policy development. However, that process still left some issues untouched or unresolved that should be addressed through the development on an IP strategy. This section identifies seven issues: knowledge transfer strategies, IP abuse and misuse, fair use/flexible fair dealing, anti-circumvention legislation exceptions, artificial intelligence, crown copyright, and copyright term.

i. Knowledge Transfer Strategies

One of the chief concerns with Canada's IP performance is the transfer of knowledge from the lab to the market with successful commercialization. The notion of "tech transfer" has taken hold in some discussions on how Canada can shift innovative research from Canadian campuses to exciting new commercialization opportunities. However, the real goal is not tech transfer, but knowledge transfer.

Knowledge transfer encompasses a far broader set of policy goals that seek to take the knowledge that emerges from within our labs and classrooms and bring it out to the public – whether for commercialization, better public policies, or a more informed and engaged public. Knowledge transfer certainly includes tech transfer but it also includes research papers, data trials, educational materials, and highly qualified students and personnel. Simply put, if the target is just IP and tech transfer, we miss out of many of the benefits that come from innovative post-secondary research and run the risk of establishing the wrong incentives within our policy frameworks.

Further, the potential emphasis on the U.S. Bayh-Dole approach is misplaced. There is little evidence that the policies governing who owns IP rights have an overriding impact on the success of tech transfer as measured by the volume of patents and licenses.

This should come as little surprise to anyone who has spent time on campuses with academic researchers. The metrics of success in the academic environment – publications, grants, tenure, chairs, successful students – have little correlation with commercialization. Even for those with commercial interests, those are often achieved through consulting arrangements or other mechanisms where the business expertise is left to business people.

The emphasis on university-based patenting is misplaced. It can have a corrosive effect on universities, who forego important, publicly-funded research in favour of potential licensing or patenting opportunities. With properly funded institutions, there is no need to chase licensing dollars. Instead, the cutting edge research ends up in the hands of businesses who can better leverage it for commercialization opportunities. This should not be viewed as lost revenue for universities or their researchers, but rather as a better return on the public's investment in post-secondary research.

If the currency of academics is publishing – not patents – then the challenge is how to ensure that the published research ends up as broadly distributed as possible. While it has captured limited attention outside of educational circles, the Internet has facilitated the emergence of open access publishing of research, transforming the multi-billion dollar academic publishing industry and making millions of articles freely accessible to a global audience. The move toward open access means that global research is far more accessible to everyone – scientists, researchers, businesses, and the general public.

The three federal research granting institutions – CIHR, NSERC, and SSHRC – have adopted open access mandates that requires recepients of federal funding to make their published work available under open access.

This helps foster greater collaboration between researchers and the business community with improved access leading to commercialization opportunities that might otherwise be missed. Further, openly available articles are already being incorporated into teaching materials, thereby replacing conventional textbooks and removing the need for copyright permissions and fees.

As for government strategies, open access mandates should only be the beginning. Moving toward open trial data and open book publishing are the next steps in linking significant public funding to enhancing public access to their investment.

ii. IP abuse and misuse

While some may use the consultation to call for expanded intellectual property rules, the reality is that Canada already meets or exceeds international standards. The more pressing innovation issue is to address the abuse of intellectual property rights that may inhibit companies from innovating or discourage Canadians from taking advantage of the digital market.

The benefits of an anti-IP abuse law could be used to touch on the three main branches on intellectual property: patents, trademarks, and copyright.

Leading technology companies have issued repeated warnings about patent trolling, which refers to instances when companies that had no involvement in the development of a patent seek payments from legitimate companies by relying on dubious patents. Patent trolls have a negative impact on economic growth and innovation with millions spent on unnecessary litigation.

Groups have urged the Canadian government to enact reforms to "limit the ability of non-practicing entities [a euphemism for patent trolls] of exploiting patents to make unreasonable demands of productive companies and prevent crippling damage awards."

There are no shortage of policy possibilities, including a prohibition against legal demands that are intentionally ambiguous or designed to induce a settlement without considering the merits of the claim. Other reforms could include requiring public disclosure of the demand letters, reforming the Competition Act to give the Competition Bureau the power to target anti-competitive activity by patent trolls, and giving courts the power to issue injunctions to stop patent trolls from forum shopping.

Canadian trademark rules would also benefit from anti-abuse provisions. In 2014, the government quietly overhauled the law by removing longstanding "use" requirements for trademark protection. Legal decisions dating back decades emphasized the importance of use in order to properly register a trademark, since trademark law is primarily designed to protect consumers from marketplace confusion. Without use, there is unlikely to be confusion.

The 2014 reforms dropped the strict requirement for use in a trademark, however, creating considerable concern within the legal community. Canada may see a spike in "trademark trolls", who could register unused trademarks with plans to pressure legitimate companies to pay up in order to release the trademarks for actual use. Anti-trademark troll rules would block efforts to register unused trademarks for the purposes of re-selling them to businesses seeking to innovate and use them.

Copyright law would also benefit from anti-troll safeguards. Canada's 2012 digital copyright reforms featured an innovative "notice-and-notice" system designed to balance the interests of copyright holders, the legal obligations of Internet service providers (ISPs), and the privacy rights of Internet users. The law allows copyright owners to send infringement notices to ISPs, who must forward the notifications to their subscribers.

Despite the promise of the notice-and-notice system, it has been misused since it took effect with copyright owners exploiting a loophole in the law by sending settlement demands within the notices. The fix is straight-forward: implement anti-copyright troll regulations that ban the inclusion of settlement demands within the notices and create penalties for those companies that send notices with false or misleading information.

iii. Innovation and IP: Fair Use/Flexible Fair Dealing

Led by the United States, several countries around the world, including Israel, South Korea, and Singapore, have established fair use provisions within their copyright laws. Fair use does not mean free use – rather, it means that there is a balance that allows certain uses of works without permission so long as the use is fair. The Supreme Court of Canada has already ruled that Canada's fair dealing provision must be interpreted in a broad and liberal manner. Yet the law currently includes a limited number of categories (research, private study, criticism, news reporting education, parody, satire, and review) that renders many everyday activities illegal.

The ideal remedy is to make the current list of categories illustrative rather than exhaustive. This can be best achieved by adding the words "such as" to the current provision. This would be a clean, technology-neutral approach, giving Canada the equivalent of a pro-innovative fair use provision but based on the longstanding fair dealing jurisprudence.

iv. Innovation and IP: Anti-Circumvention Legislation Exceptions

Canadian copyright law's anti-circumvention provisions are among the most restrictive in the world and badly undermine the traditional copyright balance in the digital world creating unnecessary restrictions on innovation. Canadians can freely exercise their fair dealing rights in the analog world, but the 2012 reforms went far beyond the WIPO treaty requirements by creating unnecessary restrictions on fair dealing in the digital environment. This creates a "fair dealing gap", where there is a gross mismatch between user rights in the analog world and the digital world. The fair dealing gap should be addressed by establishing a long overdue fair dealing exception for the digital lock rules.

While the Canadian exceptions were narrowly constructed and limited to a handful of circumstances, the U.S. has actually been expanding its digital lock exceptions. It recently introduced exceptions for innovative activities such as automotive security research, repairs, and maintenance, archiving and preserving video games, and for remixing videos from DVDs and Blu-Ray sources.

Canada has the power to introduce new digital lock exceptions, but has yet to do so. During the final stages of the copyright reform process in 2012, the Liberals supported an amendment to expand the digital lock exceptions to cover circumventions for all lawful purposes. As Liberal MP Geoff Regan noted when speaking in support of the change, "what the government seems to want to do is preserve old models and ignore the fact that we have moved into a digital world." Regan cited comments from software developers, librarians and archivists who all warned of the dangers of overly restrictive digital lock rules. The IP strategy should address this restrictive approach with long overdue reforms.

Recent Canadian cases illustrate the potential for copyright to be used to stifle innovation. In March 2017, the Federal Court of Canada ruled on a case involving the sale and distribution of "modchips", which can be used to circumvent digital controls on video game consoles. Nintendo filed a lawsuit against a modchip retailer in 2016, arguing that the distribution of modchips violated the law, even without any evidence of actual copying.

The federal court agreed, pointing to the 2012 anti-circumvention rules that largely mirror legal restrictions on by-passing copy and access controls found in the United States in awarding $12.7 million in damages. The court adopted an aggressive approach in interpreting the digital lock provisions, while also taking a narrow view of exceptions that were designed to safeguard legitimate reasons to circumvent such as interoperability of computer programs. If followed by other courts, the ruling could similarly restrict the applicability of privacy, security research, and access for the blind exceptions found in the law.

v. Innovation and IP – Artificial Intelligence

The federal government placed a big bet in this year's budget on Canada becoming a world leader in artificial intelligence (AI), investing millions of dollars on a national strategy to support research and commercialization. Funding and personnel have been the top policy priorities, yet other barriers to success remain. For example, Canada's restrictive copyright rules may hamper the ability of companies and researchers to test and ultimately bring new AI services to market.

Making machines smart - whether engaging in automated translation, big data analytics, or new search capabilities - is dependent upon the data being fed into the system. Machines learn by scanning, reading, listening or viewing human created works. The better the inputs, the better the output and the reduced likelihood that results may be biased or inaccurate.

Copyright law crops up because restrictive rules may limit the data sets that can used for machine learning purposes, resulting in fewer pictures to scan, videos to watch or text to analyze. Given the absence of a clear rule to permit machine learning in Canadian copyright law (often called a text and data mining exception), our legal framework trails behind other countries that have reduced risks associated with using data sets in AI activities.

For example, consider how machines are taught to translate languages. Last year, the United Nations released 800,000 manually translated documents in the six official UN languages (English, French, Spanish, Arabic, Russian, and Chinese) for machine use. By releasing documents containing perfect translations in multiple languages, the data set helps create better automated translation systems. Indeed, official government documents have been an important data source for automated translation since they offer professionally translated materials of identical content.

Yet the downside of relying on these documents is that treaties and diplomatic correspondence rarely mimic everyday speech. Better systems would benefit from a broader range of materials such as translated popular books or television shows. The goal is not to republish or compete with copyright materials, but rather to ensure that researchers and AI companies can mine the text and data for informational analysis purposes.

Canadian courts have ruled that fair dealing – the copyright law's foundational exception that permits use of materials without the need for prior permission – is a user's right that should be interpreted in a broad and liberal manner. There are several purposes that would permit some text and data mining activities, notably exceptions for research, education, and private study. However, given Canada's emphasis on the commercial benefits of AI, the law may not offer sufficient flexibility to safely move from the lab or classroom to the market.

There are two ways to overcome the copyright AI barrier. First, as noted above, Canada could emulate the U.S. fair use model by making the current list of fair dealing purposes illustrative rather than exhaustive. The U.S. exception is open to any purpose, as striking a fair balance depends upon the use of the work, not the purpose of the copying. Since machine learning does not harm the primary purposes of the original work, most text and data mining will qualify as fair use.

Second, other countries have tried to address the issue by creating a specific exception for text and data mining or computer informational analysis. For example, Britain's exception allows copies of works to be made without permission of the copyright owner for the purposes of automated analytical techniques to analyze text and data for patterns, trends, and other information. The law does not allow contracts to restrict data mining activities, but the exception is limited to non-commercial research.

vi. Innovation and IP: Crown Copyright

Dating back to the 1700s, crown copyright reflects a centuries-old perspective that the government ought to control the public's ability to use official documents. Today crown copyright extends for fifty years from creation and it requires anyone who wants to use or republish a government report, parliamentary hearing, or other work to first seek permission. While permission is often granted, it is not automatic. The Canadian approach stands in sharp contrast to the situation in the U.S. where the federal government does not hold copyright over work created by an officer or employee as part of that person's official duties. Government reports, court cases, and Congressional transcripts can therefore be freely used and published.

The existence of crown copyright affects both the print and audio-visual worlds and is increasingly viewed as a barrier to innovation, including Canadian film making, political advocacy, and educational publishing. The government has established an open licence to address some crown copyright concerns, but a better pro-innovative system would establish a presumption that government materials belong to the public domain to be freely used without prior permission or compensation.

vii. Innovation and IP: Copyright Term

The term of copyright in Canada is presently life of the author plus an additional 50 years, a term consistent with the international standard set by the Berne Convention. From a policy perspective, the decision to maintain the international standard of life plus 50 years is consistent with the evidence that term extension creates harms by leaving Canadians with an additional 20 years of no new works entering the public domain with virtually no gains in terms of new creativity. In other words, in a policy world in which copyright strives to balance creativity and access, term extension restricts access but does not enhance creativity.

The negative effects of term extension has been confirmed by many economists, including in a study commissioned by then-Industry Canada, which have concluded that extending the term simply does not create an additional incentive for new creativity. Moreover, studies in other countries that have extended term have concluded that it ultimately costs consumers as additional royalties are sent out of the country. Increased costs and reduced access hurts Canadian innovation without commensurate economic or cultural gains. The Canadian IP strategy should retain the commitment to meeting but not exceeding the Berne standard of protection of life of the author plus 50 years.

Thank you for the invitation to participate in the government's IP strategy consultation. I look forward to future opportunities to help craft a strategy reflecting Canadian values and priorities.

Yours very truly,

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and E-commerce Law