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State of the Arts: How Should Canadian Copyright Law Treat Works Generated by Artificial Intelligence?

This essay examines Canadian copyright law in the context of works created by Artificial Intelligence (AI). Nothing in the Copyright Act seems to indicate that works generated by AI cannot be original, since the users of AI exercise skill and discretion in selecting appropriate data for the AI to use. Thus, I argue that AI has emerged as an important tool for authors and that the user likely the best candidate for authorship in the work. However, using AI is invariably a complex process involving multiple human contributors. I argue that legislative reform is needed so that the Copyright Act reflects this practical reality. I propose that the law should adopt an approach to AI resembling that of “makers” in cinematographic works, and that this approach would strike the suitable balance between providing economic incentives for innovation and protecting the public’s interest in the dissemination of artistic and intellectual works.

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1 INTRODUCTION

1.1 Artificial Intelligence (AI) and its Creative Applications

Advances in computing science have enabled computer programs and machines to perform increasingly complex tasks. In the colloquial sense, an artificial intelligence (AI) is a machine capable of completing tasks through the use of processes typically associated with human cognition.¹ These processes include the ability to learn from environmental inputs, and to apply them for the purposes of problem solving and task completion.² For instance, autonomous vehicles use a combination of artificial intelligence, sensors and global positioning system (GPS) coordinates to drive themselves without “the active control or monitoring of a human operator”.³ Additionally, modern AI programs have managed to defeat professional human players of complex strategy games, including Go and No-Limit Texas Hold’em Poker.⁴ But strategic problem solving and complex rote tasks are far from being the only applications of artificial intelligence.

Creative industries are in the course of being disrupted by AI which can devise compositional artistic works. For example, an AI program aptly named “Bot Dylan” has written folk music by learning from a database of 23,000 songs.⁵ Furthermore, the Society of Authors, Composers and Publishers of Music (SACEM) has officially endowed another

¹ See Stuart Russell & Peter Norvig, *Artificial Intelligence: A Modern Approach*, 3rd ed (Upper Saddle River: Prentice Hall, 2010) at 1-61 [Russell].

² *Ibid.*

³ Nev Rev Stat § 482A.025 (2011) (this is the definition of “autonomous vehicle” employed by Nevada State legislation).

⁴ David Silver et al, “Mastering the game of Go with deep neural networks and tree search” (2016) 529 Nature 484; Moravcik et al, “DeepStack: Expert-level artificial intelligence in heads- up no-limit poker” (2017) 356 Science 508.

⁵ Richard Gray, “The Future of Music: ‘Bot Dylan’ AI writes its own catchy folk songs after studying 23,000 tunes”, *The Daily Mail (Mail Online)* (26 May 2017), online: <http://www.dailymail.co.uk>.

music composition AI, named AIVA, with “worldwide status of Composer”.⁶ Moreover, works made by AI are not solely confined to the realm of music. They have touched many other disciplines, including but not limited to: linguistics, writing, the visual arts, and even computer coding.⁷

Although many might consider artistic expression a singularly human attribute, AI have proven capable of producing works that, at the very least, mimic the characteristics of human- created works. In 2015, a computing science student revealed through a blog post that he had covertly used an AI program to generate a poem that was selected for publication in *The Archive* - a Duke University literary journal.⁸ Considering such developments, it has become evident that AI generated works could have an enormous potential commercial value. As such, it is imperative for the law to clarify how copyright subsists in those works.

1.2 The Ownership Problem: AI Use Challenges Notions Authorship and Originality

The fact that AI are capable of autonomously generating their own works engenders questions surrounding the ownership of copyright in those works. Competing claims of ownership may come from various entities who have ultimately contributed to creating the

⁶ AIVA Technologies, Press Release, “composing the music of the future”, online: <www.aiva.ai/press_release.pdf>.

⁷ E.g. Rob Verger, “Artificial intelligence now powers all of Facebook’s translation”, *Popular Science* (August 3, 2017), online: <<https://www.popsoci.com/artificial-intelligence-powers-facebook-translation>>; e.g. *The Next Rembrandt*, online <<https://www.nextrembrandt.com>> (The Next Rembrandt is an AI designed to create new paintings in the Dutch painter’s distinctive style); e.g. Fan Long & Martin Rinard, “Automatic Patch Generation by Learning Correct Code” (2016) 51(1) *ACM SIGPLAN Notices* 298 (if you are concerned that self-coding machines may one day lead to a robot uprising, you are not alone. On the other hand, perhaps I have read too many dystopian sci fi novels for my own good).

⁸ Zackary Scholl, “Turing test: passed, using computer-generated poetry”, *Raspberry Pi AI* (blog), online: <<https://rpi.ai.wordpress.com/2015/01/24/turing-test-passed-using-computer-generated-poetry>> (the Turing test is named after computer pioneer Alan Turing and refers to the ability of a machine to behave in a manner that renders it indistinguishable from a human being).

works in question. Firstly, the AI's creator might own the copyright in the AI's code and lay claim to ownership in any works derived from that AI. Secondly, a separate AI user may claim ownership in the copyright on the basis that they have selected the data and parameters around which to apply AI's algorithmic processes.⁹ Finally, the investor or owner of the AI may constitute a third entity with a claim to ownership in the AI's works.

The fact that so many parties may be involved in producing works through AI results in a veritable conundrum regarding the allocation of authorship in those works. In addition, the fact that the works were created through an automated process might call into question the originality of those works and whether they meet the "exercise of skill and judgement" test set out by the Supreme Court of Canada.¹⁰ In the following pages, I will examine the state of Canadian copyright law and propose a means to clarify the how copyright should subsist in works generated by AI.

AI has emerged as an important tool for artists and Canadian copyright law should reflect this development. In many cases, the users of AI – those who select the data sets from which the AI will learn and apply its algorithm – would be the most appropriate authors of a work.

Selecting the appropriate inputs is an exercise of skill and judgement, and is ultimately responsible for the AI's behavioral process. However, given that creating works through AI is likely to be a highly collaborative endeavor involving multiple human actors, assigning ownership in the copyright of those works through authorship may not be a

⁹ As an aside, the collection and use of data in AI learning may give rise to issues concerning the fair use of copyrighted material, but that is not the focus of this essay.

¹⁰ *CCH Canadian Ltd v Law Society of Upper Canada*, 2004 SCC 13 at para 16, [2004] 1 SCR 339 [*CCH Canadian*].

realistic approach. As such, I believe it will be necessary to reform the Copyright Act to ensure that it reflects the commercial and practical realities of Artificial Intelligence. In my view, copyright in works created by AI should subsist in the “maker” who is responsible for making the arrangements necessary to create the work.

2 ORIGINALITY

2.1 Are AI Created Works Original Within the Meaning of the *Copyright Act*?

Originality has been described as the overarching principle of authorship.¹¹ Subject to provisions in the *Copyright Act*, literary, dramatic, and musical works must be original to attract copyright protection.¹² Novelty, inventiveness, or creativity are not required for a work to be considered original. However, a work must be an “original expression of thought of its originator” and must not be merely a copy of another work.¹³

In *CCH Canadian v Law Society of Upper Canada*, the Supreme Court of Canada considered the threshold for originality, and whether creativity should constitute part of the test.¹⁴ They rejected an approach “premised on Lockean theory” that would hold copyright as simply being a reward for an author’s industriousness.¹⁵ On the other hand, they also rejected the “modicum of creativity” approach taken by the Supreme Court of the United States, and ruled that creativity should not be a prerequisite for originality.¹⁶ The Court held that Canadian copyright law should take a middle-of-the-road stance on

¹¹ Jane Ginsburg, “The Concept of Authorship in Comparative Copyright Law” (2003) 52 DePaul L Rev 1063.

¹² *Copyright Act*, RSC 1985, c C-42, s 5.

¹³ E.g. *Klivington Bros Ltd v Golberg* (1957), 8 DLR (2d) 768 at para 4, 28 CPR 13 (Ont HC);

¹⁴ *CCH Canadian*, *supra* note 10.

¹⁵ *Ibid*, at para 15.

¹⁶ *Ibid*, citing *Feist Publications Inc v Rural Telephone Service Co* (1991), 111 S Ct 1282 (US).

originality, and require that a work be an “exercise of skill and judgement” by the author.¹⁷ As such, the Canadian conceptualization of originality encompasses aspects of both the product (in that it cannot be a mere copy), and the process (in that it must be an exercise of skill and judgement by the author).

Interestingly, commentators have noted that the fact pattern in *CCH Canadian* analogizes well with the actions of an “intelligent agent” or AI.¹⁸ In *CCH*, the Court ruled that case summaries and headnotes constitute original works in the sense that author had to “select specific elements of the decision” and arrange them through an exercise of skill and judgement.¹⁹ They even held that a reported judicial decision is original in that it is a compilation in which “the authors have arranged” the headnotes, judicial reasons, case summary, and title “in a specific manner”.²⁰

Similarly, a creative AI might employ its algorithms to learn from a data set and rearrange elements from that data to produce an original work. For example, *The Next Rembrandt* is an AI that reads the distinct characteristics and techniques in the famous Dutch painter’s paintings to produce completely novel works in his style.²¹ Arguably, the highly complex task of emulating the style of an acclaimed artist requires much more “skill and judgement” than simply arranging a case report in a particular order. Given the standard for originality set by the Supreme Court of Canada, it would seem strange to automatically preclude complex works created by AI from being considered original.

¹⁷ *Ibid*, at para 16.

¹⁸ E.g. *Rex Shoyama*, “Intelligent Agents: Authors, Makes, and Owners of Computer-Generated Works in Canadian Copyright Law” (2005) 4 *CJLT* 129.

¹⁹ *CCH Canadian*, *supra* note 10.

²⁰ *Ibid*, at paras 33-34.

²¹ See *Supra* note 7.

Although the Court did state that originality cannot result from a purely “mechanical exercise”, it seems that the phrase does not specifically refer to automated processes.²² The Court employs the example of simply changing fonts in a text as a mechanical exercise that would not meet the skill and judgement test. In context, the phrase “mechanical exercise” appears to refer to a trifling or trivial exercise, rather than to the use of automation in the creative process.

Therefore, it appears nothing prevents works produced by AI from being original works within the meaning of the *Copyright Act*. But, if an AI’s work is indeed an exercise of skill and judgement, it leads us to wonder whose skill and judgement it is.

3 THE AUTHORHIP DILEMA

The author of a work is generally the “first owner the copyright therein”, unless the work is made in the course of employment, or unless there is an agreement to the contrary.²³ Therefore, determining the author of a work created by AI would be an essential first step in ascertaining how copyright subsists in that work. At a glance, this seems a daunting task, because it is easy to envision a scenario in which multiple actors have collaboratively taken part in the process of creating a work through AI. However, collaboration is not a novel issue uniquely applicable to AI. Copyright law has long grappled with the fact that many works constitute a team creation.²⁴ In the context of AI created works, there is no doubt that written agreements regarding ownership of the copyright will be of chief importance. Regardless, when an AI’s automated process is largely responsible

²² *CCH Canadian*, *supra* note 10 at para 16.

²³ *Copyright Act*, *supra* note 12 s 13.

²⁴ Anthony Caser & Andres Sawicki, “Copyright in Teams” (2013) 80 U Chicago L Rev 1683.

for producing an original work, we are left to wonder with whom – if anyone – authorship in that work lies.

3.1 Is Authorship by AI and other Non-Human Entities Possible?

The first potential author to consider is the AI itself. Though it may seem strange to contemplate ascribing authorship to a machine, scholars have recently grappled with certain impacts AI and other autonomous actors may have on the law; such as whether AI can be liable for criminal activity, or whether AI should be entitled to legal rights.²⁵ At a glance, the *Copyright Act* seems to imply that authors must be human in that they must be “...at the date of the making of the work, a citizen or subject of, or a person ordinarily resident in, a treaty country”.²⁶ Since machines cannot hold residency or citizenship, it seems a logical deduction that they would be ineligible authors.

The Supreme Court of Canada has ruled that the *Copyright Act* must be interpreted in accordance with ordinary rules of statutory interpretation.²⁷ Therefore, the Act must be read in its ordinary grammatical sense, having regard to the entire context of the words. In my view, a plain reading of the *Copyright Act* indicates that Parliament only contemplated human beings as capable of authorship. In fact, the Act explicitly lists corporations as valid makers (not authors) of cinematographic work.²⁸ By contrast, the omission of any language referring to authorship by non-natural persons seems telling. At the very least, it signifies a lack of clear parliamentary intent to allow authorship by non-humans.

²⁵ E.g. Gabriel Hallevy, “‘I, Robot – I, Criminal’ – When Science Fiction Becomes Reality: Legal Liability of AI Robots Committing Criminal Offences” (2010) 22 Syracuse Science & Technology Law Report 1; e.g. Jack Balkin, “The Path of Robotics Law” (2015) 6 Cal L Rev 45; e.g. Jennifer Robertson, “Human Rights vs. Robot Rights: Forecasts from Japan” (2014) 46 Critical Asian Studies 571.

²⁶ *Copyright Act*, *supra* note 12, s 5(1)(a).

²⁷ *Public Performance of Musical Works*, Re, 2012 SCC 34 at para 71, [2012] 2 SCR 231.

²⁸ *Copyright Act*, *supra* note 12, s 5(1)(b)(i).

A United States District Court applied similar reasoning in deciding the case of *Naruto v Slater*.²⁹ Photographer David Slater had gone on a trip to Indonesia to photograph crested black macaques. He “became accepted as part of the troop” and gave “the monkey the button to press” after setting up his camera on a tripod.³⁰ People for the Ethical Treatment of Animals (PETA) sued on behalf of Naruto (the monkey who took the photo) and alleged that, by publishing the photograph that the monkey had taken, Slater had violated the monkey’s copyright. Judge Orrick accepted that Naruto had taken the photos by “independent, autonomous action” but dismissed the case, reasoning that the “Copyright Act does not ‘plainly’ extend the concept of authorship or statutory standing to animals”.³¹ Although PETA argued that dismissing the case would be “‘antithetical’ to the ‘tremendous [public] interest in animal art’”, Judge Orrick responded that the argument should be made to Congress instead of before a court.³²

Similarly, the Canadian *Copyright Act* expresses no clear parliamentary intent to allow AI (or other non-humans) to be authors. Given that we have established that AIs are not necessarily precluded from creating original works, we are left with the challenge of finding a nexus for authorship. Since the AI itself cannot be the author of a work, we must examine the possibility of recognizing a human author behind the AI’s process.

3.2 Potential Human Authors of a work generated by AI

The AI’s creator or programmer has developed the algorithm and, in many ways, laid the foundation for works to emerge from the process. One could easily argue that the AI’s

²⁹ *Naruto v Slater* (2016), 2016 WL 362231 (US Dis Ct, ND Cal) [*Naruto*].

³⁰ “Photographer ‘lost £10,000’ in Wikipedia monkey ‘selfie’ row” (2014) *BBC News*, online: <<http://www.bbc.com/news/uk-england-gloucestershire-28674167>>.

³¹ *Naruto*, *supra* note 29 at para 3.

³² *Ibid*, at para 4.

algorithm is ultimately responsible creating works and, therefore, the AI's creator would be the author of those works. No doubt the AI's programmer is the author of the AI's source code. However, I would argue that copyright in the AI code should not necessarily extend to the works that flow from its use. Doing so would constitute an oversimplification of AI processes, and ignores the fact that an AI's user (if separate from the creator) provides the data and stimuli required for the AI to perform its function. In essence, the AI code provides a canvas upon which the user-artist can apply their craft.

Just as human beings do not learn in a vacuum, an AI cannot perform its assigned task without being given a data set to which it can apply its algorithm.³³ In fact, some research has suggested that carefully selecting which data to provide the AI is often more important than selecting the AI algorithm to use.³⁴ The AI's user is instrumental in the resulting final work, as they have selected specific parameters to guide the AI's process. Therefore, the user of an AI (if independent from the AI's creator) may constitute a more appropriate author than the creator.

3.3 AI Viewed as a Tool of the Author

There is no question that the AI's user, in carefully selecting the data and parameters for the creative AI, has laboured to give life to the work. However, we must establish whether this goes beyond mere labour and meets the "skill and judgement" test set out by the Supreme Court of Canada.

³³ See *Russell*, *supra* note 1.

³⁴ E.g. David Yarowski, "Unsupervised word sense disambiguation rivaling supervised methods" (1995) 95 *Association of Computational Linguistics* 189, online: <<http://www.aclweb.org/anthology/P95-1026>>.

In the landmark case of *Burrow-Giles Lithographic Co v Sarony*, the Supreme Court of the United States held that a picture of Oscar Wilde constituted an original work which was subject to copyright.³⁵ Burrow-Giles argued that “a photograph is the mere mechanical reproduction of the physical features or outlines of some object, animate or inanimate, and involves no originality of thought” (emphasis added).³⁶ Although the Court was willing to accept that this might be true for “ordinary” photographs, they ruled that the picture of Oscar Wilde at issue was:

“(Sarony’s)...original mental conception, to which he gave visible form by posing the said Oscar Wilde in front of the camera, selecting and arranging the costume, draperies, and other various accessories in said photograph, arranging the subject so as to present graceful outlines, arranging and disposing the light and shade, suggesting and evoking the desired expression, and from such disposition, arrangement, or representation, made entirely by (him).”³⁷

Thus, at the push of a button – but with a lot of peripheral effort – Sarony had become the author of an original work.

The reasoning employed by Burrow-Giles – which the Court rejected as an oversimplification of the case’s facts – is suspiciously similar to that adopted by some detractors of attributing authorship to AI users. Some have argued that, unlike a photographer, the user of an AI does not have a preconceived notion of the work and, thus, it did not originate in him.³⁸ This contention rests on the premise that an AI user inevitably

³⁵ *Burrow-Giles Lithographic Co v Sarony* (1884), 4 S Ct 279 (US).

³⁶ *Ibid*, at 281.

³⁷ *Ibid*, at 279, 282.

³⁸ E.g. Alan Durham, “The Random Muse: Authorship and Indeterminacy” (2002) 44 William and Mary L Rev 569.

“contributes little or no creative control” due to the “highly unpredictable nature of intelligent agents”.³⁹ In my view, this is highly over simplistic.

These arguments seem to be misconstruing originality as if it were an antecedent requirement for the author to envision the precise outcome of a creative process. Although I accept that it might be disingenuous to draw an exact analogy between photography and using a highly automated AI, it would be absurd to require photographers to precisely envision every image prior to its capture. If we did, any photograph that captured an unpredictable moment, for instance, would be rendered authorless. Additionally, photographers will often take hundreds of shots, constantly adjusting their camera settings and playing with lighting, before producing the final work in fixed medium. Even if a photographer may have had a general idea of what they wanted to capture, the precise outcome may be the result a deliberate trial process. Such a purposeful process is, in and of itself, an exercise of skill and judgement and meets the test for originality.

Coupling this reality with the fact that modern cameras are highly sophisticated – and employ numerous automatic processes – confers cogency to at least some aspects of the analogy between AI use and photography. For instance, the users of “Bot Dylan” exercised skill and judgement by deliberately building a selected database of 23,000 folk songs from which their AI would learn.⁴⁰ Though this may seem like a broad data set, the data was selected through an exercise of skill and judgement, and with a view to crafting a specific type of work. I doubt the users would have expected similar end results if Bot Dylan had instead learned from songs in the Viking death metal genre.

³⁹ Shoyama, *supra* note 18 at 134.

⁴⁰ Gray, *supra* note 5.

3.4 Highly Automated Processes and Technological Neutrality

Although broadly characterizing AI users as mere activators of their machines is misleading, the opponents of attributing authorship to AI users allude to an interesting quandary with regard to highly automated processes. AI use exists on a spectrum, whereby users may heavily guide AI processes, or may have very little input. I have argued that a user's deliberate data selection constitutes an exercise of skill and judgement and meets the originality requirement for authorship. However, what happens when that data is indiscriminately, broadly, or haphazardly selected? For example, a hypothetical image producing AI might learn by scanning the entirety of Google's massive image database and applying a fully randomized selection process to generate new images. In fact, some proponents of recognizing AI users as authors have hedged this proposal by further postulating that highly automated works may indeed belong in the public domain.⁴¹

Technological neutrality was recently affirmed by the Supreme Court of Canada as the "recognition that, absent parliamentary intent to the contrary, the Copyright Act should not be interpreted or applied to favour or discriminate against any particular form of technology" (emphasis added).⁴² Thus, it is necessary to apply the skill and judgement test to AI created works in a manner consistent with other modes of producing copyrightable works. If an AI automatically employs a vague and highly randomized data selection process, it becomes difficult to argue that its user exhibited the requisite skill and judgement to be considered the author of the final product. Following the Supreme Court of Canada's reasoning in *CCH Canadian*, a user who merely presses a button to engage the AI's

⁴¹ Kalin Hristov, "Artificial Intelligence and the Copyright Dilemma" (2017) 57:3 IDEA 431.

⁴² *Canadian Broadcasting Corp v SODRAC 2003 Inc*, 2015 SCC 57 at para 66, [2015] 3 SCR 615.

algorithmic processes would likely have engaged in “purely mechanical exercise”.⁴³ Therefore, such a user should not be recognized as the work’s author. A similar line of reasoning may prevent the AI’s creator from being the author of works derived from highly automated processes.

Furthermore, technological neutrality may have a role to play in recognizing situations where there is joint authorship between the AI’s creator and the AI’s user. There is no doubt that an AI’s creator would be the author of the AI’s code. I have already argued that this should not automatically extend to authorship in the AI’s works, particularly if the AI’s creator provides no input into the data selection process. However, such a clear-cut scenario is practically improbable.

The AI’s creator is likely to be working collaboratively with the AI’s user in designing the AI which will generate the work. In these instances, there may be a case for joint authorship between them, as they have both exercised their skill and judgement toward producing an original work. But this approach is problematic as it would constitute a convoluted exercise when large teams of people are involved in the process of designing and using AI. Therefore, absent legislative reform to the Canadian *Copyright Act*, the law is likely to remain in a confused state regarding the author(s) of AI created works. This dilemma highlights the commercial importance of carefully crafted written agreements to identify the owner of AI created works.

⁴³ *CCH Canadian*, *supra* note 10.

4 OWNERSHIP OF COPYRIGHT IN AI CREATED WORKS

Although authors are generally the first owners of copyright, it is essential not to confuse authorship with ownership. Three primary possibilities have been suggested for copyright ownership in AI created works: 1) the creator of the AI, 2) the AI's users, and 3) the investor/owner of the AI.⁴⁴ As previously discussed, the user appears to be the most likely candidate for authorship – possibly in conjunction with the creator. However, the fact that large teams and organizations are likely involved in the process creating works through AI indicates that authorship may not be the most appropriate means by which copyright in these works should subsist.

4.1 *Copyright Act* Reform: “Makers” Should Own the Copyright in AI Created

The complexity and collaborative nature of creating a cinematographic work compares well with the challenges posed by AI created works. For cinematographic works, the Canadian *Copyright Act* states that copyright subsists in the work's “maker” – which can even be a corporation.⁴⁵ In relation to cinematographic works, the Act defines a maker as “the person by whom the arrangements necessary for the making of the work are undertaken”.⁴⁶ Interestingly, the United Kingdom *Copyright, Design, and Patent Act* deems the “person by whom the arrangements necessary for the creation of the work are undertaken” to be the author of any computer-generated work.⁴⁷ In the Canadian context, it might be more coherent with the remainder of Canada's *Copyright Act* to employ a

⁴⁴ Shoyama, *supra* note 18 at 135, citing Barry Sookman, *Computer, Internet, and Electronic Commerce Law* (Toronto: Carswell 1991).

⁴⁵ *Copyright Act*, *supra* note 12 s 5(1)(b).

⁴⁶ *Ibid*, s 2.

⁴⁷ *Copyright, Design, and Patents Act*, 1988, c 48, s 9(3) (UK).

“maker” approach to copyright in works created by AI, rather than using a deemed authorship stance. This would avoid confusing the concept of authorship with ownership in copyright.⁴⁸

Some have taken the position that AI generated works should belong to the public domain on the basis that doing otherwise would give “undue weight to the economic incentive” of makers and owners”.⁴⁹ Indeed, there is a compelling case that employing a fully Lockean labour-theory approach to copyright law might unduly privilege commodification over communication.⁵⁰ However, allowing makers to have ownership in the copyright of works generated by AI is neither Lockean, nor does it necessarily stifle the communication of works.

Although the role of the public domain has been hotly debated, Professor Carys Craig proposes that “we need a public domain that reflects and protects the dialogic processes of culture” and its proliferation.⁵¹ She notes that, in some ways, the public domain has become a “rallying cry” for those who propose to limit the expansion of IP rights.⁵² I would add that such a rallying cry becomes particularly problematic when it ignores changing social mores and the evolving technological landscape of the digital age.

As discussed above, the principle of technological neutrality has its limits, particularly when the technology in question shatters key assumptions of the copyright scheme – which was largely devised in a pre-digital world. Invoking the public domain to limit the

⁴⁸ *Ginsburg, supra* note 11 at 1070.

⁴⁹ *Shoyama, supra* note 18 at 136.

⁵⁰ See Carys Craig, “Locke, Labour and Limiting the Author's Right: A Warning Against a Lockean Approach to Copyright Law” (2002) 28 *Queen's LJ* 1.

⁵¹ Carys Craig, “The Canadian Public Domain: What, Where, and to What End?” (2010) 7 *CJLT* 221 at 221.

⁵² *Ibid* at 223.

calibration of IP rights in response to technological advancement engages a false dichotomy between protecting the dissemination of ideas and notions of commercial fairness. In fact, copyright's economic incentives "are meant to encourage a participatory and interactive society" (emphasis added).⁵³

The Supreme Court of Canada has expressed a similar view that copyright must seek to strike a "balance between promoting the public interest in the encouragement and dissemination of works of the arts and intellect and obtaining a just reward for the creator".⁵⁴

Having copyright subsist in the maker of an AI created work would strike the appropriate balance. Although it would surely strengthen the economic incentives of using AI for creative applications, in doing so, it would provide a legal framework for the growth of an entirely new creative industry. If one of the objectives of copyright is truly the "encouragement and dissemination of works of the arts and intellect", then it would behoove Canadian law makers to ensure that the *Copyright Act* appropriately reflects creativity in the 21st century.⁵⁵

⁵³ *Ibid* at 238.

⁵⁴ *Galerie d'art du Petit Champlain Inc v Théberge*, 2002 SCC 43 at para 30, [2002] 2 SCR 336 [*Théberge*].

⁵⁵ *Ibid*.