Canada

WIPO Consultation on Artificial Intelligence and Intellectual Property

Submission from the Government of Canada

February 14, 2020

Canada is pleased to submit the following comments in response to WIPO's call for feedback on a draft issues paper on artificial intelligence (AI) and intellectual property (IP) policy.[1]

Canada believes innovations in AI technologies has the potential to create new sources of economic growth that could make our economies more competitive, inclusive and sustainable, and shape a better future for all. Canada also recognizes the need to address significant social, cultural and economic concerns raised by AI technologies.

Internationally, Canada promotes an approach to AI grounded in human rights, inclusion, diversity, ethics, innovation and economic growth.

- In 2017, Canada was amongst the first countries to release a national AI strategy.[2] One of the objectives of the strategy is to demonstrate global leadership on economic, ethical, policy and legal implications around advancement in AI technologies.[3]

- Canada is also collaborating with other countries to promote discussion around AI technologies. As a G7 country, Canada shares the Charlevoix common vision for the future of artificial intelligence released in June 2018.[4] Also in June 2018, Canada and France proposed the creation of an international study group – the Global Partnership on AI (GPAI) – that would be a global center for understanding and sharing research on AI issues and best practices.[5]

This international vision is supported by the following domestic measures.

- The Government of Canada is increasingly looking to utilize AI to improve public service delivery. It has committed to doing this in a manner compatible with principles such as transparency, accountability and fairness. Given the ethical considerations posed by transformative technologies, the Government of Canada has adopted a number of measures to ensure that AI is deployed in a manner that reduces risks to Canadians and federal institutions, and leads to more efficient, accurate, consistent, and interpretable decisions made pursuant to Canadian law. To guide federal governmental organisations using AI technologies, the Government of Canada released in April 2019 a Directive on Automated Decision-Making.[6] The Directive provides a risk-based approach to ensuring the transparency, accountability, legality and fairness of automated decisions that affect Canadians. It imposes clear requirements for the use of decision-making algorithms and systems within the public service. The Directive is the first of its kind in the world, and will take effect across the Government of Canada in April 2020.

- In May 2019, the Government of Canada created an Advisory Council on Artificial Intelligence to advise the federal government on how best to build on Canada's AI strengths, identify opportunities to create economic growth that benefits all Canadians and ensure that AI advancements reflect Canadian values of human rights, transparency and openness.[7]

- Also in May 2019, the Government of Canada released a Digital Charter.[8] The Charter proposes a principled approach to digital and data transformations, and considers AI among those transformations. For Canada, addressing digital and data transformation means looking at complex policy questions with no simple, one-size-fits-all response developed in isolation, with safeguarding trust and privacy at the core of any policy response.

In sum, Canada approaches public policy issues around AI in a broad context integrating considerations and interplays between various policy areas. Canada approaches IP policy issues around AI in the same integrated way and, consistent with this approach, offers WIPO the following comments divided into the three broad areas discussed in WIPO's draft issues paper.

IP Policy

Canada wishes to engage constructively with WIPO, other Member States and stakeholders to promote the development of an international IP system that is effective, balanced, flexible and evidence-based. Canada agrees with WIPO that we should have conversations to ensure that the global IP system is well-equipped to support the emergence and responsible use of transformative technologies like AI. Canada wishes to be an active participant in those conversations.

Evidence Building

Overall, Canada believes many of the proposed questions in the draft issues paper are formulated in a way that is premature. We believe that rather than seeking to elicit normative recommendations at this stage, it would be more useful for WIPO and its Member States to focus on gathering evidence on the state of play in each Member State. WIPO and its Member States could then build on this evidence base in a subsequent phase to gain insights useful to policy conversations.

To illustrate the merits of this approach, Canada highlights paragraph 6 of the draft issues paper which states that "it would now seem clear that inventions can be autonomously generated by AI", paragraph 12 which states that "AI applications are capable of producing literary and artistic works autonomously", and paragraph 24 which states that "designs […] may be autonomously generated by an AI application". These statements seem to rely on a narrow reading of the notion of "autonomy" in a way that does not allow for an exploration of various degrees of autonomy and human intervention that may be involved in various situations of IP generation by an AI application. Such a narrow reading may prevent us from gaining the necessary insights to have productive policy conversations. We suggest that instead of the questions that are proposed under paragraphs 6, 12 and 24, it would be more useful at this stage to build empirical evidence around the notion of "autonomy". We believe this approach would allow us to have a more accurate understanding of the policy issues.

Canada suggests that a more appropriate set of questions for this stage of the policy conversation could be something like the following: "Do Member States have evidence that inventions/works/designs can be autonomously generated by AI? What criteria have been used to define autonomy in these cases? What level and nature of human intervention was involved?"

Canada suggests that some of the questions could be reformulated or new questions added to lead to more evidence building. For example, paragraph 6 states that "there are several reported cases of applications for patent protection in which the applicant has named an AI application as the inventor". A new question could be added along the following lines: "How many applications for patent protection

has your IPO received in which the applicant has named an AI application as the inventor? Has any patent been granted pursuant to such application? If not, what were the grounds for refusal?"

Canada believes that there are similar opportunities to frame questions in a way that builds evidence under issues 2 to 5 and issues 7 to 11. For example, Canada suggests that instead of asking "Should specific provisions be introduced for inventions assisted by AI?", it could be more useful at this stage of the conversation to ask: "Under your country's current law, what criteria could be applied to inventions assisted by AI?" Canada suggests that other possible questions could include: "What jurisprudential precedents may be applicable in your country to determine relevant prior art and disclosure requirements in an AI context?"; "Does your country grant copyright protection to literary and artistic works that do not have a human creator, or that were co-created by an AI application and a human?"; "Under your country's current law, is it permissible to make reproductions of copyrighted works without the authorisation of the owner in order to extract data subsisting in the works for the purpose of machine learning?"; "What kind of IP-like protection, if any, does your country grant to datasets?"

At this stage in the policy conversation, Canada favours questions that are designed to support fact-finding rather than to identify normative objectives, for example, questions like "Does the law permit…" instead of "Should the law permit…".

Canada recognizes that long established principles of IP laws, such as those defining thresholds of originality and disclosure requirements, provide built-in means for IP systems to adapt to new realities, as they have done with other disruptive technologies in the past. Member States may also be in the process of enacting changes to their IP systems to allow it to better adapt to the emergence of AI technologies. Canada therefore suggests that more generic questions on how the IP systems in Member States are evolving may also help us gain valuable insights and thereby move the conversation forward. For example, questions such as the following could be considered: "Is your country considering any legislative changes to its IP laws to adapt them to the emergence of AI technologies? What are those changes and why are they being contemplated?"

Although Canada is still in the early stages of considering the implications of AI for the Canadian IP system, the Government of Canada is working with leading thinkers, policy makers, academics, and practitioners to discuss the implications of AI for IP policy and law, and make clarifications as required. Adapting our IP system to transformative technologies will require a cross-sectoral and coordinated approach between authorities responsible for legislation, the granting of IP rights, the adjudication of disputes and enforcement, among others. Preserving legitimacy and trust in the IP system will be a key consideration for Canada as it faces these challenges.

Interactions of IP Policy with Other Public Policy Areas

Canada also believes that in researching and consulting on IP policy issues raised by AI, it is important to consider the social, cultural, ethical, labour and developmental issues raised by AI's transformational possibilities. AI is anticipated to have significant positive impacts on peoples' day-to-day lives, but it will also introduce new public policy challenges. Canada believes that due consideration of social, cultural, ethical, labour and developmental issues in our international conversations on IP would go a long way towards helping us develop appropriate IP policy responses to AI, and ultimately justify any approaches adopted globally in the future.

To this end, Canada proposes that additional questions be added to the conversation to help WIPO and Member States consider how IP policy around AI will interact with other public policy areas. For example, the following additional questions could be considered: "How can IP policy contribute to an ethical development of AI worldwide? How can IP policy ensure that the benefits of this new technology are shared broadly? What aspects of IP policy will be key to ensure a proper balance between encouraging investment in AI and the dissemination of, and access to, this technology? How should IP policy account for the fact that AI is expected to be a general purpose technology, a set of foundational innovations on which multiple applications will be built within the next twenty years and beyond?"

Technology Gap and Capacity Building

Canada agrees that gaps in AI capacity between countries and capacity building within WIPO's mandate are important aspects of the conversation. As noted in the section above, the interaction between IP and other policy and legal areas such as human rights, ethics, labour, social and cultural polices will be an important contribution to this aspect of the conversation. Canada will be particularly interested to hear from developing countries and least-developed country Member States on their interests and priorities in the areas of technology gaps and capacity building as the conversation continues. Such IP-related discussions at WIPO could serve to complement relevant initiatives established or under development in other fora, including:

- UNESCO's International Research Centre on AI (IRCAI), which will provide stakeholders across the globe with support, guidelines, and action plans to deal with AI related issues, particularly in the achievement of the Sustainable Development Goals (SDGs);

- The International Development Innovation Alliance's (IDIA) Working Group on AI and Development, which is in its early stages and aims to provide guidelines for AI in development, particularly promoting the advancement of AI ownership, capacity, and agenda-setting by actors at the country level, and facilitating the role of development agencies in the generation of new knowledge and learning to help achieve the former;

- The Global Partnership on Artificial Intelligence (GPAI), as noted above in the introduction to this submission;

- The Organization for Economic Cooperation and Development (OECD) AI Policy Observatory, which will conduct policy monitoring and analysis to help implement OECD AI Principles; and

- Digital Nation's Thematic Group on AI, which develops empirical baselines and shares best practices.

Accountability for IP Administrative Decisions

The use of AI offers a lot of promise in improving the efficiency of service delivery, but it also includes some risks. Whether an automated system is suitable to deliver end-to end services must be analyzed contextually and may depend on the type of decision being made and the amount of discretion required to make the decision. For this reason, Canada is adopting a risk-based approach to ensuring the transparency, accountability, legality and fairness of automated decisions that affect Canadians. As

mentioned above, Canada is committed to ensuring that clear values, ethics, and laws govern the implementation of AI within the public service.

Canada proposes that additional questions be added to the conversation to help WIPO and Member States consider best practices for the use of AI for IP administrative decisions. For example, the following additional questions could be considered: “What best practices have you identified or adopted to monitor and audit algorithmic decision-making to ensure a trustworthy, fair and accountable approach? Have you adopted specific measures to provide for appeal or other recourse options to challenge decisions taken via algorithmic decision-making? Given the importance of public trust in algorithmic decision-making in the public sector, what are some best practices to effectively engage with and educate the public and stakeholders on algorithmic decision-making?”

Canada looks forward to continuing to contribute and engage with WIPO, Member States, and other interested parties on future discussions of these important public policy questions around AI and IP.

---

[1] https://www.wipo.int/pressroom/en/articles/2019/article_0017.html
[2] http://www.unesco.org/new/en/media-services/single-view/news/canada_first_to_adopt_strategy_for_artificial_intelligence/
[3] https://www.investcanada.ca/incentives-programs/pan-canadian-ai-strategy
[4] https://www.international.gc.ca/world-monde/assets/pdfs/international_relations-relations_internationales/g7/2018-06-09-artificial-intelligence-artificielle-en.pdf
[5] https://www.international.gc.ca/world-monde/international_relations-relations_internationales/europe/2018-06-07-france_ai-ia_france.aspx?lang=eng
[6] https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32592
[7] https://www.canada.ca/en/innovation-science-economic-development/news/2019/05/government-of-canada-creates-advisory-council-on-artificial-intelligence.html
[8] https://www.ic.gc.ca/eic/site/062.nsf/eng/h_00109.html