PUBLIC INTEREST ADVOCACY CENTRE
LE CENTRE POUR LA DÉFENSE DE L'INTÉRÊT PUBLIC

285 McLeod Street, Suite 200, Ottawa, ON K2P 1A1

2 September 2021

Innovation, Science and Economic Development Canada
235 Queen St, Ottawa, ON K1A 0H5

and to:

Canadian Heritage
15 Eddy St, Gatineau, QC K1A 0M5

BY EMAIL to: copyright-consultation-droitdauteur@canada.ca

Re: ***A Consultation on a Modern Copyright Framework for Artificial Intelligence and the Internet of Things*** **- Submission of the Public Interest Advocacy Centre**

Dear Consultation Secretariat Staff,

The Public Interest Advocacy Centre (PIAC) is pleased to provide the Government of Canada with our submission on the Modern Copyright Framework for Artificial Intelligence and the Internet of Things Consultation Paper, which is attached.

Sincerely,

John Lawford
Digitally signed by John Lawford
Date: 2021.09.02 14:59:25 -04'00'

John Lawford
Executive Director & General Counsel

Comments on the *Consultation on a Modern Copyright Framework for Artificial Intelligence and the Internet of Things*

Introduction

The Public Interest Advocacy Centre (PIAC) is providing the below comments to the Government of Canada on *A Consultation on a Modern Copyright Framework for Artificial Intelligence and the Internet of Things* (*Consultation*).

PIAC is a non-profit charity organization that provides legal and research services on behalf of consumer interests in the provision of important public services. PIAC has developed a strong record of consumer advocacy since its inception in 1976 and is widely recognized as an important and influential voice for ordinary consumers in a variety of marketplace issues. PIAC seeks to ensure that the public interest is served, and not neglected, by decision makers in government and the private sector when decisions are made about consumer issues.

Given our mandate and expertise, we have tailored our comments to those most relevant to consumer interests. Specifically, we ask the Government of Canada to consider, above all else, the public interest purpose of the *Copyright Act* when developing exceptions to the copyright regime.

A copyright holder under the *Copyright Act* has "the sole right to produce or reproduce the work or any substantial part thereof in any material form whatever [...] and to authorize any such acts."[1] The *Copyright Act* creates these private rights to further the public's interest in the widespread encouragement and distribution of artistic and intellectual works.[2] This is because society has an "interest in maintaining a robust public domain that could help foster future creative innovation [...] as others are able to produce new works by building on the ideas and information contained in the works of others."[3]

Exceptions to the copyright regime are not merely loopholes, but fundamentally shape the scope of the *Copyright Act.* The Supreme Court of Canada has stated that exceptions, such as the fair dealings exception, are properly understood as users' rights, which must be fairly balanced with the rights of copyright holders.[4] Holders' rights and users' rights work together to fulfill the purpose of the *Copyright Act* by ensuring, on one hand, continued investment in creative endeavors, and, on the other hand, innovation through diverse ideas and competition.

Given this background, the Government of Canada should consider placing restrictions on private rights holders, via new exceptions to the copyright regime, with the aim of furthering the public interest purposes of the *Copyright Act*.

Internet of Things

PIAC supports the Government of Canada's initiative to introduce new exceptions to the prohibition against technological protection measures (TPM) circumvention in instances where

[1] *Copyright Act*, RSC 1985, c C-42, s. 3.
[2] *Théberge v. Galerie d'Art du Petit Champlain inc.*, 2002 SCC 34 at paras 30-31.
[3] *CCH Canadian Ltd. v. Law Society of Upper Canada,* 2004 SCC 13 at para 23 [*CCH*].
[4] *Ibid.* at paras 23 and 48.

such circumvention enables repairs and interoperability between systems with software-enabled devices. The current inability to circumvent TPM for legitimate purposes, such as diagnosing, maintaining, and repairing goods and making products interoperable, does not strike the appropriate balance between private rights and user rights. Exceptions are needed to ensure public access to innovative and competitive markets.

Comments on Repair

PIAC believes consumers should have the option to repair their own products or select repair providers of their choosing. The fact that mechanical or electrical parts have been replaced by software in many consumer goods, such as household appliances, medical devices, and vehicles, must not impede this possibility. Currently, consumers cannot legally circumvent TPM and as a result are forced to use manufacturer repair services or manufacturer-endorsed "authorized repair shops" when something goes wrong with their products. This restricted access makes it possible for manufacturers to set inflated prices, extend timelines, disconnect user access when TPM are circumvented, prevent users from accessing their own data, and create other unfavourable conditions, which can harm consumers financially, emotionally, and even physically. If the product needing repair is a tool required for work, such as a vehicle or table saw, then manufacturer-imposed repair restrictions can potentially lead to job insecurity. The inability to get around TPM can also create life or death situations. Under the current regime, people who own software-integrated medical devices, such as insulin pumps and oxygen machines, cannot fix their medical equipment themselves nor have qualified technicians service their devices without authorization from the manufacturer. The inability to seek out quicker or more cost-effective solutions places strain on these consumers and may result in them under-servicing or needlessly replacing incredibly vital medical equipment. The effects of limited repair options have only been exacerbated by the COVID-19 pandemic, which is creating workflow disruptions, supply shortages, and reduced access to in-person services.

PIAC supports the creation of an exception to allow TPM circumvention for the purpose of diagnosing, maintaining, or repairing a product in which a computer program is embedded. The *Consultation* asks for feedback on whether such an exception should be implemented through legislative amendment or the Governor in Council's authority to make regulations. In response, PIAC asks that the government incorporate the exception into the *Copyright Act* itself. Our concern with incorporating the exception through regulation is that only groups with significant financial or political sway will gain the right to repair software-enabled products that are meaningful to them. As we have highlighted above, the issue of repair covers a wide range of software-enabled products. Diagnosis, maintenance, and repair are acts that further the public interest aims of the copyright regime regardless of whether the good being acted upon is a piece of farm equipment, thermostat, medical device, or gaming console. An exception to TPM circumvention for repair is important and as such should be included in the legislation itself, apply neutrally to all TPM, and be amended only through parliamentary review.

Permitting TPM circumvention will provide some relief to those who merely need access to a protected work. However, PIAC also supports the development of a corresponding exception for copyright infringement to allow users to reproduce and disseminate information, such as diagnostic codes and repair manuals, for the purpose of facilitating repair. This exception would better support the development of a repair market. The new exception could be a stand-alone provision, similar to the model used for computer program interoperability, or the existing fair dealing exception could be expanded to include repair. As with research, repair could be a

permitted fair dealing exception in personal, non-profit, and commercial contexts.[5] The fairness of institutional dealings would be assessed with due consideration to whether they actualize individual end users' right to receive repair services "in a fair manner, consistent with the underlying balance between users' rights and creators' rights in the *Act*."[6] Part of this balancing would be ensuring repairers, particularly commercial ones, do not "[hide] behind the shield of the user's allowable purpose in order to engage in a separate purpose that tends to make the dealing unfair."[7] While misuse is possible, hypothetical harm should not prevent the government from taking steps to address the actual harms caused by the current inability to copy for the purpose of repair. PIAC believes that repairs should constitute fair dealing or should otherwise be included as an exception to copyright infringement. Such an exception will support the *Copyright Act's* public interest purposes by diversifying the software-enabled product repair market, which, in turn, will ideally improve consumer access to, and the quality of, software-enabled product repairs.

Comments on Interoperability

PIAC believes consumers should have access to a wider range of interoperable products. We agree with the *Consultation's* statement that interoperability "…fosters competition, promotes overall business competitiveness and supports incremental innovation. Interoperability also gives consumers more ability to make the most use of the products they buy." In order to achieve improved access to compatible goods, competing companies must be able to copy each other's software for the purpose of developing interoperable products. Currently manufacturers use TPM to deny competitors access to this information, preferring instead to make goods that can only be used in conjunction with other products they manufacture. This vertical integration harms consumers by limiting their ability to build onto systems they already have. Under the current regime, consumers are increasingly at risk of having essential services restricted as more and more products become software-enabled. If, for example, smart home manufacturers are not required to provide access to software, as a result of strictly enforced TPM, then only home appliances made by that manufacturer and their partners will be interoperable. Consumers will have fewer options when purchasing smart home utility products such as lightbulbs, water heaters, sound systems, personal assistants, and thermostats, and this limitation may disrupt their access to essential services. Companies should not be able to use TPM's to chain consumers to their products – in a new method of monopoly-making – nor to deny them access to necessary services through pricing barriers that, together with TPM-facilitated monopoly, frustrate competition in consumer products and services.

PIAC supports the clarification and expansion of the exceptions that permit TPM circumvention to better enable interoperability between systems. In his paper, "If a Machine Could Talk, We Would Not Understand It: Canadian Innovation and the Copyright Act's TPM Interoperability Framework," Anthony Rosborough argues, based on the comments of parliamentarians at the time, that the s.41.12 exception was initially drafted "as a release valve to the potential for overprotection given to rightsholders vis-à-vis anti-circumvention provisions […and was] envisioned as leaving a door open to innovators to create novel solutions, including products, on

[5] *Ibid.* at para 51.
[6] *York University v. Canadian Copyright Licensing Agency (Access Copyright)*, 2021 SCC 32 (CanLII) at para 106 [*York University*].
[7] *Ibid.* at para 101, citing *Alberta (Education) v. Canadian Copyright Licensing Agency (Access Copyright)*, 2012 SCC 37 (CanLII), [2012] 2 S.C.R. 345 at paras 22-23.

top of existing technologies regardless of underling TPM."[8] We support this interpretation of legislative intent and ask that the language of the TPM circumvention and copyright infringement exceptions be updated to reflect the current realities of TPM use and places where circumvention is needed. The current exception allows circumvention only for the purpose of making the protected computer program interoperable with another. However, in software-embedded products, it is increasingly difficult to determine where the computer program ends and the hardware begins. We ask that this language be clarified to explicitly allow circumvention for the purpose of accessing blocked non-copyrightable content in a product. We also ask that the scope of the provision be expanded to encompass not only program to program interoperability, but also data exchange and instances where only one computer program is required to achieve interoperability.

Including a definition of interoperability could clarify the scope of the exception. PIAC supports the proposed definition of interoperability as "the ability of a system, software or product to exchange and make use of information and services with other systems." However, PIAC must insist that the exceptions for interoperability do not serve to undermine personal information protections. As noted in the *Consultation,* datasets are works that can receive copyright protection where selection and arrangement of data involves the exercise of skill and judgment. However, datasets can also contain personal information whenever there is a serious possibility that an individual can be identified through the use of that information, alone or in combination with other information.[9] The Government of Canada must make it clear that the collection, use, and disclosure of personal information is to be conducted in accordance with the *Personal Information Protection and Electronic Documents Act* (PIPEDA) and other provincial privacy legislation whenever data access is needed to ensure interoperability. Nothing in the definition of interoperability, proposed above, should enable the collection, use, or disclosure of personal information without the consent of the individuals affected.

Overall, PIAC welcomes the government's proposed exceptions to the copyright regime that will provide consumers with greater access to repair services and interoperable products.

Artificial Intelligence

PIAC agrees that more clarity is need regarding copyright issues related to the implementation of artificial intelligence.

Comments on Authorship

The *Consultation* indicates three possible approaches to AI authorship: 1) attributing authorship to the person who arranged for the work to be generated; 2) attributing authorship only to works generated by humans; or 3) creating a new authorship framework for AI-generated works. PIAC believes the public interest is best served through a robust public domain and, therefore, supports the second approach, which does not attribute authorship to AI-generated works. The second approach is most in line with the copyright regime's aim of protecting the rights of human creators. Legislative and judicial interpretation both support the idea that authorship

[8] Anthony Rosborough, "If a Machine Could Talk, We Would Not Understand It: Canadian Innovation and the Copyright Act's TPM Interoperability Framework," (2021) 19 J L & Tech at 158-159, online <https://ssrn.com/abstract=3848830>.
[9] Canada, Office of the Privacy Commissioner of Canada, "Personal Information", (Interpretation Bulletin, October 2013), online: <https://www.priv.gc.ca/en/privacy-topics/privacy-laws-in-canada/the-personal-information-protection-and-electronic-documents-act-pipeda/pipeda-compliance-help/pipeda-interpretation-bulletins/interpretations_02/>.

should only be applied to a natural person. For example, S.13(3) deems an employer the first owner, but not the author, of some works made in the course of its employees' employment. Such an inclusion suggests that non-natural persons, ie: corporations, cannot be authors. Additionally, the SCC's articulation of the need for skill and judgement as "not […] so trivial that it could be characterized as a purely mechanical exercise" suggests the necessity of human authorship.[10]

PIAC recognizes that there will be both AI-assisted and AI-generated works, but believe it will be too difficult for third parties, and indeed even creators, to parse out which is which. We therefore, disagree with the creation of an authorship framework for AI-generated works that will not apply to AI-assisted works "where a human exercised sufficient skill and judgment in the creation of a work using AI to make that work 'original'." We believe neither AI-generated nor AI-assisted works warrant protection under the copyright regime, as it is often difficult to determine how much, if any, human skill and judgement was used in the creation of the final work. However, if the government is to implement a framework, we suggest *sui generis* rights be created for any work generated or assisted by AI. Under this unified approach, the government could afford investors and creators a fixed and sufficiently long period of financial return, while also ensuring AI-generated and AI-assisted works enter the public domain expeditiously by, for example, protecting these works for a shorter term, perhaps twenty (20) years, running from the date the work is made rather than the end of any related human life or corporate creation date. This model would not include the concept of authorship, meaning the first owner of copyright would need to be determined based on some other criteria.

Comments on Text and Data Mining

We must begin by saying we are concerned that the ***Consultation's*** first listed objective is "support innovation and investment in AI and other digital and emerging technologies in all sectors in Canada" and not an objective more closely aligned with the purposes of the *Copyright Act.* PIAC has strong reservations about the government's widespread promotion of AI development, and the TDM needed to achieve it, without due consideration for the privacy and security risks inherent in the collection and retention of large amounts of data.[11] While these issues are outside the scope of this *Consultation,* we feel it is important to highlight some of our concerns. Individuals are regularly required to consent to the collection, use, and even disclosure of their personal information in order to use an application or service. This consent is often indicated via checkbox and given without a full appreciation for how much or for whom their data is to be collected, used, and disclosed, let alone whether it will be processed using TDM. This lack of individual control over their personal information is fundamentally misaligned with Canada's privacy regime. It also undermines individuals' security. For example, it is widely known that information about a person's whereabouts can reveal highly sensitive information about their identity and patterns, which they may wish to keep private. One study found that location-based datasets are highly unique and are, therefore, very likely to be re-identifiable using information from only a few other sources.[12] In the event of a security breach or inadvertent disclosure, even de-identified information could put individuals at risk of having deeply personal information about them shared against their will. Such a privacy breach can put an individual in harm's way if the information revealed is stigmatized in their community. This

[10] *CCH supra* note 3 at para 25.
[11] For an analysis of the privacy risk associated with TDM and potential mitigation strategies see: Lei Xu, et al., "Information Security in Big Data: Privacy and Data Mining" (2014) 2 *IEEE Access* 1149-1176, online: <https://ieeexplore.ieee.org/document/6919256>.
[12] Yves-Alexandre de Montjoye, et al., "Unique in the crowd: The privacy bounds of human mobility" (2013) 3 Scientific Reports), 1376, online: <http://dx.doi.org/10.1038/srep01376>.

scenario is only one example of how privacy and security concerns can be exacerbated by the unchecked use of TDM. We ask the federal government, in collaboration with the provincial and territorial governments, to take immediate action to ensure that the personal information of individuals is protected and consumers are not exploited as more TDM is deployed.

That said, we do not believe that an exception to allow for TDM would be contrary to the aims of the *Copyright Act*. Indeed, PIAC believes TDM could already be sufficiently captured by the fair dealing exception, particularly where it is conducted for the purpose of research, private study, or education. As a source of user rights, these purposes are to be given a large and liberal interpretation[13] and are not defeated merely because they are carried on in a for-profit or institutional context.[14] While each case needs to be assessed on its merits, it is our understanding that generally copies made and retained during TDM are: 1) converted to machine-readable formats in order to extract data (that is facts and ideas not protected by copyright);[15] and 2) used to create new data sets, which are often not made publicly available and do not compete in the market with the original work.[16] With this background in mind, TDM does not seem to be categorically unfair and, in any case, courts are well-equipped to assess the fairness of a dealing.

Despite our belief that the existing fair dealing exception could be sufficient, PIAC also supports the development of a standalone exception to better clarify the scope of permissible TDM. We ask that this provision, if drafted, be aligned with the fair dealing exception in that it applies agnostically to commercial and non-commercial users conducting TDM for the purpose of research, private study, or education. Drawing a line between commercial and non-commercial users would be arbitrary as research projects are often conducted as public-private collaborations. Excluding commercial players could also negatively impact consumers by restricting innovation that could better tailor products to their needs.

Additionally, PIAC recommends that rights holders be prohibited from charging users a tariff to conduct TDM, as this fee will inevitably be passed onto consumers. Given our belief that TDM will generally constitute fair dealing, we see no justifiable reason why rights holders should be able to charge a fee in addition to that already paid to acquire lawful access to the works.

Finally, we ask that the government be cautious when considering whether to allow rights holders to implement TPM "to ensure the security and integrity of the networks and databases where the works or other subject matter are hosted."[17] The Association of European Research Libraries (LIBER) conducted a survey on content blocking after the adoption of the mandatory exception for research-related TDM in the European Union's Directive on Copyright in the Digital Single Market (DSM). LIBER concluded from the survey that rights holders were misusing TPM to prevent users from lawfully conducting TDM. LIBER summarized: "lock-outs are too frequent, take too long to resolve and — even when a single case is addressed — leave access for universities and their users uncertain."[18] PIAC asks that the government consider this

[13] *CCH supra* note 3 at para 51.
[14] *York University supra* note 6.
[15] *CCH supra* note 3 at para 8.
[16] Element AI Inc., "Promoting Artificial Intelligence in Canada: A Proposal for Copyright Reform", (2018) Our Commons, online:<https://www.ourcommons.ca/Content/Committee/421/INDU/Brief/BR10078507/br-external/ElementAI-e.pdf>.
[17] Language taken from the European Union, Directive on Copyright and Related Rights in the Digital Single Market [EU Directive] (2019) at Art. 3(3), online: <https://eur-lex.europa.eu/eli/dir/2019/790/oj> [DSM].
[18] Association of European Research Libraries, "Europe's TDM Exception for Research: Will It Be Undermined By Technical Blocking From Publishers?" (2020), online: <https://libereurope.eu/article/tdm-technical-protection-measures/>

feedback when deciding whether to allow rights holders to implement TPM. We believe that, if allowed, TPM should be justified only "when there is a risk that the security and integrity of their systems or databases could be jeopardised […] in view of a potentially high number of access requests to, and downloads of, their works or other subject matter."[19] Further, any provision permitting TPM use should provide clear criteria for deciding whether a TPM goes beyond what is necessary to achieve security and integrity protections and should also include a framework and timeline for dealing with TPM-related disputes.

PIAC's concerns about TDM and AI development generally do not relate to the role of these technologies within the copyright regime, but rather their potential to undermine the privacy and security of individuals. We believe that TDM generally constitutes non-infringing activity and that the *Copyright Act* should be amended to reflect this reality, either through the explicit expansion of the fair dealing exception or through the creation of a new exception that applies neutrally to commercial and non-commercial users and does not require them to pay any additional fees.

Conclusion

In conclusion, PIAC supports the government's efforts to expand users' rights through the clarification and development of exceptions in the *Copyright Act.*

Specifically, we support the development of an exception to the prohibition against TPM circumvention to enable the repair of software-embedded devices. We would go even further and ask that the government consider creating a corresponding exception to copyright infringement for the purpose of repair either by expanding the fair dealings exception or creating a standalone provision.

PIAC also supports updating the language in the computer interoperability TPM circumvention exception and its corresponding copyright infringement exception to ensure these provisions are able to meet their objective of safeguarding innovation in the modern TPM landscape.

Finally, while PIAC has reservations about the negative impact AI and TDM have on personal security, these concerns are outside the scope of this *Consultation*. In the context of modernizing the *Copyright Act*, we ask that the government prioritize the public's interest in maintaining a robust public domain by refraining from granting copyright protections to works generated or even assisted by AI. If the government does opt to extend protections to these works, we ask that both generated and assisted works be given the same *sui generis* rights and a shorter term of protection so that the public can access them sooner. Lastly, PIAC believes that TDM is likely already captured by the fair dealing exception and supports the government's desire to clarify the permissibility of TDM, either through the explicit expansion of the fair dealing exception or through the creation of a new exception. We recommend that any steps taken do not result in more expense to the user because any user fees will be passed onto the consumer and create new barriers to access that will undermine the public's interest in the dissemination of new ideas.

In summary, PIAC asks that in amending the *Copyright Act* the government be guided, above all else, by society's interest in fostering future creative innovation by maintaining a robust public domain and ensuring users are able to fully exercise their rights.

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[19] DSM *supra* note 18 at Recital 16.