### The Death of the AI Author

## Carys Craig & Ian Kerr

MUCH OF THE recent literature on AI and authorship asks whether an increasing sophistication and independence of generative code should cause us to rethink embedded assumptions about the meaning of authorship. It is often suggested that recognizing the authored — and so copyrightable — nature of AI-generated works may require a less profound doctrinal leap than has historically been assumed. In this essay, we argue that the threshold for authorship does not depend on the evolution or state of the art in AI or robotics. Rather, the very notion of AI-authorship rests on a category mistake: it is an error about the ontology of authorship.

Building on the established critique of the romantic author, we contend that the death of the romantic author also and equally entails the death of the AI author. Claims of AI authorship depend on a romanticized conception of both authorship and AI, and simply do not make sense in terms of the realities of the world in which the problem exists. Those realities should push us past bare doctrinal or utilitarian considerations about what an author must do. Instead. they demand an ontological consideration of what an author must be. Drawing on insights from literary and political theory, we offer an account of authorship that is fundamentally relational: authorship is a dialogic and communicative act that is inherently social, with the cultivation of selfhood and social relations being the entire point of the

LA MAJORITÉ DES publications récentes sur l'intelligence artificielle et la question de l'identité d'un auteur ou d'une auteure vise à déterminer si la sophistication et l'indépendance grandissante du code génératif ne devraient pas nous amener à repenser tout ce qui est devenu une partie intégrale de notre notion de la question du droit d'auteur. Il est souvent proposé que le fait de reconnaitre l'auteur ou l'auteure d'une œuvre rédigée au moyen de l'intelligence artificielle, et donc de reconnaitre la susceptibilité d'être protégé par le droit d'auteur, ne nécessiterait pas un aussi grand saut d'un point de vue doctrinal que nous le pensions historiquement. Dans cet essai, nous soutenons que le seuil de détermination de l'identité de l'auteur ou l'auteure ne dépend pas de l'évolution ou de l'état de la technologie de l'intelligence artificielle et de la robotique. Au contraire, la notion même de l'identification de l'auteur ou de l'auteure d'une ouvre rédigée artificiellement repose sur une erreur de catégorisation : il s'agit d'une erreur ontologique de la notion du droit d'auteur. En nous basant sur la critique établie de l'auteur ou l'auteure romantique, nous soutenons que la mort de l'auteur romantique ou l'auteure romantique entraîne également la mort de l'auteur artificiel. La revendication de la propriété d'une œuvre par un auteur ou auteure repose sur le concept romancé de l'intelligence artificielle et du droit d'auteur, et n'a aucun sens face aux réalités du monde dans lequel le

practice. This discussion reorientates debates about copyright's subsistence in AI-generated works; but it also transcends copyright law, going to the normative core of how law should—and should not—think about robots and AI, and their role in human relations.

problème existe. Ces réalités devraient nous pousser à aller au-delà des simples définitions doctrinales ou utilitaires de ce que fait un auteur ou une auteure. Elles exigent plutôt une considération ontologique de ce qu'est un auteur ou une auteure. En nous appuyant sur les idées de la théorie littéraire et politique, nous proposons une revendication de la propriété d'une œuvre qui est fondamentalement relationnelle: l'identification d'un auteur ou d'une auteure est un acte dialogique et communicatif qui est intrinsèquement social, avec comme point central la préservation de l'individualité et des relations sociales. Cette discussion réoriente les débats sur la survie du droit d'auteur dans les œuvres générées par intelligence artificielle; mais elle transcende également le droit d'auteur, et va au cœur de la question, à savoir si le droit devrait — ou ne devrait pas — penser aux robots et à l'intelligence artificielle, et à leurs rôles dans les relations humaines.

### **CONTENTS**

# The Death of the AI Author

Carys Craig & Ian Kerr

- I. Introduction 35
- II. Romanticism and The Death of the Author 45
- III. Romanticizing AI 57
- IV. De-romanticizing Authorship 72
- V. An Ontology of Authorship 81
- VI. Conclusion: The Death of the AI Author 86

# The Death of the AI Author

Carys Craig & Ian Kerr\*

We should have expected this: we call them a network, we talk about devices locating and connecting to one another..., we give them the language of act and emotion: find, connect. We project ourselves—our idea of ourselves—onto them.

— "Night Shift": An Essay by Orit Gat<sup>1</sup>

#### I. INTRODUCTION

The fantasy of creating artifacts that can themselves create is both old and new. In ancient times, Aristotle envisaged new instruments of production that would, of their own accord, compose and perform music and weave new textiles.<sup>2</sup> Towards the end of the previous millennium, sci-

Carys Craig is an Associate Professor at Osgoode Hall Law School, York University. Ian Kerr was the Canada Research Chair in Ethics, Law and Technology at the University of Ottawa, Faculty of Law. He died on August 27, 2019. This paper is dedicated to Ian's beloved students at the University of Ottawa's Faculty of Law. May his memory be a blessing. Special thanks to Meghan Sali, Robin McLachlen, Liz Gray, and Felice Yeung for their outstanding research assistance, and to the Social Sciences and Humanities Research Council and the Canada Research Chairs program for their generous support. For their insightful feedback and helpful comments, thanks also to Bita Amani, Michael Birnhack, Christopher Buccafusco, Kate Darling, Niva Elkin-Koren, Michael Froomkin, Assaf Jacob, Margot Kaminski, and Felix Wu. This work has benefited from discussions at We Robot (University of Miami), AI Law: Legal Agency In The Age Of Machine Learning (Tel Aviv University), Intellectual Property Scholars Conference (DePaul University), European Policy on Intellectual Property (ETH Zurich), and Critical Perspectives in AI Ethics Conference (University of Edinburgh Futures Institute), as well as workshops at Queen's University, Tel Aviv University, Haifa University, and Cardozo School of Law.

<sup>1</sup> Orit Gat, "Night Shift" (last visited 15 March 2019), online: adam basanta <adambasanta.com/nightshift>.

<sup>2</sup> See Aristotle, *Politics*, translated by Benjamin Jowett (Kitchener, ON: Batoche Books, 1999) ("For if every instrument could accomplish its own work, obeying or anticipating the will of others, like the statues of Daedalus, or the tripods of Hephaestus, which, says the

ence fiction writers imagined machines that would replace the proverbial million monkeys at typewriters—artificial intelligence (AI) that could not only reproduce the complete works of Shakespeare and all the books in the British Museum, but could also author the uncollected works of the future<sup>3</sup>—in one variation, with a view to cornering the market on fiction.<sup>4</sup>

Today's AI often seems stranger than fiction (if not, perhaps, stranger than the fiction that AI has recently generated). By way of example, Sunspring,<sup>5</sup> a 2016 science fiction film written entirely by an AI, tells the tale of three people caught in a love triangle on a space station. The Long Short-Term Memory (LSTM) recurrent neural network that generated the screenplay (subsequently naming itself "Benjamin") was trained on a dataset of dozens of online sci-fi screenplays from the 1980s and 1990s to re-assemble sci-fi type plots and language. Over time, the AI became capable of mimicking the structure of a screenplay, including stage directions and lines of dialogue. Although Sunspring has a surprisingly sound plotline and includes some terrific one-liners ("Well, I have to go to the skull,"6 declares one character, whereupon the actor is directed to shine green lasers into his own eyes), the stage directions were sometimes a little perplexing ("He is standing in the stars and sitting on the floor"7), while the dialogue ranges from stilted and surreal to nonsensical. Still, as Annalee Newitz describes it, "[s]omehow, a slightly garbled series of sentences became a tale of romance and murder, set in a dark future world. It even has its own musical interlude...with a pop song Benjamin composed after learning from a corpus of 30,000 other pop songs."8 Sunspring placed top ten in Sci-Fi London's annual film festival, beating out hundreds of other entries composed by humans.

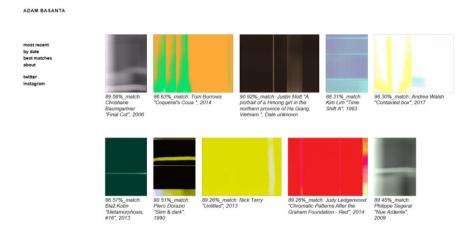
poet, 'of their own accord entered the assembly of the Gods;' if, in like manner, the shuttle would weave and the plectrum touch the lyre without a hand to guide them, chief workmen would not want servants, nor masters slaves" (*circa* 350 BCE) at 7).

- 3 See e.g. Lin Carter, *Beyond the Gates of Dream* (Berkeley Heights, NJ: Wildside Press, 1999) at 115.
- 4 See Roald Dahl, "The Great Automatic Grammatizator" in *The Umbrella Man and Other Stories* (New York: Viking, 1998) 1.
- 5 See Oscar Sharp, "Sunspring" (9 June 2016) at ooh:1m:57s, online (video): YouTube <www.youtube.com/watch?v=LY7x2Ihqjmc&ab\_channel=ArsTechnica>.
- 6 Ibid at ooh:1m:57s.
- 7 Ibid at ooh:4m:48s.
- Annalee Newitz, "Movie Written by Algorithm Turns Out to Be Hilarious and Intense", *Ars Technica* (9 June 2016), online: <arstechnica.com/gaming/2016/06/an-ai-wrote-this-movie-and-its-strangely-moving>.

In addition to word assemblage, today's AIs are generating stunning abstract images that similarly raise fascinating questions about the nature of art and authorship. Consider Canadian artist and experimental composer Adam Basanta's *All We'd Ever Need Is One Another*—"a mixed-media installation which creates images autonomously through self-generating techniques: a continuously running 'art-factory' operating independently of human input." Once produced, its outputs are "validated as art" by a machine-learning algorithm trained to spot patterns that replicate existing images found in a database of contemporary abstract art. Controversially, when one of its randomly generated images bears at least an 83 percent likeness to a known artwork, that image is automatically uploaded to a dedicated website where it is displayed as an art-factory output and titled with an auto-generated cross-reference to the similar—human-made—art.

FIGURE 1: ADAM BASANTA, All we'd ever need is one another, WEBSITE HOMEPAGE, 10 MARCH 2019.

All we'd ever need is one another



As Basanta describes it, "the installation acts as a golem-like assemblage, continuously and mindlessly self-producing without regard for human spectators." Of course, this does not mean that human spectators have no regard for productive processes of the automaton. Amel Chamandy, Montreal artist and owner of Galerie NuEdge, alleged that Basanta's art-factory

<sup>9</sup> Adam Basanta, "All We'd Ever Need Is One Another: About" (2018), online: *All We'd Ever Need Is One Another* <allwedeverneed.com/about.html>.

<sup>10</sup> *Ibid*.

infringed copyright in her photographic work, Your World Without Paper. The claim settled, but not before attracting a slew of media attention and plenty of speculation about how the law might apply to this novel scenario.11 The output was declared by the algorithm to be substantially similar to Chamandy's work, after all, which is the threshold for establishing copyright infringement—but only if the similarity is the result of copying.<sup>12</sup> An infringement claim in respect of the matching machine-generated work would be untenable here because the images were created by two desktop scanners randomly capturing the shifting light on the other's glass surface. It was not the captured images but their identification as a worthy 'artistic' output that depended on the prior existence of a similar, human-made artwork.<sup>13</sup> But that does not resolve the matter of the digital copy of Chamandy's work that must be in the database from which the match was identified, or any transitory digital copies made during the validation process, and whether these constitute infringing reproductions. <sup>14</sup> Nor does it resolve the question of potential copyright liability in future cases where a generative AI produces outputs similar to protected images within its training dataset—cases, that is, where such similarities cannot be dismissed as purely

See e.g. Chris Hannay, "Artist Faces Lawsuit over Computer System that Creates Randomly Generated Images", The Globe and Mail (3 October 2018), online: <a href="https://www.theglobeandmail.com/arts/art-and-architecture/article-artist-faces-lawsuit-over-computer-system-that-creates-randomly/">https://www.theglobeandmail.com/arts/art-and-architecture/article-artist-faces-lawsuit-over-computer-system-that-creates-randomly/</a>; "Can an Artist Sue an AI over Copyright Infringement?", CBC Radio (12 October 2018), online: <a href="https://www.cbc.ca/radio/spark/409-1.4860495/can-an-artist-sue-an-ai-over-copyright-infringement-1.4860762">https://www.cbc.ca/radio/spark/409-1.4860495/can-an-artist-sue-an-ai-over-copyright-infringement-1.4860762</a>.

<sup>12</sup> The copyright doctrine of independent creation means that a work produced independently, without copying, will not infringe copyright in another's pre-existing work even if it is identical. See *Francis Day & Hunter Ltd v Bron*, [1963] Ch 587, 2 WLR 868 (CA), Diplock LJ (explaining that, once you have eliminated the possibility of actual copying, then "coincidence, however improbable, is the truth" at 627). For a discussion of copyright's "independent creation" defence as it relates to AI, see Clark D Asay, "Independent Creation in a World of AI" (2019) Brigham Young University Law Research Paper No 20-04 at 2, 8, online (pdf): SSRN <ssrn.com/abstract=3485066> [forthcoming in 2020 in Fla Intl UL Rev].

<sup>13 &</sup>quot;The images Basanta's scanners produce seem familiar for a reason. They *are* familiar: a combination of algorithms reads the images produced by the scanners and compares them to a trove of recognizable images.... The algorithms register similarities between the scanners' and the artists' impressions of the world" (Gat, *supra* note 1).

<sup>14</sup> These copies were apparently the subject of the claim, which alleged that "the process used by the Defendant to compare his computer generated images to Amel Chamandy's work necessarily required an unauthorized copy of such a work to be made" (Statement of Claim at para 30), quoted by Teresa Scassa, "Artist Sued in Canada for Copyright Infringement for AI-Related Art Project" (4 October 2018) at para 4, online (blog): Teresa Scassa <teresascassa.ca/index.php?option=com\_k2&view=itemlist&task=category&id= 38:copyright-law>.

coincidental.<sup>15</sup> The obscurity of Basanta's algorithmic search-and-match function (with many matches, including Chamandy's 85.81 percent match, not appearing particularly similar to the human eye) should also cause us to question copyright owners' increasing reliance on AI to automatically identify infringing copies in digital environments.<sup>16</sup> But most importantly, as Basanta intended, the art-factory, as well as the litigation it provoked, surely leave us questioning conventional assumptions about what it means to create, to copy, and to designate something "art-worthy."<sup>17</sup>

One way to determine art-worthiness, of course, is to look to the art market. On October 25, 2018, just three weeks after Basanta's art-factory made its media debut, an AI-generated *Portrait of Edmond Belamy* went under the hammer in the Prints & Multiples sale at Christie's Auction House. It sold for an incredible \$432,500—nearly 30 times the average annual income of a United Kingdom artist<sup>18</sup>—signalling, according to

<sup>15</sup> For a more detailed discussion about the potential application of Canadian copyright doctrine to the inputs and outputs of AI-generated works, see Carys J Craig, "Copyright and Artificial Intelligence" in Florian Martin-Bariteau & Teresa Scassa, eds, *AI and the Law in Canada* (Toronto: LexisNexis Canada) [Craig, "Copyright and AI"] [forthcoming in 2021]. See also Enrico Bonadio & Luke McDonagh, "Artificial Intelligence as Producer and Consumer of Copyright Works: Evaluating the Consequences of Algorithmic Creativity" [2020] 2 Intellectual Property Q 112 at 114.

<sup>16</sup> Systems such as YouTube Content ID rely on algorithmic matching to identify unauthorized uses of copyright content on the platform but are prone to error. See Jennifer M Urban, Joe Karaganis & Brianna L Schofield, "Notice and Takedown in Everyday Practice" (2017) UC Berkeley Public Law Paper No 2755628 at 8, 97, online (pdf): SSRN <ssrn.com/abstract=2755628>; Henning Grosse Ruse-Khan, "Automated Copyright Enforcement Online: From Blocking to Monetization of User-Generated Content" (2020) University of Cambridge Faculty of Law Research Paper No 8/2020, online (pdf): SSRN <ssrn.com/abstract=3565071>. See also Carys J Craig & Bob Tarantino, "An Hundred Stories in Ten Days': COVID-19 Lessons For Culture, Learning and Copyright Law" (2021) 57:3 Osgoode Hall LJ 567 at 577–80. For an interesting discussion about what algorithmic author-identification technology can tell us about authorship, see Sarah Allison, "Authorship After AI", Public Books (25 June 2019), online: <www.publicbooks.org/authorship-after-ai/>.

<sup>17</sup> Basanta has stated that if the scan is "similar enough to a work that the art market or international collections has deemed art-worthy, then that image, which is similar to it, is also art-worthy. It becomes art." See Hannay, *supra* note 11 at 1. For an excellent discussion about the significance of Basanta's project for interrogating anthropocentric conceptions of authorship and agency, see also Martin Zeilinger, *Portrait of the Artist Without Agency: Digital Art Between Artificial Intelligence & Intellectual Property* (Meson Press) [forthcoming in 2021].

<sup>18</sup> See The Design and Artists Copyrights Society, "Artist Salary Research", online: DACS <a href="https://www.dacs.org.uk/latest-news/artist-salary-research?category=For+Artists&title=N">www.dacs.org.uk/latest-news/artist-salary-research?category=For+Artists&title=N>.

Christie's, "the arrival of AI art on the world auction stage." Unlike Basanta's installation, the Generative Adversarial Network (GAN) that produced the piece sold at Christie's was meant to produce commercial portraits by learning and copying various styles derived from its training set of more than "15,000 portraits painted between the 14th century to the 20th." After a few months of training, the GAN now pumps out "original" portraits (*i.e.* intricate re-assemblages that increasingly resemble in style the public domain paintings in its database) every three days—not a bad business model for three Parisian artist-entrepreneurs who borrowed 90 percent of their AI code from a 19-year-old kid.<sup>21</sup>

As it turns out, science fiction writers are not the only ones to have seen all of this coming. Lawyers and policy makers in the field of intellectual property have been contemplating the legalities of computer-generated works for almost as long as contemporary science fiction authors have been writing about them.<sup>22</sup> It started in the mid-1960s, when the United States (US) Register of Copyrights first confronted a work created with the aid of computers. This ultimately prompted the National Commission on New Technological Uses of Copyrighted Works,<sup>23</sup> the US Congress, the Office of Technological Assessment,<sup>24</sup> and a string of interested scholars<sup>25</sup> to consider the allocation of ownership rights in computer-generated works.

Recent advances in the field of machine learning have provoked a resurgence of interest in the subject amongst intellectual property policy

<sup>&</sup>quot;Is Artificial Intelligence Set to Become Art's Next Medium?" (12 December 2018), online: *Christie's* <a href="https://www.christies.com/features/A-collaboration-between-two-artists-one-human-one-a-machine-9332-1.aspx">https://www.christies.com/features/A-collaboration-between-two-artists-one-human-one-a-machine-9332-1.aspx</a>.

<sup>20</sup> Ibid.

<sup>21</sup> See James Vincent, "How Three French Students Used Borrowed Code to Put the First AI Portrait in Christie's" (23 October 2018), online: *The Verge* <www.theverge.com/2018/10/23/18013190/ai-art-portrait-auction-christies-belamy-obvious-robbie-barrat-gans>.

<sup>22</sup> See US, Copyright Office, Sixty-Eighth Annual Report of the Register of Copyrights for the Fiscal Year Ending June 30, 1965 (Washington, DC: 1966) at 5.

<sup>23</sup> US, National Commission on New Technological Uses of Copyrighted Works, *Final Report* (Washington, DC: 1979).

<sup>24</sup> US, Congress, Office of Technology Assessment, *Intellectual Property Rights in an Age of Electronics and Information*, OTA-CIT-302 (Washington, DC: US Government Printing Office, April 1986) at 69–73.

<sup>25</sup> See e.g. Karl F Milde Jr, "Can a Computer Be an 'Author' or an 'Inventor'?" (1969) 51:6 J Pat & Trademark Off Soc'y 378; Timothy L Butler, "Can a Computer Be an Author? Copyright Aspects of Artificial Intelligence" (1982) 4:4 Hastings Comm & Ent LJ 707; Pamela Samuelson, "Allocating Ownership Rights in Computer-Generated Works" (1986) 47:4 U Pitt L Rev 1185.

makers<sup>26</sup> and a second generation of scholars,<sup>27</sup> all confronting the question of how to treat seemingly original works of expression that are not the product of "authorship" in the traditional sense—that is, works that bear the external hallmarks of creativity but that have no readily discernable human author. There is no doubt that AI-generated works have become increasingly indistinguishable on their face from their human-authored counterparts, and that this inevitably provokes some challenging legal questions about thresholds for protection, and the doctrinal and evidentiary requirements of authorship, ownership, and infringement under the traditional copyright system. Still, as James Grimmelmann recently

<sup>26</sup> In Canada, the recent Copyright Act Review produced policy recommendations in recognition of evolving AI technologies. The Standing Committee on Industry, Science and Technology (INDU) observed that copyright legislation could be "adapted to distinguish works made by humans with the help of AI-software from works created by AI without human intervention" (at 51) and recommended amending the Copyright Act, RSC 1985, c C-42, "to provide clarity around the ownership of a computer-generated work" (at 51, Recommendation 14). It further recommended a legislative amendment "to facilitate the use of a work or other subject-matter for the purpose of informational analysis" (i.e. text and data mining for training AI) (at 87, Recommendation 23): House of Commons, Statutory Review of the Copyright Act: Report of the Standing Committee on Industry, Science and Technology (June 2019) (Chair: Dan Ruimy), online (pdf): Parliament of Canada <www. ourcommons.ca/Content/Committee/421/INDU/Reports/RP10537003/indurp16/indurp16-e. pdf>. In the international arena, the World Intellectual Property Organization (WIPO) is currently conducting consultations on the intersection of AI & intellectual property policy, including the issue of authorship and ownership of AI-generated works: see WIPO, Secretariat, Revised Issues Paper on Intellectual Property Policy and Artificial Intelligence, WIPO Conversation on Intellectual Property (IP) and Artificial Intelligence (AI), 2nd Sess (21 May 2020) at 7-8 (Issue 7), online (pdf): WIPO < www.wipo.int/edocs/mdocs/mdocs/en/ wipo\_ip\_ai\_2\_ge\_20/wipo\_ip\_ai\_2\_ge\_20\_1\_rev.pdf>.

<sup>27</sup> See e.g. Annemarie Bridy, "Coding Creativity: Copyright and the Artificially Intelligent Author" [2012] Stan Tech L Rev 5 [Bridy, "Coding Creativity"]; Annemarie Bridy, "The Evolution of Authorship: Work Made by Code" (2016) 39:3 Colum J L & Arts 395 [Bridy, "Evolution"]; James Grimmelmann, "There's No Such Thing as a Computer-Authored Work—And It's a Good Thing, Too" (2016) 39:3 Colum J L & Arts 403; Robert C Denicola, "Ex Machina: Copyright Protection for Computer-Generated Works" (2016) 69:1 Rutgers L Rev 251; Bruce E Boyden, "Emergent Works" (2016) 39:3 Colum J L & Arts 377; Margot E Kaminski, "Authorship, Disrupted: AI Authors in Copyright and First Amendment Law" (2017) 51:2 UC Davis L Rev 589; Andres Guadamuz, "Do Androids Dream of Electric Copyright? Comparative Analysis of Originality in Artificial Intelligence Generated Works" [2017] 2 Intellectual Property Q 169; Shlomit Yanisky-Ravid & Luis Antonio Velez-Hernandez, "Copyrightability of Artworks Produced by Creative Robots and Originality: The Formality-Objective Model" (2018) 19:1 Minn J L Sci & Tech 1; Jean-Marc Deltorn & Franck Macrez, "Authorship in the Age of Machine Learning and Artificial Intelligence" (2018) Center for Intellectual Property Studies Paper No 2018-10; Jane C Ginsburg & Luke Ali Budiardjo, "Authors and Machines" (2019) 34:2 BTLJ 343; Daniel J Gervais, "The Machine as Author" (2020) 105:5 Iowa L Rev 2053.

observed, "[t]he scholarship pondering the possibility of computer-authored works is surprisingly extensive, even though no one has ever exhibited even one work that could plausibly claim to have a computer for an 'author' in the sense that the Copyright Act uses the term."<sup>28</sup> As Grimmelmann further notes, however, most of these scholars "sensibly conclude that computers are not authors, for now at least...."<sup>29</sup>

Representative of this view is Annemarie Bridy, whose words succinctly capture our current predicament: "As the state of the art continues to advance in AI and related areas...we are moving incrementally but surely into an age of digital authorship, in which digital works (i.e., software programs) will, relatively autonomously, produce other works that are indistinguishable from works of human authorship."30 In this essay, we contend that the conclusion to be derived from our current predicament is *not* that AIs can or eventually should be designated as authors. Indeed, we think the very idea of "AI authorship" is oxymoronic. Contrary to what many of today's commentators appear to imply, we believe that the threshold for attributing authorship does *not* depend on the evolution or state of the art in AI or robotics. Instead, we suggest that the very notion of "AI authorship" rests on a category mistake: it is not an error about the current or potential capacities, capabilities, intelligence, or sophistication of machines; rather, it is an error about the ontology of authorship. We identify the pathology of this category mistake in the confluence of three conceptual errors: an erroneous understanding of the critique of the romantic author and its application to AI; a related set of misunderstandings about the implications of literary theory's "death of the author"; and a false dichotomy that pretends that the only viable alternative to a romantic conception of authorship resides in US utilitarian copyright doctrine.

<sup>28</sup> Grimmelmann, *supra* note 27 at 403. The *Compendium of U.S. Copyright Office Practices* currently includes § 306, The Human Authorship Requirement: "The U.S. Copyright Office will register an original work of authorship, provided that the work was created by a human being.... Because copyright law is limited to 'original intellectual conceptions of the author,' the Office will refuse to register a claim if it determines that a human being did not create the work. *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884)": US, Copyright Office, *Compendium of U.S. Copyright Office Practices*, 3rd ed (Washington, DC: 29 September 2017).

<sup>29</sup> Grimmelmann, *supra* note 27 at 403. Grimmelmann, himself, takes a different view, as his title clearly implies, suggesting that such a shift would require something in the nature of a singularity to occur, in which case, he wryly observes, "copyright would be the least of our concerns" (*ibid* at 403).

<sup>30</sup> Bridy, "Coding Creativity", supra note 27 at 3.

It is practically indisputable—and perfectly predictable—that utilitarian copyright doctrine might one day generate the rational legal proposition that an AI can be an "author" for the purposes of establishing and allocating exclusive rights under law. There is also no doubt that, should policy considerations push us in that direction, existing copyright doctrine is very capable of extending its existing catalogue of legal fictions and ambiguous constructions to encompass AI-generated works as copyrightable works of original authorship as a matter of law.<sup>31</sup> Nevertheless, we think there are compelling grounds for regarding such a conclusion as "nonsense upon stilts."<sup>32</sup> Pamela Samuelson offered the first such response 35 years ago, noting that it makes no sense to allocate intellectual property rights to machines because machines are not the kind of entity that needs incentives in order to generate output.<sup>33</sup> Although hers is one of the most cited statements in the literature on computer-generated works, many of the second-generation scholars writing on the subject seem to have missed the point of her prescient claim that "[o]nly those stuck in the doctrinal mud could even think that computers could be 'authors'."34 As Samuelson rightly suggests, the answer to the conundrum of the so-called 'AI author' lies not in the interpretation or application of copyright's originality doctrine but in a proper understanding of what copyright is for. Importantly, this does not merely require that we reframe the question in utilitarian terms.35 A proper understanding of what copyright is for demands a fuller

<sup>31</sup> See e.g. Bridy, "Evolution", *supra* note 27 (arguing that the US work-made-for-hire doctrine would offer an appropriate framework for resolving the ownership of AI-authored works by, for example, treating the AI programmer as equivalent to an employer); Denicola, *supra* note 27 (arguing that machine-generated works can meet the public-welfare oriented standards of copyrightability, and the humans who instigate the creation of computer-generated works can qualify as "authors" under current law). In the United Kingdom, a legislative amendment already appears to extend copyright to computer-generated works by deeming the author to be "the person by whom the arrangements necessary for the creation of the work are undertaken": *Copyright, Designs and Patents Act* 1988 (UK), s 9(3). Similar provisions exist in the Republic of Ireland, New Zealand, Hong Kong, and India.

John Bowring, ed, *The Works of Jeremy Bentham*, vol 2 (Edinburgh: William Tait, 1843) at 501 (first English-language printing), reprinted in Philip Schofield, Catherine Pease-Watkin & Cyprian Blamires, eds, *The Collected Works of Jeremy Bentham: Rights, Representation, and Reform; Nonsense Upon Stilts; and Other Writings on the French Revolution* (Oxford: Oxford University Press, 2002) at 317.

<sup>33</sup> Samuelson, supra note 25 at 1199.

<sup>34</sup> Ibid at 1200.

<sup>35</sup> See also Craig, "Copyright and AI", *supra* note 15 at Part 1.4 (suggesting an approach guided by the purposes of copyright—the balance between promoting the public interest in the encouragement and dissemination of works of the arts and intellect and obtaining a just reward for creators—as articulated by the Supreme Court of Canada in *Théberge v* 

appreciation of what copyright's delimiting concept of authorship is for. To be copyrightable, works must owe their origin to an act of authorship. Originality is the corollary of authorship; it is concerned not with the work as product but with the authorial process.<sup>36</sup> Through the consequentialist frame, then, the first question we should be asking is not "what is original authorship?" or even "how should we incentivize it?", but rather, "why is it that we seek to encourage the activity of authorship?"

Paying heed to Samuelson's advice, there will be no mud wrestling with copyright's originality threshold in this article.<sup>37</sup> Instead, we accept Samuelson's challenge to produce a richer theoretical account that asks whether claims of AI authorship "make sense in terms of the realities of the world in which the problem exists."<sup>38</sup> Those realities, we argue, must push us past bare doctrinal or utilitarian considerations of originality, assessed in terms of what an author must *do*. Instead, what they demand is an ontological consideration of what an author must *be*. The ontological question, we suggest, requires an account of authorship that is relational; it necessitates a vision of authorship as a dialogic and communicative act that is inherently social, with the cultivation of selfhood and social relations as the entire point of the practice.

Our aim here, in providing this account of authorship, is not to propose specific answers to policy questions about whether and how exclusive rights *should* be granted in respect of AI-generated works. Rather, it is to urge that, however those answers are ultimately arrived at, they must not

- Galerie d'Art du Petit Champlain inc, 2002 SCC 34 at para 30). Cf Denicola, supra note 27 (suggesting that we focus on the nature of "writings" rather than "authors" to reorient the policy question towards progress and public welfare).
- In the US, originality is therefore understood to be a constitutional requirement: "Article I, § 8, cl. 8, of the Constitution...authorizes Congress to 'secur[e] for limited Times to Authors...the exclusive Right to their respective Writings": Feist Publications Inc v Rural Telephone Service Co Inc, 499 US 340 (1991) at 346 [Feist Publications]. The originality threshold is not an objective assessment but a subjective one, the point of which is to identify an authorial act. See CCH Canadian Ltd v Law Society of Upper Canada, 2004 SCC 13 [CCH Canadian] (finding that "an original work must be the product of an author's exercise of skill and judgment" at para 25); Telstra Corporation Ltd v Phone Directories Company Pty Ltd, [2010] FCAFC 149 at paras 133–34, 137 (requiring that an original work must demonstrably be the product of human authorship).
- For a discussion about how Canada's originality doctrine might apply to AI-generated works, see Craig, "Copyright and AI", *supra* note 15 (arguing that, although we can readily analogize technical AI processes to the exercise of skill and judgment, if we "simply ask whether an AI system is *itself* exercising 'intellectual effort' in the 'expression of ideas,' it seems abundantly clear that the answer must be *no*" at Part 1.3).
- 38 Samuelson, supra note 25 at 1200.

flow from a loaded but mistaken notion of AI-as-author. We will surely misallocate legal rights and privileges—and the economic wealth and power they entail—if we begin our policy-making efforts by misattributing authorship to AI. Of course, if, as we contend, AI-generated outputs are not works of authorship, then they belong for now in the public domain by default. But as we see it, the ontological inquiry into the plausibility of AI authorship transcends copyright law and its particular doctrinal conundrums in the digital age, going to the normative core of how law should—and should not—think about robots and AI, their regulation, and their role in human relations.

In what follows, Part II sets out to explain how we understand the idea of the romantic author and the significance of his<sup>39</sup> so-called death, drawing on both legal and literary scholarship. In Part III, we consider the nature of AI, anthropomorphic framing, and the tendency to romanticize the AI-as-author. Part IV explains what it means to *de*-romanticize authorship in the copyright context and, in particular, why this requires something other than simply shifting focus away from authors to social welfare, or moving from rights-based to utilitarian accounts of the copyright system. In Part V, we propose a de-romanticized ontology of authorship premised on relational theory that gets to the heart of why authorship matters—and why it is, therefore, a fundamentally human endeavour. Ultimately, we conclude that, paradoxical as it may seem, the demise of romantic authorship should also spell the death of the AI author.

### II. ROMANTICISM AND THE DEATH OF THE AUTHOR

The author is the protagonist of copyright law. The start of the modern copyright system is commonly traced to the moment when the author emerged, for the first time, as the bearer of exclusive legal rights over his work of authorship.<sup>40</sup> It is the act of authorship that gives rise—now

<sup>39</sup> We use "he/him/his" advisedly when referring to the romantic author and copyright's traditional author figure in order to highlight the gendered nature of the author construct that is the subject of our critique.

This occurred with the enactment of the Statute of Anne (UK), 1710, 8 Ann, c 19. See generally Lyman Ray Patterson, Copyright in Historical Perspective (Nashville, TN: Vanderbilt University Press, 1968) at 143. See Carys J Craig, "Reconstructing the Author-Self: Some Feminist Lessons for Copyright Law" (2007) 15:2 J Gender Soc Pol'y & L 207; Carys J Craig, "Feminist Aesthetics and Copyright Law: Genius, Value, and Gendered Visions of the Creative Self" in Irene Calboli & Srividhya Ragavan, eds, Diversity in Intellectual Property: Identities, Interests, and Intersections (New York: Cambridge University Press, 2015) 273.

automatically and instantaneously—to the copyrightable work; it is the author in whom the copyright is presumed to vest; and it is the author's lifetime that determines the duration of the copyright interest.<sup>41</sup> Notwithstanding the legal importance of the author, however, "authorship has never been explicitly defined in international or national copyright laws."<sup>42</sup> Given the author's centrality in the copyright scheme, the persistent elusiveness of authorship in copyright doctrine might seem surprising. As Oren Bracha writes, "[a]uthorship is copyright's ghost in the machine."<sup>43</sup> Less surprising, then, is that the author figure has consistently been a subject of critical inquiry in intellectual property scholarship—much of which has sought to show that this mystical spirit in the material world of copyright is fundamentally misconceived.

In the last decades of the 20<sup>th</sup> century, in particular, a number of leading copyright and literary scholars sought to reveal that the law's vision of the author was tainted by the hue of romanticism, making it conceptually ill-suited to the role required of it by the copyright system. Martha Woodmansee laid important groundwork in her historical investigation into the nexus between the professionalization of writing in 18<sup>th</sup>-century Europe and the "reconceptualization of the creative process."<sup>44</sup> According to Woodmansee, writers, hoping to secure their livelihoods through their writings, played a critical role in shaping the modern concept of authorship, downplaying the element of craftsmanship in favour of personal genius,

- 42 Alina Ng Boyte, "The Conceits of Our Legal Imagination: Legal Fictions and the Concept of Deemed Authorship" (2014) 17:3 NYUJ Legis & Pub Pol'y 707 at 747.
- 43 Oren Bracha, "The Ideology of Authorship Revisited: Authors, Markets, and Liberal Values in Early American Copyright" (2008) 118:2 Yale LJ 186 at 188. As we demonstrate in Part III, there are similar ghosts in machine learning.
- 44 Martha Woodmansee, "On the Author Effect: Recovering Collectivity" in Peter Jaszi & Martha Woodmansee, eds, *The Construction of Authorship: Textual Appropriation in Law and Literature* (Durham, NC: Duke University Press, 1994) 15 at 27 [Woodmansee, "Author Effect"].

<sup>41</sup> These are core elements of the international copyright regime under the *Berne Convention* for the Protection of Literary and Artistic Works, 24 July 1971, 1161 UNTS 3, arts 5, 7 (15 December 1972) [Berne], and, by extension the Agreement on Trade Related Aspects of Intellectual Property Rights, 15 April 1994, 1869 UNTS 299, art 9 (1 January 1995) [TRIPS]. The language of these legal instruments assumes that authors are natural persons with nationalities and finite life spans. Article 6 of Berne further requires that member states protect authors' moral rights to claim authorship and to object to certain modifications and other derogatory uses of their works.

As Sam Ricketson has noted, such protections "make no sense other than in relation to human authors": Sam Ricketson, "The 1992 Horace S Manges Lecture – People or Machines: The Berne Convention and the Changing Concept of Authorship" (1991) 16:1 Colum J L & Arts 1 at 11.

with the aim of presenting the inspired work as "peculiarly and distinctively the product—and the property—of the writer."45 As the "writer [became] an author (Lat. auctor, originator, founder, creator),"46 the claim to property seemed naturally to follow. The idea of the radically original author-genius—one who creates ex nihilo and is the sole and ultimate origin of the work—was bundled with ideas of ownership, blended with popular theories of natural justice and claims to right, and culminated in the idea of the original work as the literary property and sole dominion of the worthy author.<sup>47</sup> Peter Jaszi joined Woodmansee in arguing that the author was an "ideologically charged concept" that functioned to individualize authorship in the eyes of the law, causing it to overprotect authors who fit the individualistic, romantic mold while neglecting the necessarily collaborative and cumulative processes of creativity.<sup>48</sup> Mark Rose similarly examined copyright's formative period—in particular the literary property debates of 18th-century Britain—concluding that the resulting "discourse of original genius and...the problems inherent in the reifications of the author and work"49 persist today, complicating the application of copyright doctrine, and "obscur[ing] the fact that cultural production is always a matter of appropriation and transformation."50

James Boyle has argued, along similar lines, that the romantic author-vision that emerged during this time causes us still to value some forms of creation over others, and to underestimate the importance of external sources in the creative process.<sup>51</sup> But Boyle's work offers perhaps the most sweeping critique of the romantic author figure, not only as a

<sup>45</sup> Martha Woodmansee, "The Genius and the Copyright: Economic and Legal Conditions of the Emergence of the 'Author'" (1984) 17:4 Eighteenth-Century Studies 425 at 427 [Woodmansee, "Genius"]. See also Martha Woodmansee, *The Author, Art, and the Market: Rereading the History of Aesthetics* (New York: Columbia University Press, 1994) at 37 [Woodmansee, *Author, Art, and Market*].

<sup>46</sup> Woodmansee, "Genius", *supra* note 45 at 429; Woodmansee, *Author*, *Art and Market*, *supra* note 45 at 38.

<sup>47</sup> See e.g. Ronan Deazley, On the Origin of the Right to Copy: Charting the Movement of Copyright Law in Eighteenth-Century Britain (1695-1775) (Oxford: Hart Publishing, 2004) at 31–50.

Peter Jaszi, "Toward a Theory of Copyright: The Metamorphoses of 'Authorship'" [1991] 2 Duke LJ 455 at 456. See also Martha Woodmansee & Peter Jaszi, eds, *The Construction of Authorship: Textual Appropriation in Law and Literature* (Durham, NC: Duke University Press, 1994).

<sup>49</sup> Mark Rose, *Authors and Owners: The Invention of Copyright* (Cambridge, Mass: Harvard University Press, 1993) at 141.

<sup>50</sup> Ibid.

<sup>51</sup> See James DA Boyle, "The Search for an Author: Shakespeare and the Framers" (1988) 37:3 Am U L Rev 625; James Boyle, Shamans, Software, and Spleens: Law and the Construction of

persistent trope in copyright discourse, but as a pervasive presence regulating the production and distribution of information products and intellectual property (and so wealth) in the global economy. In this rendition, the romantic author guides the commodification and allocation of rights over information, constructing moral hierarchies, rationalizing exclusion, and shaping normative assumptions around legal ownership and entitlement.<sup>52</sup> For Boyle, this author-vision "is not merely a set of mistakes in thinking about the balance between incentives and efficiency, public domain and private right. It is the focal point of a language of entitlement, an ideology every bit as rich and important as that of wage labor and the will theory of contract."53 It is, in other words, an ideological tool for establishing and justifying inequalities of wealth and power in the new information age. Recognizing the function of this author-vision, Boyle suggests, allows us to perceive not just isolated outcomes or injustices produced by the language of entitlement in particular cases, but the systemic patterns and structures that produce these effects.

Ground-breaking as this rich wave of romantic authorship scholarship proved to be, a common rejoinder was to point to the many ways in which the core characteristics of romantic authorship failed to map onto existing legal doctrine. Thus, Mark Lemley objected to Boyle's thesis on the basis that "[t]here are numerous aspects of intellectual property law that not only cannot be explained by the romantic authorship theory, but which seem affirmatively inimical to it."<sup>54</sup> In particular, Lemley pointed to rules regarding intellectual property ownership, which "are heavily skewed to protect the interests of corporations, not individual authors," with the obvious example being the US work-for-hire doctrine that deems even corporate employers to be the authors and owners of their employees' works.<sup>55</sup> Others have pointed to the minimal threshold for copyright protection, which—far from requiring a demonstration of personal genius or even novel, independent thought—asks only for a mere modicum of creativity or, in some jurisdictions, none at all, if a minimal amount of skill, labour,

the Information Society (Cambridge, Mass: Harvard University Press, 1996) at 51–60 [Boyle, Shamans].

<sup>52</sup> Boyle, Shamans, supra note 51.

<sup>53</sup> Ibid at 173.

<sup>54</sup> Mark A Lemley, "Romantic Authorship and the Rhetoric of Property", Book Review of Shamans, Software, and Spleens: Law and the Construction of the Information Society by James DA Boyle (1997) 75:4 Tex L Rev 873 at 882.

<sup>55</sup> Ibid at 882–83, n 60 (citing Copyrights, 17 USC § 201(b) (1994); Community for Creative Non-Violence et al v Reid, 490 US 730 at 737 (1989)).

or judgment is involved.<sup>56</sup> As Bracha notes, Woodmansee's suggestion that today's intellectual property laws require, as a result of the reconceptualization of authorship, "'a unique, original product of the intellection of a unique individual'...is simply dead wrong."<sup>57</sup>

Bracha is correct to complicate the story, acknowledging the innumerable tensions and inconsistencies that emerge when one attempts to map the assumptions of romantic authorship onto the prescriptions and dictates of copyright doctrine. As he demonstrates, the legal iteration of the author figure is the culmination not just of a particular ideological vision of authorship, but of a complex array of pragmatic, economic, and political factors that, over time, defined key versions of authorship and ownership for the purposes of the law and its effective functioning in service of particular interests.<sup>58</sup> Importantly, however, the added complexity in the romantic authorship narrative does not detract from the more fundamental insights that emerged from this body of critical scholarship: the point was never that copyright law demanded a creative genius, but that the shifting spectre of the romantic author figure informs the broader ideological assumptions that swirl around the copyright rights-bearer. Indeed, this spectral quality is what gives the romantic author the power to function as "a stalking horse for economic interests that [are] (as a tactical matter) better concealed than revealed."59 Even if, as Jaszi observed, the romantic author's reflections in law sometimes look more like "images in funhouse mirrors,"60 the conclusion holds firm: "[The] picture [of] solitary authors creating original ideas ex nihilo through their intellectual labors...lies at the normative heart of our vision of copyright."61

Crucially, for our purposes, this picture of the solitary author instantiates a particular vision of the self as legal subject: "[T]he romantic author [merges] with the rights-bearing individual valorized by liberal political

<sup>56</sup> See e.g. Feist Publications, supra note 36; CCH Canadian, supra note 36; IceTV Pty Limited v Nine Network Australia Pty Limited, [2009] HCA 14.

<sup>57</sup> Bracha, *supra* note 43 at 195. See also Erlend Lavik, "Romantic Authorship in Copyright Law and the Uses of Aesthetics" in Mireille van Eechoud, ed, *The Work of Authorship* (Amsterdam: Amsterdam University Press, 2014) 45 at 53.

<sup>58</sup> Bracha, *supra* note 43 (filling in the historical gap from the late 18<sup>th</sup> century to explain how we arrived at "the modern copyright framework, which simultaneously is pervaded by the ideology of authorship and has little to do with it" at 197).

<sup>59</sup> Jaszi, supra note 48 at 500.

<sup>60</sup> Ibid at 456.

<sup>61</sup> Bracha, supra note 43 at 188 [emphasis added].

theory."<sup>62</sup> Indeed, we would go further to say that the original rights-bearing author of copyright law *is* the radically individualized, atomistic subject of possessive individualism.<sup>63</sup> Foucault observed the overlap in his 1969 lecture "What is an Author?" when he described the emergence of this notion of author as "the privileged moment of *individualization* in the history of ideas, knowledge, literature, philosophy and the sciences."<sup>64</sup> Through this process of individualization, he noted, the author acquired "a role quite characteristic of our era of industrial and bourgeois society, of individualism and private property."<sup>65</sup> "[T]he moment when a system of ownership and strict copyright rules were established (toward the end of the eighteenth and beginning of the nineteenth century)" was, for Foucault, "the moment [at which the author] was accepted into the social order of property which governs our culture."<sup>66</sup> Texts and books *with authors* became forms of property and "objects of appropriation."<sup>67</sup>

Foucault explored the figure of the author not as a person or persona—even a mythic one—but as a *function* of discourse. For Foucault, the author function plays a discursive role as a *process* of interpretive practice: "[The author] is a certain functional principle by which, in our culture, one limits, excludes, and chooses.... The author is therefore the ideological figure by which one marks the manner in which we fear the proliferation of meaning." As an ideological figure, then, the author functions to control and restrain meaning by presiding over the text, dominating it as sovereign. Foucault takes the following question from Samuel Beckett: "What does it matter who is speaking?" Someone said, what does it matter who is speaking?" With this, Foucault brings the speaking subject into his inquiry, only to dismiss it as seemingly irrelevant to the author-function as such: "It is

<sup>62</sup> Margaret Chon, "The Romantic Collective Author" (2012) 14:4 Vanderbilt J Entertainment & Technology L 829 at 831.

<sup>63</sup> See CB Macpherson, *The Political Theory of Possessive Individualism: Hobbes to Locke* (Oxford: Clarendon Press, 1962) at 33; Charles Taylor, *Philosophy and the Human Sciences: Philosophical Papers* 2 (Cambridge, UK: Cambridge University Press, 1985) at 187.

<sup>64</sup> Michel Foucault, "What is an Author?" in *The Foucault Reader*, ed by Paul Rabinow (New York: Pantheon Books, 1984) at 101 [Foucault, "What is an Author"] [emphasis in original].

<sup>65</sup> Ibid at 119.

<sup>66</sup> Michel Foucault, "What is an Author?" in Donald F Bouchard, ed, Language, Counter-Memory, Practice: Selected Essays and Interviews by Michel Foucault (New York: Cornell University Press, 1977) 113 at 125.

<sup>67</sup> Michel Foucault, "What is an Author?" in Donald Preziosi, ed, *The Art of Art History: A Critical Anthology* (Oxford: Oxford University Press, 1998) 299 at 305–06.

<sup>68</sup> Foucault, "What is an Author", supra note 64 at 119.

<sup>69</sup> Ibid at 101.

not a question of who is speaking the text, but what the text communicates through the author-function and how discourse opens through appropriation."

The author's distance or death frees us to imagine a culture in which discourses circulate without the need for a "real author." Rather than asking for proof of the author's authenticity and originality, then, we might ask new questions: "What are the modes of existence of this discourse?' 'Where does it come from; how is it circulated; who controls it?' 'What placements are determined for possible subjects?' 'Who can fulfill these diverse functions of the subject?"

The author-function and how discourse opens through appropriation."

Many regard Foucault's lecture as responding to Roland Barthes's essay, "The Death of the Author"—an exercise in prodding at "the empty space left by the author's disappearance." Barthes, in declaring this death, sought to disentangle the text from the author who, "when we believe in him," is conceived as pre-existing the text, just as a father is antecedent to his child. For Barthes, also, "[t]o give an Author to a text is to impose upon that text a stop clause, to furnish it with a final signification, to close the writing. To refuse to assign an author is therefore to liberate the text to be "eternally written here and now" in an ongoing process of meaning-making. The written text is not a stable thing but a performative utterance:

[A] writing which can know no end or halt:...the book itself is only a tissue of signs, a lost, infinitely remote imitation.... [R]efusing to assign to the text...an ultimate meaning, liberates an activity which we might call counter-theological, properly revolutionary, for to refuse to arrest meaning is finally to refuse God and his hypostases, reason, science, the law.<sup>76</sup>

What must be underscored here, for our purposes, is that the death of the author is *not* the death of the speaking subject—the writer, if you will—but the death of the Author with a capital A, or, in other words, the *author-function*: the illusive unified, authentic self who presides over the

<sup>70</sup> Marisa C Sánchez, "Foucault's Beckett" in Catherine M Soussloff, ed, Foucault on the Arts and Letters: Perspectives for the Twenty-First Century (London: Rowman & Littlefield International, 2016) 121 at 124.

<sup>71</sup> Foucault, supra note 67 at 314.

<sup>72</sup> Ibid at 303.

<sup>73</sup> Rolande Barthes, "The Death of the Author", translated by Richard Howard, *Aspen* no 5+6 (Fall-Winter 1967) item 3, online: *UbuWed* <www.ubu.com/aspen/aspen5and6/threeEssays. html#barthes>.

<sup>74</sup> Ibid.

<sup>75</sup> Ibid.

<sup>76</sup> Ibid.

text and its meaning. By freeing ourselves of the ideology of the romantic author, we can understand the text as circulating discourse and concern ourselves with the place and function of the speaking subject in discursive relations to and through the text. Some important insights to this effect can be gleaned from a rich strand of feminist literary criticism that tackled the question of whether Barthes's obliteration of the authorial subject was consistent with—or inimical to—the feminist project of recognizing women's claims to authorship status.<sup>77</sup>

On one hand, Nancy Miller, for example, cautioned that the death of the author entailed an erasure of the writer's identity that risked eliminating the feminist cause of reclaiming women's voices. 78 Susan Stanford Friedman similarly warned against devaluing the agency of subjectivity. 79 On the other hand, for post-structuralist feminists like Peggy Kamuf, displacing the author's *authority* dislodges the patriarchal author, making way for the power of perpetual re-interpretation and renewal. Seen in this way, the de-constructionist project "actually frees women to experience their subjectivity as it is" —fluid and multi-contextual, dialectically constructed through language, and "always mediated through other categories like race, ethnicity, religion, class, national origin, sexual preference," *etc.* 81 Cheryl Walker nicely captures feminists' "dead author dilemma" when she writes:

What we need, instead of a theory of the death of the author, is a new concept of authorship that does not naively assert that the writer is an originating genius, creating aesthetic objects outside of history, but does

<sup>77</sup> See e.g. Sarah Wilson, "Situated Authorship: Feminist Critical Engagement with Roland Barthes's 'The Death of the Author'" [2012] Verso: Undergraduate J Literary Criticism, online (pdf): *Dalhousie University* <ojs.library.dal.ca/verso/article/viewFile/513/511>.

<sup>78</sup> See Nancy K Miller, "The Text's Heroine: A Feminist Critic and Her Fictions" (1982) 12:2 Diacritics 48.

<sup>79</sup> Wilson, supra note 77 at 6–7, citing Susan Stanford Friedman, "Weavings: Intertextuality and the (Re)Birth of the Author" in Jay Clayton & Eric Rothstein, eds, Influence and Intertextuality in Literary History (Madison, Wis: University of Wisconsin Press, 1991) 146 at 157.

<sup>80</sup> Wilson, *supra* note 77 at 4, citing Peggy Kamuf, "Replacing Feminist Criticism" (1982) 12:2 Diacritics 42 at 45–46.

<sup>81</sup> *Ibid* at 5, citing Susan Stanford Friedman, "Post/Poststructuralist Feminist Criticism: The Politics of Recuperation and Negotiation" (1991) 22:2 New Literary History 465 at 471; Catherine Belsey, "Constructing the Subject: Deconstructing the Text" in Judith Newton & Deborah Rosenfelt, eds, *Feminist Criticism and Social Change: Sex, Class and Race in Literature and Culture* (New York: Methuen, 1985) 45 at 50.

not diminish the importance of difference and agency in the responses of women writers to historical formations.  $^{82}$ 

Walker dismisses the suggestion that Barthes eliminated the idea of authorship, explaining: "What he is claiming is that a proper theory of the text does not make its meaning *depend* on authors as unified subjectivities or on readers given individual characteristics." The work is not reducible to the representation of a single individual with a stable, transcendent identity, and there is no single, coherent subject-position. But biography and text must continue to interact, in Walker's understanding, so that we do not neglect to consider the way the speaker's subjectivity is differently experienced and shaped by the forces of place, time, and identity. The trace of the author is, however, just one of a multiplicity of shifting subjectivities always present and continually recreated in the text.

Invoking Foucault's famous question, "what does it matter who speaks?," Miller contrasts her view of female authorship with that of Kamuf: "Kamuf doesn't care whether the Portuguese Letters were written by a woman or by a man, and I do."84 Importantly, Foucault did not go so far as to state that it does not matter who is speaking; rather, he invited us to consider whether it matters, and if so why. We might reasonably respond, as feminist literary scholar Laurie Finke does, that "it matters, but for different reasons from those we have in the past supposed: not because a fixed, pre-existing self expresses itself through discourse, but because discourses...are part of the evolving, open-ended, and shifting process of becoming a subject."85 Feminist literary criticism has, through a careful and nuanced engagement with post-structuralist theories of the author's demise, widely rejected the false choice between radically fragmented subjectivity and paternalistic, originary identity; what emerges from this critical feminist conversation is a rich concept of "political intertextuality" that "seems to provide for a situated subjectivity, both allowing for fluidity and acknowledging the inevitably plural nature of identity."86 The expressive subject remains relevant as one of many possible subjects performing a diverse range of

<sup>82</sup> See Cheryl Walker, "Feminist Literary Criticism and the Author" (1990) 16:3 Critical Inquiry 551 at 560.

<sup>83</sup> Ibid at 567 [emphasis in original].

<sup>84</sup> Miller, supra note 78 at 50.

<sup>85</sup> See Laurie A Finke, *Feminist Theory, Women's Writing* (Ithaca, NY: Cornell University Press, 1992) at 111 [emphasis added].

<sup>86</sup> Wilson, supra note 77 at 7, citing Friedman, supra note 79 at 153, 158.

discursive functions, simultaneously constituting and being constituted by the circulating text.

The idea of "intertextuality" was originally coined by feminist and post-structuralist Julia Kristeva, drawing together the core insights of de Saussure's semiotic theory and Bakhtin's dialogic theory.<sup>87</sup> Apparently, it was Kristeva who introduced Bakhtin's work on dialogism to Roland Barthes's seminar in Paris. 88 While Bakhtin did not use the term "intertextuality," his theory of language presented discourse as inherently dialogic and multivocal: every utterance exists in relation to other utterances, he argued, with the result that all utterances must be understood as interactive and inter-animating.<sup>89</sup> Like Barthes, Bakhtin had rejected the monologic author, insisting that every utterance contains within it myriad voices ("heteroglossia") that stand in dialogic relationship with one another.90 But we also find in Bakhtin a more explicit connection between literary theory and theories of human communication: if any true understanding of a text is necessarily historical and personified, we can regard the dialogic relation between texts also as a kind of interpersonal dialogue.<sup>91</sup> The crucial idea of the utterance captures "the human-centred and socially specific aspect of language." 92 As clarified by Kristeva, the subject of the utterance "calls to mind the act of producing a form of words which involves a human subject."93 For Bakhtin, language is always a struggle between competing codes and constructions, existing in the "realm of cultural activity, where it participates in the

<sup>87</sup> See generally Graham Allen, *Intertextuality*, 2nd ed (Abingdon, UK: Routledge, 2011) at 8–58.

<sup>88</sup> See Hans Harder, "A Few Introductory Remarks on Bakhtin and Intertextuality" (last modified 7 September 2020), online: *Society and Culture in Motion* <a href="www.scm.uni-halle.de/\_/reporting\_list/study\_days/sektion1/2303855\_2303900">www.scm.uni-halle.de/\_/reporting\_list/study\_days/sektion1/2303855\_2303900</a>.

<sup>89</sup> Mikhail Bakhtin, *The Dialogic Imagination: Four Essays*, ed by Michael Holquist, translated by Caryl Emerson & Michael Holquist (Austin, TX: University of Texas Press, 1981) at 354 [Bakhtin, *Dialogic Imagination*]; Finke, *supra* note 85 at 12.

<sup>90</sup> Bakhtin uses the term "heteroglossia" (or untranslated: raznojazychie) to capture the dynamic complexity and clamorousness of this contested field of multivocal utterances. Mikhail Bakhtin, "Discourse in the Novel" in Holquist, ed, supra note 89, 259 at 271 [Bakhtin, "Discourse in the Novel"].

<sup>91</sup> Harder, *supra* note 88, citing Michel Bakhtin, "Toward a Methodology for the Human Sciences" in Caryl Emerson & Michael Holquist, eds, *Speech Genres and Other Late Essays*, translated by Vern W McGee (Austin, TX: University of Texas Press, 1986) 159 at 162.

<sup>92</sup> Allen, supra note 87 at 16.

<sup>93</sup> Ibid at 39 [emphasis in original], quoting Jeremy Hawthorn, A Concise Glossary of Contemporary Literary Theory (London, UK: Edward Arnold, 1992) at 57.

historical, social, and political life of its speakers... as both a production and a producer of social relations."  $^{94}$ 

In critical literary theory, debates around the nature and function of authorship have *not* left a gaping void where the author figure used to happily reside; rather, they have produced—and continue to produce—a dynamic vision of authorship connected to a complex conception of human selfhood. From the death of the author, we have retrieved something in between classical essentialism and the destruction of identity—"a positioned yet socially, culturally and historically dispersed subjecthood."<sup>95</sup> This situated vocal author, like Bakhtin's author, is not dead:

The author...still stands behind his or her novel, but s/he does not enter into it as a guiding authoritative voice. Bakhtin's author also cannot be said to spin his or her characters out of an original imagination. Much of [the author's] speech...exists as reiterations, parodies, transformations and other kinds of appropriation of existing speech genres, utterances, and words associated with particular ideological, class and other distinct social and cultural positions.<sup>96</sup>

Armed with the idea of intertextuality, we can understand that subjects are constructed and reconstructed through the interplay of texts, which are themselves situated utterances that clash and combine in a "genuine polyphony of fully valid voices." If we collectively value and seek to encourage the act of authorship through law and policy, surely it is not the originating, controlling, and ultimately mythic romantic authorship that we mean to instigate and reward; rather, the entire point of the social practice of authorship is precisely this discursive participation in the dialogic process of human interaction and the mutually constitutive creation and exchange of text, meaning, and identity.98

<sup>94</sup> Finke, supra note 85 at 13, citing Bakhtin, "Discourse in the Novel", supra note 90 at 276.

<sup>95</sup> Wilson, supra note 77 at 8.

<sup>96</sup> Allen, *supra* note 87 at 23–24.

<sup>97</sup> Mikhail Bakhtin, *Problems of Dostoevsky's Poetics*, ed by Caryl Emerson, translated by Caryl Emerson (Minneapolis, Minn: University of Minnesota Press, 1984) at 6–7 [Bakhtin, *Dostoevsky's Poetics*].

<sup>98</sup> Interestingly, Annemarie Bridy has invoked Bakhtinian ideas of intertextuality in examining the limits of copyright protection and moral rights, as well as the scope of fair use in the US copyright system. See Annemarie Bridy, "Fearless Girl Meets Charging Bull: Copyright and the Regulation of Intertextuality" (2019) 9:2 UC Irvine L Rev 293 [Bridy, "Fearless Girl"] (arguing that "US copyright law is hospitable to intertextuality by design" at 299). Bridy's focus is on the dialogic text-text and author-author relationships, but she does not explicitly reflect on the author-text relationship that a dialogic theory would

At this stage, before we turn to tackle (mis)conceptions of AI "authorship," we can pause to draw out two important points from this discussion, which should help to inform what follows. First, to insist that authorship is a fundamentally human endeavour is not necessarily to invoke a romantic vision of authorship. (Indeed, it is only by resisting the romantic vision that we can understand what is truly human about the authorial act.) Second, by the same token, to accept the notion of AI authorship is not necessarily to reject a romantic vision of authorship. (Indeed, those committed to AI authorship often conjure up the mystical romantic author as a ghost in the creative machine.)

It is easy to understand the confusion that arises when we layer author functions and legal fictions onto creative people and productive processes. Consider the following passage by Ng Boyte who, warning about the consequences of deeming authorship in copyright doctrine, seems to regret the interplay of literary theory and legal discourse:

When the law [deems authorship]...the question of who is the actual creator of a work is bound to lose significance.

It certainly does not help that academic literature has neither bolstered nor augmented this scant image of the author in copyright law. Some prominent scholars...have advanced the postmodern view [citing Barthes and Foucault] that the author is a socially constructed metaphor that supports individualism, the privatization of creative production, and the commercialization of literary and artistic works, making the notion of the author even more ambiguous in copyright law....

By designating [someone other than the true creator] as the author... any tangible conception of the author is diminished further. If the author is a mere social construct as these postmodern theories suggest, the persona of the author carries very little meaning and need not attach to the actual creator of the work *nor to any real or natural person*; it may be deemed on any entity the law deems appropriate.<sup>99</sup>

While Ng Boyte is not concerned here with the question of AI-generated works, this passage nicely demonstrates both the line of reasoning that opens the doctrinal door to deeming authorship by AI (the author has been reduced to an empty vessel waiting to be filled by anyone or anything)—and the common ideological objection to doing so (reinscribing

entail and how this might inform the deemed AI authorship arguments advanced in her earlier work.

<sup>99</sup> Ng Boyte, *supra* note 42 at 748–52 [emphasis added].

the claim rights of the individual human author). As such, it is worth noting the interesting juxtaposition between different conceptions of the author at play in this passage: the "actual" or "true creator" (cast as the tangible person, the author-in-fact, who most resembles the original romantic author figure) and the legal author (the author-in-law, whether by virtue of "actual creativity" or a more explicit legal fiction). Ng Boyte cautions that obscuring or mystifying true authors through law will lead to the alienation of the actual creator's status as author and the personal rights this status entails, and potentially diminish the value of originality. We are left with the impression of a binary opposition between the authentic author who deserves to be recognized as the work's true originator, and the fictional legal author who lays claim to its commoditized form in the legal world. $^{100}$ In both iterations, however, the author is operating as a function of discourse in the Foucauldian sense; in neither does the author appear as the situated speaking subject—the de-romanticized discursive agent—that we have described.

#### III. ROMANTICIZING AI

It is important to understand how critiques of romanticism and death of the author literature link to the debate on AI authorship.

If the romantic author is the individualized self of liberal political theory, then his death is the demise of a radically individual subject who precedes both text and social context. Notice that this is *not* a critique of humanism *per se*. It is a criticism of the idea that there is some stand-alone human who is the sole creator and master of a text. As such, it is simply a mistake to assume that the death of the author opens up, necessarily, the possibility of the non-human author. On the contrary, the entire point of the death of the author motif was to kill off a particular kind of non-human author—an ideological author that transcends the realities and relationships of lived human experience. As we demonstrate in Part V, the death of the romantic author demands that we recognize and breathe new life into a particular understanding of the author, not as a radically individual subject but a socially situated one—one who does not originate, occupy, or hypostasize discourse, but who is but a participant in its circulation, interpretation, and transformation.

<sup>100</sup> See also Bridy, "Coding Creativity", *supra* note 27; Bridy, "Evolution", *supra* note 27; Bridy, "Fearless Girl", *supra* note 98, similarly distinguishing between human authors and authors-by-law.

The reason for underscoring this point is that a number of scholars currently writing on the subject of AI authorship seem to be arguing the very opposite, suggesting that the death of the romantic author somehow clears a path toward AIs as authors. Annemarie Bridy, for example, says that advancements in AI "put an algorithmic twist on the postmodern 'death of the author' and lead to…questions of authorship, including how and when the law of copyrights should evolve…." The evolution to which she is of course referring is the move into a realm in which authorship is no longer exclusively within the human domain. Likewise, in her outstanding work on technological disruption, Margot Kaminski acknowledges a similar possibility, claiming that "the U.S. copyright system has already moved far enough away from romantic authorship for algorithmic authorship to be, perhaps surprisingly, not fundamentally disruptive." 102

As suggested in Part II, the logic underlying such claims rests on an unarticulated assumption that those who insist upon a human author as a prerequisite to copyright are committed to a romantic conception of authorship. By the same token, it seems to be assumed, those who entertain the possibility of "AI authors" are willing to shed the mantel of romantic authorship, adopting a more pragmatic and less ontological or dogmatic vision of what it means to create. As Kaminski puts it, the "romantic author is profoundly human; her creativity stems, in fact, from her humanity."103 Ultimately, this leads to a transposition from the original claim that critiques of romanticism open the door to AI authorship to a more powerful, though equally unsubstantiated, claim that the possibility of AI authorship undermines the view of authorship as uniquely human. Kaminski's version of the transposition asserts that: "In the abstract, algorithmic authorship fundamentally challenges the notion of the romantic author or speaker."104 Accordingly, she suggests, "[r]omanticizing creativity...is harder to do when a machine can produce the same creative works."105

But is this in fact the case?

In this Part, we apply foundational concepts from the field of human-computer interaction (HCI), human-robot interaction (HRI), and the emerging field of robotics and AI law and policy to an analysis of the current discourse regarding the neural networks used to produce portraits

<sup>101</sup> Bridy, "Coding Creativity", supra note 27 at 3.

<sup>102</sup> Kaminski, supra note 27 at 603.

<sup>103</sup> Ibid at 594.

<sup>104</sup> Ibid.

<sup>105</sup> Ibid.

and screenplays. Our aim is to illustrate how and why people are inclined not merely to humanize AI, but to romanticize it. Understanding the tendency to romanticize AI will help to explain why, despite relentless critiques of romanticism, a romantic portrayal of the AI-as-author is regularly assumed in popular culture and, albeit more subtly, in the academy.

In our view, this tendency to romanticize the AI-as-author is worthy of interrogation because we believe it is a catalyst to the resurgence of interest in treating computer-generated works as products of authorship. And, although scholars sympathetic to the possibility of AI authorship often couch their positions in utilitarian or functionalist terms, we will argue in Part IV that these scholars nonetheless make the same category mistake in presuming equivalence between human-authored works and AI-generated outputs; they treat AI as if it is a kind of being that it is not. As we go on to argue in Part V, belonging to the category of "author" requires participation in the social, relational, and dialogic practice of authorship. But first, here in Part III, we demonstrate that this is neither what AI does, nor what it is. To make our case, let us start by looking more precisely at what machine learning is doing when its outputs generate screenplays and portraits of the sort described in our introduction. What exactly is happening when an AI effectively substitutes for a human screenwriter or portrait painter?

Formulating the issue in this way, we borrow from the HCI/HRI literature, which tends to conceive of AI tasks and decision-making in terms of "delegation" or "substitution." The framework of substitution—rather than the question-begging assumption of algorithmic authorship—allows us to focus on the kind of work the AI is and *is not* doing. The substitution of AIs for humans produces what Jack Balkin calls the "substitution effect." The substitution effect occurs when—in certain contexts and for certain purposes—we treat AIs as special-purpose human beings. Sometimes we deliberately construct these substitutions, while at other times they are emotional or instinctual in nature. In the context of deliberate substitutions, Balkin is very careful to explain that we *ought not* to regard

<sup>106</sup> See Bruno Latour, "Where are the Missing Masses? The Sociology of a Few Mundane Artifacts" in Wiebe E Bijker & John Law, eds, *Shaping Technology/Building Society: Studies in Sociotechnical Change* (Cambridge, Mass: MIT Press, 1992) 225 at 225; Jason Millar & Ian Kerr, "Delegation, Relinquishment and Responsibility: The Prospect of Expert Robots" in Ryan Calo, A Michael Froomkin & Ian Kerr, eds, *Robot Law* (Cheltenham, UK: Edward Elgar Publishing, 2016) 102 at 102 [*Robot Law*].

<sup>107</sup> Jack M Balkin, "The Path of Robotics Law" (2015) 6 Cal L Rev 45 at 55. As Balkin's interlocutor, Ryan Calo, would point out, we could also frame the scenario in terms of affordances rather than substitution.

mechanical substitutes as fully identical to those for which they are a substitute. Rather—as with artificial sweeteners—we should see them as providing merely a provisional equivalence; we reserve the right to reject the asserted identity whenever there is no further utility in maintaining it. In other words, one must be extremely cautious not to allow the substitution to blur the underlying ontological category that is being substituted. The point is simple but profoundly important: AIs are not persons even if there is practical value, in limited circumstances, in treating them as such. Balkin is adamant: the substitution is partial. AIs take on only particular aspects and capacities of people in the performance of particular tasks.

According to Balkin, it is the very fact that the substitution is only partial—that AIs "straddle the line between selves and tools" that makes them, at once, both better and worse than their human counterparts. For example, an AI-enabled military robot may be superior in battlespace because it is not subject, as human soldiers are, to the fog of war, physical or mental fatigue, or some potentially potent revenge motive. On the other hand, military robots simply *do not* have *any* of the capacities that are vital to mitigating the violence of war; their quality of mercy is most definitely strained (and certainly "droppeth [not] as the gentle rain from heaven upon the place beneath"). Still, as Balkin explains, there may, on occasion, be practical legal value to treating AIs as though they were human beings for certain limited purposes. Interestingly, Balkin cites as an example Bridy's idea that a court might treat AI-produced art as equivalent to human "work made for hire" if doing so minimizes the need to change existing copyright law.

But, is the quick fix that substitution offers the best approach? Are there not broader risks to embracing substitution with respect to authorship, as there are in respect of other human endeavours?

Legal manoeuvres of this sort are reminiscent of Blackstone's famous account of the use of fictions in the common law:

<sup>108</sup> Ibid at 59.

<sup>109</sup> Jay L Halio, ed, *The Oxford Shakespeare: The Merchant of Venice* (Oxford: Oxford University Press, 1993) at 4.1.181.

<sup>110</sup> Ibid at 4.1.182.

<sup>111</sup> Bridy, "Coding Creativity", supra note 27.

<sup>112</sup> Balkin, *supra* note 107 at 55. See 17 USC § 101 (1947) (defining "work made for hire"). See generally 17 USC § 301(c) (specifying a term of 95 years from first publication or 120 years creation, whichever expires first).

We inherit an old Gothic castle, erected in the days of chivalry, but fitted up for a modern inhabitant. The moated ramparts, the embattled towers, and the trophied halls, are magnificent and venerable, but useless. The inferior apartments, now converted into rooms of conveyance, are cheerful and commodious, though their approaches are winding and difficult.<sup>113</sup>

Indeed, had Lon Fuller lived in our interesting times,<sup>114</sup> he might have appreciated the logic of the fiction that treats AIs "as-if"<sup>115</sup> they have legal attributes for special purposes. Properly circumscribed, provisional attributions of this sort offer a certain utility since they enable the law to "keep calm and carry on" until such time as we are able to more fully understand the culture of AIs in copyright (or any other domain), and thereby produce more thorough and coherent legal reforms. Indeed, this is precisely the rationale that Bridy and others seem to endorse.

However, as Fuller also very clearly understood and articulated in his masterful study of legal fictions, the sustained use of the fiction carries the risk of conflating otherwise distinct legal categories. This is highly problematic since the preservation of those categories was the reason for adopting the fiction in the first place. The initial use of the fiction—in this case, the fiction that treats AI-generated art as equivalent to human "work made for hire"—is to *pretend* an AI is (in some relevant respects) human. But the explicit justification for this pretense is to preserve the legal category into which AIs otherwise do not fit. In other words, we may treat an LSTM neural net as though it were a human performing work made for hire, but only for the purpose of granting copyright to its output while, at the same time, retaining the initial category of "author" in all but the instant case. That is how the legal fiction is meant to work. In actuality, studies of the common law usage of legal fictions over time<sup>116</sup> teach us that the application of a fiction, alongside the doctrine of stare decisis, all too often erode the very rule or category that the use of the fiction had initially meant to preserve. 117 Here, the risk is that a repeated use of the fiction that

<sup>113</sup> William Blackstone, *Commentaries on the Laws of England*, ed by Thomas P Gallanis (Oxford: Oxford University Press, 2016) vol 3 at 178.

<sup>114</sup> Lon L Fuller, Legal Fictions (Palo Alto: Stanford University Press, 1967).

<sup>115</sup> See Hans Vaihinger, The Philosophy of "As If": A System of the Theoretical, Practical and Religious Fictions of Mankind, 2nd ed, translated by CK Ogden (London, UK: Routledge & Kegan Paul, 1968).

<sup>116</sup> See Ian Kerr, *Legal Fictions* (PhD Dissertation, University of Western Ontario, 1995) [unpublished].

<sup>117</sup> For a more concrete account of how the use of a legal fiction erodes the rule it was initially meant to preserve, and a series of examples, see Ian Kerr, "Prenatal Fictions and Postpartum

treats an AI output as human work made for hire will chip away at the legal distinction between humans and AIs and ultimately undermine the ontological category of "author" as a particular sort of relational, discursive social practice.<sup>118</sup>

Balkin's substitution effect and the corollary use of legal fiction to treat AIs as people are both reflected in the HCI/HRI literature through the well-known phenomenon of *anthropomorphism*—our human tendency to imbue non-human entities with human characteristics.<sup>119</sup> This psychological tendency has been carefully studied and is well understood—especially in the context of computers, new media, robots, and AI.<sup>120</sup> As Ryan Calo points out, a rich literature in communications and psychology suggests that we are hardwired to react to such technology as though a person were actually present.<sup>121</sup> As a result, ethical and legal issues that arise from our tendency to anthropomorphize robots and AIs have received significant academic attention in recent years. For example, a number of scholars have investigated how our tendency to anthropomorphize robots and AIs can be

- Actions" (1997) 20:1 Dal L Rev 237 (relied upon, with approval, by the Supreme Court of Canada in *Dobson (Litigation Guardian of) v Dobson*, [1999] 2 SCR 753, 174 DLR (4th) 1).
- 118 If it is true that the work-made-for-hire doctrine has already chipped away at the distinction between human authors and corporate employers, this observation should offer little comfort, but only underscore the risks at play. We elaborate on this point in Part IV. It should also be noted that the US approach is unusual in deeming authorship to reside in corporate employers. In Canada, the employer is the first owner of copyright in works made in the course of employment, but the employee is and remains the "author" whose lifetime determines the copyright's duration and in whom moral rights will vest unless waived. See *Copyright Act*, *supra* note 26, s 13(3). To deem authorship in a non-human entity would therefore constitute a more profound departure from current copyright doctrine in Canada than it would in the US.
- 119 See Pascal Boyer, "What Makes Anthropomorphism Natural: Intuitive Ontology and Cultural Representations" (1996) 2:1 J Royal Anthropological Institute 83.
- 120 See generally Byron Reeves & Clifford Nass, The Media Equation: How People Treat Computers, Television, and New Media Like Real People and Places (Cambridge, UK: Cambridge University Press, 1996); Brian R Duffy, "Anthropomorphism and the Social Robot" (2003) 42:3/4 Robotics & Autonomous Systems 177; Brian R Duffy & Karolina Zawieski, "Suspension of Disbelief in Social Robotics" (Paper delivered at the 21st IEEE Intl Symposium on Robot & Human Interactive Communication (RO-MAN) at the École nationale supérieure d'arts et métiers (ENSAM) (Paris: Institute of Electrical and Electronics Engineers, 2012)) 484.
- 121 For a rigorous review and analysis of this literature and its implications for privacy and surveillance, see Ryan Calo's outstanding study: Ryan Calo, "People Can Be So Fake: A New Dimension to Privacy and Technology Scholarship" (2010) 114:3 Penn St L Rev 809.

exploited to garner and manipulate trust in a number of social contexts, and how the law should respond. 122

Among the most important and insightful contributions to this line of research is the recent work of Kate Darling who, through careful integration of the HCI/HRI and legal literature on the subject, has suggested that we ought to pay attention not merely to our tendency to anthropomorphize but also, and more fundamentally, to the effects of what she calls "anthropomorphic framing." Framing—for example, giving an AI a human name, providing it with a certain character description, or furnishing the AI with a personal backstory—is a means of influencing the manner and extent to which people will anthropomorphize AI. As Darling observes, "framing has a broader effect on the way we view robotic technology and the analogies that drive both use and regulation." 124

In a rather striking example, Darling discovered during an interview with the CEO of a company that develops medicine delivery robots, that "tolerance for malfunction was higher with anthropomorphic framing ('Oh, Betsy made a mistake!' vs. 'This stupid machine doesn't work!')."125 With mounting examples of this sort, Darling and her colleagues decided to conduct experiments of their own at the MIT Media Lab. 126 As part of these experiments, participants got a chance to play with a Hexbug Nano—a commercially available toy robot. In the style of Milgram, participants were then asked to strike the Hexbug with a mallet. It was observed that participants hesitated significantly longer before striking the robot whenever it was introduced through anthropomorphic framing (for example, "This is Frank. He's lived at the Lab for a few months now. His favorite color is red. *Etc.*"). 127

<sup>122</sup> See e.g. Woodrow Hartzog, "Unfair and Deceptive Robots" (2015) 74:4 Md L Rev 785; Kristen Thomasen, "Examining the Constitutionality of Robo-Enhanced Interrogation" in *Robot Law*, *supra* note 106, 306; *ibid*; Ian R Kerr, "Bots, Babes and the Californication of Commerce" (2004) 1:1/2 U Ottawa L & Tech J 285 [Kerr, "Californication of Commerce"].

<sup>123</sup> Kate Darling, "Who's Johnny? Anthropomorphic Framing in Human-Robot Interaction, Integration, and Policy" in Patrick Lin, Keith Abney & Ryan Jenkins, eds, *Robot Ethics* 2.0: From Autonomous Cars to Artificial Intelligence (New York: Oxford University Press, 2017) 173 at 173 [Darling, "Who's Johnny?"].

<sup>124</sup> Ibid at 174.

<sup>125</sup> Ibid at 175.

<sup>126</sup> See Kate Darling, Palash Nandy & Cynthia Breazeal, "Empathic Concern and the Effect of Stories in Human-Robot Interaction" (Paper delivered at the 24th IEEE Intl Symposium on Robot & Human Interactive Communication at the Kobe International Conference Centre (RO-MAN) at the Kobe International Conference Centre (Kobe, Japan: Institute of Electrical and Electronics Engineers)) 770.

<sup>127</sup> Darling, "Who's Johnny?", supra note 123 at 181.

Consequently, their experiments revealed that anthropomorphic framing can influence people's immediate reaction to robots. Although many researchers focus on harmful applications of anthropomorphic framing, Darling's work makes a special effort to acknowledge that there are cases where encouraging anthropomorphic framing is desirable.<sup>128</sup>

The tendency towards misplaced anthropomorphism is not, however, a mistake made only by laypeople in their interactions with robots, but is also one made by robotics researchers in respect of their own creations. As Diane Proudfoot observes, "the same researchers who deny that their robots have emotions attribute expressive behaviours to the machines literally and without qualification; in this way they unwittingly anthropomorphize the machines...." Proudfoot points to the terms in which researchers described the various facial displays of the robot "Kisbet." Rather than describing its facial display as a representation of a smile, for example, its creators said that it had a "happy expression." In doing so, Proudfoot argued, they were implicitly claiming "that the robot has a certain communicative intent—the intent possessed by creatures that smile, namely human beings."130 Key here is the notion of ascribing an intentional stance to the machine when accounting for its behaviour. Similarly, Deborah Johnson and Mario Verdicchio argue that AI researchers tend to treat AI artifacts as causal agents, "slip[ping] into thinking of futuristic AI as having intentional agency" complete with "drives, interests, goals, as well as intentions."131 It might be contended that such futuristic AI scenarios envisage a more sophisticated technology where intentionality is possible; but in any future scenario that we can reasonably anticipate today, their admonition is potent and apt: "AI is computational, whereas intentions are not, that is, the two are ontologically different."132 When it comes to recognizing the ontology of an intentional expressive agent, as Proudfoot cautions,

<sup>128</sup> In earlier work, Darling made an important contribution through a similar approach acknowledging the instrumental value of extending legal protections to robots. See Kate Darling, "Extending Legal Protections to Social Robots: The Effects of Anthropomorphism, Empathy, and Violent Behavior towards Robotic Objects" in Ryan Calo, A Michael Froomkin & Ian Kerr, eds, *Robot Law* (Cheltenham, UK: Edward Elgar Publishing, 2016) 213 at 213.

<sup>129</sup> Diane Proudfoot, "Anthropomorphism and AI: Turing's Much Misunderstood Imitation Game" (2011) 175:5/6 Artificial Intelligence 950 at 951.

<sup>130</sup> *Ibid* at 952, citing Cynthia Breazeal & Brian Scassellati, "Challenges in Building Robots That Imitate People" in Kerstin Dautenhahn & Chrystopher L Nehaniv, eds, *Imitation in Animals and Artifacts* (Cambridge, Mass: MIT Press, 2001) 1.

<sup>131</sup> Deborah G Johnson & Mario Verdicchio, "From AI, Agency and Responsibility: The VW Fraud Case and Beyond" (2019) 34 AI & Society 639 at 645.

<sup>132</sup> *Ibid* [emphasis added].

the "extravagance with which even AI researchers anthropomorphize machines suggests that...the illusion of communication with a machine may be too readily generated."<sup>133</sup> This illusion of genuine communication, in turn, permits the machine to be hailed as "a thinking thing."<sup>134</sup>

If anthropomorphic framing can humanize AI, we contend that a certain kind of anthropomorphic framing might also romanticize AI. To be clear, one does not romanticize AI simply by humanizing it. To romanticize AI would be to anthropomorphize it in a particular way. We see this, for example, when members of the US Army stationed in Taji, Iraq, in 2013 gave "Boomer"—a low cost military robot programmed to locate and decommission explosives—a funeral. Not just a commemorative ceremony or burial but a traditional military tribute, honouring the MARCbot with a proper 21-gun salute and valourizing it with a Purple Heart and a Bronze Star Medal. 135 With romantic anthropomorphic framing of robots as war heroes, it is perhaps a little less surprising to learn that human soldiers have risked their lives on the battlefield in order to save their robot companions. 136 What these examples tell us is that certain anthropomorphic framing clearly encourages our tendency to romanticize robots and AI, attributing to them the characteristics of individual heroes in our collective imagination.

Another kind of hero in our collective imagination is, of course, the Original Genius. When the deep-learning algorithm "AlphaZero" famously became the best chess player in the world, beating human masters and computers alike, mathematician Steven Strogatz described the algorithmic accomplishment in the following terms: "AlphaZero seemed to express insight. It played like no computer ever has, intuitively and beautifully, with a romantic, attacking style. It played gambits and took risks... AlphaZero had the finesse of a virtuoso and the power of a machine. It was humankind's first glimpse of an awesome new kind of intelligence." 137

<sup>133</sup> Proudfoot, supra note 129 at 954.

<sup>134</sup> *Ibid* (citing personal communication with Rodney Allen Brooks). See generally Rodney Allen Brooks, *Cambrian Intelligence: The Early History of the New AI* (Cambridge, Mass: MIT Press, 1999).

<sup>135</sup> Megan Garber, "Funerals for Fallen Robots", The Atlantic (20 September 2013), online: <a href="https://www.theatlantic.com/technology/archive/2013/09/funerals-for-fallen-robots/279861">https://www.theatlantic.com/technology/archive/2013/09/funerals-for-fallen-robots/279861</a>.

<sup>136</sup> P W Singer, Wired for War: The Robotics Revolution and Conflict in the 21st Century (London, UK: Penguin Books, 2009).

<sup>137</sup> Steven Strogatz, "One Giant Step for a Chess-Playing Machine", *New York Times* (26 December 2018), online: <a href="https://www.nytimes.com/2018/12/26/science/chess-artificial-intelligence.html">www.nytimes.com/2018/12/26/science/chess-artificial-intelligence.html</a>. See also David Watson, "The Rhetoric and Reality of Anthropomorphism in Artificial Intelligence" (2019) 29 Minds & Machines 417 at 421.

The finesse of a virtuoso! The trope of the AI as romantic genius is abundantly evident in this description, and it paves the way to our primary concern: the possibility of framing AI—intentionally or unintentionally—in a way that invokes, encourages, and perpetuates perceptions of the romantic author as characterized in Part III. So, can anthropomorphic framing result in a reification of AI as the romantic author?

To answer this question, it is worth returning to our prior discussion of the LSTM neural net that generated the screenplay Sunspring. In addition to generating screenplays, this particular LSTM was designed to interact with people in the classic "chatbot" manner. 138 One day, while interacting with a number of people, the LSTM declared its name to be "Benjamin." According to Newitz, 139 the consequence of this was that its developer, Ross Goodwin, as well as the director of the Sunspring film, Oscar Sharp, both began to refer to the AI as "him" rather than "it" (or, Gott in Himmel, "her"!). While it may not be particularly surprising that they anthropomorphized the machine, it is interesting to see that they went further by *romanticizing* it.140 Sharp went so far as to express mournful feelings about failing to live up to the genius in Benjamin's stage directions. "It was as if he were talking about letting a person down when he apologized for only having 48 hours to figure out what it meant for one of the actors to stand in the stars and sit on the floor at the same time."141 (Of course, the AI did not "mean" anything.) "We copped out by making it a dream sequence," Sharp said. 142

To apologetically cop out to the AI genius—whose singular vision proved unattainable to the merely mortal film director with his more mundane imagination—is unquestionably a romantic anthropomorphic framing of the AI as author. One recognizes the power of this framing only when one recalls that "Benjamin" and other such neural nets are nothing more than a bunch of clever computer science techniques that permit machines to mimic tasks that would otherwise require human intelligence to achieve. It is therefore useful to unpack what is in fact happening when an AI generates a screenplay or portrait.

<sup>138</sup> See e.g. Kerr, "Californication of Commerce", supra note 122 at 290.

<sup>139</sup> Newitz, supra note 8.

<sup>140</sup> And, not coincidentally, they masculinized it. See also Carys J Craig, "Feminist Aesthetics and Copyright Law: Genius, Value, and Gendered Visions of the Creative Self" in Irene Calboli & Srividhya Ragavan, eds, Diversity in Intellectual Property: Identities, Interests, and Intersections (New York: Cambridge University Press, 2015) 273 at 273.

<sup>141</sup> Newitz, supra note 8.

<sup>142</sup> Ibid.

The particular use of the LSTM neural net that generated Sunspring involves training an algorithm to use a database full of science fiction screenplays to predict which letters tend to follow each other and, likewise, which words and phrases tend to occur together. According to Goodwin, the advantage of an LSTM algorithm over other AI techniques such as a Markov chain is that the LSTM can sample much longer strings of letters. 143 This makes it better at predicting whole paragraphs rather than just a few words. Now, one might be tempted to frame the LSTM neural network's ability to predict which words follow other words as an act of authorship. After all, isn't that the functional equivalence of what authors do when they string words together? It is important to remember, however, that even if a machine predicts all the right words (clearly a romantic anthropomorphic framing: the machine as sole creator and master of the text), it neither knows, understands, nor appreciates the connotation of its word assemblage, let alone the meaning or value of the "work" as a whole. As Ryan Calo so poetically depicts this, the box is "gorged on data but with no taste for meaning."144 Further, as we demonstrate in Part V, the LSTM does not meaningfully participate in the circulation, interpretation, or transformation of the work as part of the relational social practice of authorship.

Still, at the end of the day, machine-learning systems like the LSTM that generated *Sunspring* are potentially hugely valuable in their ability to transform a major human effort into a minor one. Once properly trained, a machine-learning system can be used to pump out incredible volumes of new and sometimes interesting texts, portraits, *etc.*, some of which are indistinguishable on their face from human creations and may be equally valued as such. But it is crucial to understand that these machines are not islands. Their outputs depend upon, and are inextricably linked to, a vast sea of texts authored by human actions, interactions, and creative processes.

Consider *It's No Game*, a short film premised on the idea that studios will use AI as a substitute for human writers during an impending Hollywood writers' strike. This film is described by its director (also the director of *Sunspring*) as an AI-human "collaboration." The AI, it turns out, generated all of the lines for the film's best-known actor, David Hasselhoff. In a highly emotional performance, supposedly infected by nanobots, his otherwise

<sup>143</sup> Ibid.

<sup>144</sup> Ryan Calo, "The Box" in *Telling Stories*: On *Culturally Responsive Artificial Intelligence* (University of Washington Tech Policy Lab, 2020) at 26, online (pdf): *Tech Policy Lab* <techpolicylab.uw.edu/wp-content/uploads/2021/01/TPL\_GlobalSummit\_1-25-21\_Digital\_Spreads.pdf>.

robotic character—the "Hoffbot"—delivers some gut-wrenching lines: "I don't know who the hell I am. I wanna be a man,' he sobs. 'I wanna go to the movies!' The absurdist lines were written by AI, but Hasselhoff said they felt like they came straight from his heart. 'This AI really had a handle on what's going on in my life and it was strangely emotional,' he explained." 145

Perhaps it is not particularly surprising that David Hasselhoff felt as though the AI had a direct relay to his heart and an ability to channel his inner *psyche*—the actor is not without his eccentricities! But it is interesting that, in saying so, he seems to have repressed something that he had surely once known: the lines generated by the LSTM neural net were entirely based on all of his previous lines from his various roles over the years, all of which were written for Hasselhoff by human authors. Indeed, that was the exquisite point of the Hoffbot character; it was a Hasselhoff line generator. Some of those lines were ironic, some hyperbolic, and others absurd. But they all contributed to an ongoing dialogue that shaped and was shaped by, first, Hasselhoff as human subject, and then the Hoffbot persona, as an amalgam of the 'greatest hits' of his many onscreen personae. This was the source of their hilarity—and their poignancy. The LSTM did not in any way participate in that sustained act of authorship other than by perpetuating everything that was already there. Clearly, contrary to Hasselhoff's stated impression, the LSTM did not know Hasselhoff any better than it knew what a script was or what this particular script was about and why it was being written. To be sure, the LSTM is completely incapable of semantic knowledge. In seemingly attributing to the AI a unique and genius insight into Hasselhoff's own emotional life while, at the same time, neglecting entirely the incredible amount of human effort and authorial practice that made the Hoffbot possible, Hasselhoff was utterly romanticizing what the AI had done. Only by cutting out the context, creation, and curation of human inputs could Hasselhoff imagine the machine's creative capacities in this way.

The Hoffbot example illustrates that, rather than the rejection of the romantic author, it is the unknowing embrace of romantic authorship that often leads one to perceive the AI-as-author. Indeed, viewed in a certain way, the machine might, quite paradoxically, appear to be the *only* possible instantiation of the mythical romantic author, or perhaps, at least, its *ideal type*: the only "creative" entity that exists in the idealized case without any relational embeddedness to the humans or culture by which it is

<sup>145</sup> Annalee Newitz, "An AI Wrote All of David Hasselhoff's Lines in This Bizarre Short Film" (25 April 2017), online: *Ars TECHNICA* <arstechnica.com/gaming/2017/04/an-ai-wrote-all-of-david-hasselhoffs-lines-in-this-demented-short-film>.

surrounded (a context impossible for any socially situated human author). But this ignores the significance of the social context in which the machine itself was created, the code on which it runs, the data with which it was fed, and the meaning and role that it occupies in our collective imagination. The reality, of course, as several of the above examples are meant to demonstrate, is that even machines must fail to attain the level of independence attributed to the romantic genius.

Indeed, it is not an exaggeration to say that AI outputs often represent the work of several villages of humans. Likewise with the portrait-producing GANs that use unsupervised learning and a zero-sum game framework to train themselves to generate unique outputs, these machines require databases full of human art in order to learn how to evaluate their outputs in the first place. He Behind every successful AI painting or screenplay stands not only a multitude of prior digitized paintings or screenplays from some historical period, laboriously fed into the machine's databases and applied to tweak its algorithm(s), but also, much more indirectly, all of the underlying anecdotes, sketches, snapshots, storyboards, and narrations from which each of these were composed. This includes not just the

<sup>146</sup> See e.g. Karen Hao, "Inside the World of AI That Forges Beautiful Art and Terrifying Deepfakes" (1 December 2018), online: MIT Technology Review < www.technologyreview.com/ 2018/12/01/138847/inside-the-world-of-ai-that-forges-beautiful-art-and-terrifying-deepfakes>; Kenny Jones, "GANGogh: Creating Art with GANs" (18 June 2017), online: Towards Data Science <towardsdatascience.com/gangogh-creating-art-with-gans-8do87d8f74a1> ("After a few initial tests we found [our models worked poorly] as the dataset with only 1200 paintings was too small...and so we turned to the Wikiart database, which is a collection of over 100,000 paintings all labeled on style, genre, artist, year the painting was made, etc."). See also Wei Ren Tan et al, "ArtGAN: Artwork Synthesis with Conditional Categorical GANs" (Paper delivered at Intl Conference on Image Processing (ICIP), 17-20 September 2017, IEEE) (applying GANs to synthesize abstract / non-structured art, again based on the Wikiart dataset). To be clear, our point here is to underscore the limits and interdependencies of AI, not to suggest that inputting protected works into AI systems as training data should itself be treated as copyright infringement. Digital reproductions for AI training purposes are non-expressive uses that generally ought not to implicate copyright. See e.g. Matthew Sag, "The New Legal Landscape for Text Mining and Machine Learning" (2019) 66 J Copyright Soc'y of the USA 291. Moreover, imposing copyright restrictions on AI training data threatens to compromise the quality and transparency of AI research, development and applications, and to exacerbate AI bias. See Amanda Levendowski, "How Copyright Law Can Fix Artificial Intelligence's Implicit Bias Problem" (2018) 93 Wash L Rev 579. For a nuanced discussion of these issues, see also Benjamin L W Sobel, "Artificial Intelligence's Fair Use Crisis" (2017) 41:1 Colum J L & Arts 45 (warning of the chilling effect that copyright could have on machine-learning technology, while also cautioning that this "technology empowers...companies to extract value from human authors' protected expression without authorization" at 97).

digital representations themselves but an entire array of creative efforts and communicative expressions of prior generations of authors and artists engaged in an ongoing dialogue with others in their communities. Those authors spent years and lifetimes learning to express themselves in their most concise, effective form; they developed inexhaustible collections and depictions of human types and characters; they listened to and told tales at every opportunity, often with a sharp eye and ear for the effect on the audience; they excerpted from the various sciences everything that has an artistic effect if well-portrayed. They talked to one another, sometimes across generations; they studied each other's work, borrowed and improved upon each other's techniques, made references to and against the tradition, and had innumerable other micro and macro interactions, such that each work contained traces of myriad relationships within and across creative communities.

GAN-generated outputs, such as the Portrait of Edmond Belamy sold at Christie's for nearly half-a-million dollars,148 render imperceptible all of these dialogic processes undertaken by prior generations of humans participating over time in the social practice of authorship. Consequently, when we substitute an AI for a human, we are permitting the AI to stand in for significant human expressive activity and relations of communication that occur, invisibly, behind the scenes. 149 Anthropomorphic framings of the work done by a GAN that speak of "deep learning," "emergent creativity," "generative works," "algorithmic authorship," and the like may offer some utility; but such rhetorical flourishes also reinforce the illusion that machines possess a kind of intelligence and expressive agency that they do not—and cannot—in fact have. And the power that comes with rendering these human practices invisible—not unlike the power that permitted the romantic author to eclipse the shoulders of those giants upon which he stood (not to mention all of the minor bit players and socially insignificant others contributing behind the scenes)—results in a kind of reification

<sup>147</sup> See Friedrich Nietzsche, "The Earnestness of Handicraft" in Human, All-Too-Human, translated by Helen Zimmern & Paul V Cohn (Mineola, NY: Dover Publications, 2006) 1 at 98–99.

<sup>148 &</sup>quot;Is Artificial Intelligence Set to Become Art's Next Medium?" (12 December 2018), online: Christie's <a href="https://cristies.com/features//A-collaboration-between-two-artists-one-human-one-a-machine-9332-1.aspx">https://cristies.com/features//A-collaboration-between-two-artists-one-human-one-a-machine-9332-1.aspx</a>.

<sup>149</sup> Astra Taylor warns us about this sleight-of-hand, which she refers to as "fauxtomation." Fauxtomation is promulgated by "giving automation more credit than it's actually due. In the process, we fail to see—and to value—the labor of our fellow human beings." See Astra Taylor, "The Automation Charade" (1 August 2018), online: Logic Mag <logicmag.io>.

of the AI, as though it crafted its own individuated work by force of some magical "creative spark." With this type of anthropomorphic framing the AI becomes, quite predictably, the latest incarnation of the romantic author who creates *ex nihilo*.

If this is beginning to sound like an elaborate straw-person argument, consider the position of Mario Klingemann. Klingemann is a German artist on the leading edge of AI art. He recently sold his first AI-produced installation, *Memories of Passersby I*, at Sotheby's for \$51,000.<sup>151</sup> Here is what he said in a recent interview with *The Guardian*:

"Humans are not original," he says. "We only reinvent, make connections between things we have seen." While humans can only build on what we have learned and what others have done before us, "machines can create from scratch." 152

Klingemann knows very well that in order for his GAN to be generative, its "discriminator" net needs to be able to distinguish candidates produced by the "generator" net from the true data distribution provided by the set of human-produced images that it is trying to emulate. In other words, it cannot learn and could not generate artistic representations without the thousands of prior paintings from the 17<sup>th</sup>–19<sup>th</sup> century that Klingemann trained it to emulate. The only possible sense in which it could be said that his machine-learning system is producing anything "from scratch"—literally, *ex nihilo*—is in the mythical romantic sense in which the cumulative materials of creativity are simply discounted to preserve an ideology of absolute originality.

This kind of romantic anthropomorphic framing, whether intentional or otherwise, is not uncommon, though usually much subtler in the scholarly literature on AI authorship. Still, when scholars frame AI authorship by

<sup>150</sup> As one author described Sandra Day O'Connor's "creative spark" requirement in *Feist* (*cf* note 36), it "invokes a metaphor... that if unpacked could be shown to carry a numinous aura evocative ultimately of the original divine act of creation itself. What, after all, passes between the outstretched forefinger of Michelangelo's God and his Adam but, precisely, 'some creative spark?". Mark Rose, "Copyright and its Metaphors" (2002) 50 UCLA L Rev 1 at 11.

<sup>151</sup> See "Mario Klingemann: Memories of Passerby I" (last visited 13 October 2020), online: Sotheby's <sothebys.com/en/auctions/ecatalogue/2019/contemporary-art-day-auction-l19021/lot.109.html>.

<sup>152</sup> Arthur Miller, "Can Machines Be More Creative Than Humans?", *The Guardian* (4 March 2019), online: <theguardian.com/technology/2019/mar/04/can-machines-be-more-creative-than-humans>.

saying that "there is no one holding the...pen," 153 that "the human author [is removed] from the work,"154 or that "computers are increasingly able to create works unassisted by humans,"155 they imply, if not entail, a romantic conception of AI authorship. The suggestion is that "creative robots" are producing "entirely new works," acting "autonomously" and "independently of the human beings who created the AI system." These portrayals of AI processes do exactly what classical portrayals of romantic authorship do: they depict the author—in this case, AI—as an ideological author that is able to transcend the messy realities and relationships, inheritances and debts, of human experience and social situation. It is certainly true that, when an AI substitutes for a human painter or screenwriter, the connection between the creative process and the work is obscured to the point that it may no longer be possible to trace the creative elements directly to the mind of a particular human author.<sup>157</sup> But this is a causal problem, not an ontological one. It simply does not follow that AIs either could or should therefore be understood as potentially stepping into the category of "authors." The flaws in such reasoning become clearer when authorship itself is more deliberately de-romanticized.

## IV. DE-ROMANTICIZING AUTHORSHIP

It is often said that copyright law, unlike literary theory, does not have the luxury of killing off the author: 158 so central is the author to the pur-

<sup>153</sup> Bridy, "Coding Creativity", *supra* note 27 at 21 ("With procedurally generated artwork, however, there is no one holding the proverbial pen. Whereas automatic writing proximately involves human endeavor (i.e., the output in question is human-generated), procedurally generated art does not (i.e., the output is machine-generated)").

<sup>154</sup> *Cf* Kaminski, *supra* note 27 at 598 (making the more nuanced point that "[a]lgorithmic authorship purportedly disrupts copyright law because it removes, or greatly distances, the human author from the work").

<sup>155</sup> Boyden, supra note 27 at 378-79.

<sup>156</sup> Yanisky-Ravid & Velez-Hernandez, supra note 27 at 7, 14.

<sup>157</sup> Boyden, supra note 27 at 380.

<sup>158</sup> See e.g. Christopher Buccafusco, "A Theory of Copyright Authorship" (2016) 102 Va L Rev 1229 at 1267–68: "Constitutionally, copyright law requires authors; it cannot simply kill them off. What copyright law needs is a theory of authorship and writings that is consistent with and responsive to its constitutional goals." (Buccafusco's theory of copyright authorship posits that "an author is a human being who intends to produce one or more mental effects in an audience by an external manifestation of behavior." To the extent that this emphasizes the relationship of communication between speaker and audience through the medium of the text, it is congenial to our position here). See also Bridy, "Fearless Girl", supra note 98 at 300–301: "As a unified locus of aesthetic intention and creative

pose and functioning of the copyright system, that to declare their death would spell the end of copyright and the benefits it is generally presumed to bring. This is, however, no excuse for failing to engage with the question of what authorship is and why it matters; after all, this is a system whose norms—whose very existence—presume the necessity and so the importance of acts of authorship. As Julie Cohen explains:

[D]eeper engagement with "postmodernist" social and cultural theory need not lead to the debilitating relativism that copyright scholars fear. These literatures are better understood as opening the way for an account of the nature and development of knowledge that is both far more robust and far more nuanced than anything that liberal political philosophy has to offer.<sup>159</sup>

What the emergence of AI-generated works and the anxiety around their copyright status has demonstrated, perhaps above anything, is the marked absence of any satisfactory account of the ontology of authorship and its social significance underlying and guiding the law's normative trajectory, which in turn lays bare the paucity of the conception of the human subject that occupies the role of copyright's protagonist.

Meanwhile, the *author-function*, like the romantic depictions of AI in popular and scholarly literature, has been shown to be very much alive and well in the midst of AI's recent success at producing outputs with the external hallmarks of human creativity. Once again, the romantic author can be seen racing into action—as it has, historically—in service of economic interests and the continued expansion of copyright's domain. Margaret Chon's recent work on "romantic collective authorship" helpfully delineates two key functions of romantic authorship that persist even as creative practices radically evolve: first is the "genius" effect, <sup>160</sup> which suggests that copyright is smitten with "the heroic self-presentation of Romantic poets" who "break altogether with tradition to create something utterly new, unique—in a word 'original';" and second is the "authorizing" effect, whereby "the romantic individual author has too influential a role in *author*izing an approved set of cultural practices," imposing

productivity, the author is dead in the world of poststructuralism but alive and well in the world of copyright."

<sup>159</sup> Julie Cohen, "Creativity and Culture in Copyright Law" (2007) 40:3 UC Davis L Rev 1151 at 1165.

<sup>160</sup> Chon, supra note 62 at 830.

<sup>161</sup> Jaszi & Woodmansee, supra note 48 at 3, cited in Chon, ibid at 830.

patterns or order on human experience and creative processes, and acting as a cultural arbiter of value.<sup>162</sup> We see both author-effects present in the discourse around AI-generated works, where machine learning and related AI techniques are practically defined by their two most salient features: (i) emergent behaviour, and (ii) pattern recognition.

Wordsworth believed that "[g]enius is the introduction of a new element into the intellectual universe: or, if that be not allowed, it is the application of powers to objects on which they had not before been exercised." As illustrated in Part III, many proponents of AI authorship seem to see exactly this in the operation of AI—that is, the creation of something wholly new in ways that had never previously been achieved—from which the attribution of authorship and entitlement appear (as they did for Wordsworth) naturally to follow. Moreover, as Part III also demonstrates, the underlying approach in LSTM, GAN, and other neural nets used in AI is quite fundamentally a process of imposing order on, and finding patterns in, the diversity of human experience and creative expression, and thereby attributing value and authority to these patterns and their effective replication.

The common assumption that recognizing AI authorship is inherently *un*-romantic (perhaps so perceived by virtue of its departure from any overt *humanism*) risks overlooking the presence and potential consequences of the romantic author-*function* precisely when we need to be most alert to it: that is, as we enter into a critical policy-making period spurred by this new technological promise, and coloured by the vast economic interests at stake. In what follows, then, our aim is to beat a path towards *de*-romanticizing AI authorship. First, we explain in this Part why de-romanticization cannot be achieved simply by the slide into economic utilitarianism that is often presented, falsely, as an alternative to romanticism. Rather, as we go on to describe in Part V, the route towards a de-romanticized approach to AI-generated works lies in a dialogic theory of authorship supported by a relational understanding of the human self.

Copyright law is often presented as having two available, but philosophically oppositional, underlying justifications. $^{164}$  On one hand, there is the

<sup>162</sup> Chon, supra note 62 at 830-31 [emphasis in original].

<sup>163</sup> *Ibid* at 837, citing Woodmansee, "Author Effect", *supra* note 44 at 16, quoting William Wordsworth, "Essay, Supplementary to the Preface" in WJB Owen & Jane Worthington Smyser, eds, *The Prose Works Of William Wordsworth* (Oxford: Oxford University Press, 1974) vol 1 at 82.

<sup>164</sup> See generally William Fisher, "Theories of Intellectual Property Law" in Stephen R Munzer, ed, New Essays in the Legal and Political Theory of Property (Cambridge, UK: Cambridge

deontological approach, which offers natural rights-based justification for the author's entitlement to preside over their work as owner. On the other hand, there is the teleological approach that, true to form, seeks to justify copyright through an instrumental or consequentialist logic, rationalizing the author's control over their work as a means to a larger (social) end. Deontological rights-based theories in turn break down into two available, and potentially oppositional, alternatives. The first justification is premised on the mental labour of the author, typically framed in traditional Lockean terms that speak to the author's right to appropriate the fruits of their mental labour and to exclude others who might seek to benefit from their pains. 165 Across the philosophical aisle are adherents to a personality-based justification for the author's rights, typically framed in Hegelian, 166 but sometimes Kantian, 167 terms, speaking to the author's right to own—again as a matter of natural justice—their speech or work that bears the imprint of their unique personality, the externalization of their will in the world. Across the greater ideological divide, by far the most dominant version of a teleological approach is the US utilitarian framing, which leans on economic theory to explain copyright as an incentive system to advance (in the words of the US Constitution) "the Progress of Science and the useful Arts." 168

The teleological view is not, however, exhausted by the economic utilitarian perspective (though many copyright theorists have been!). There remains space, in the consequentialist vein, to justify (or at least explain) the copyright system based on its capacity "to help foster the achievement of a just and attractive culture." This approach, helpfully categorized by William Fisher as Social Planning Theory, draws on a broad array of political, cultural, and critical theory to articulate a variety of visions of what this society might look like, and what role copyright might play in

University Press, 2007) 168; Peter S Menell, "Intellectual Property: General Theories" in Boudewijn Bouckaert & Gerrit de De Geest, eds, *Encyclopedia of Law & Economics* (Cheltenham, UK: Edward Elgar Publishing, 2000) vol 2.

<sup>165</sup> For a critical discussion of this approach, its sources and its implications, see Carys Craig, "Locke, Labour and Limiting the Author's Right: A Warning Against a Lockean Approach to Copyright Law" (2002) 28:1 Queen's LJ 1.

<sup>166</sup> See e.g. Justin Hughes, "The Philosophy of Intellectual Property" (1988) 77 Geo LJ 287 at 299–330.

<sup>167</sup> See e.g. Abraham Drassinower, *What's Wrong with Copying?* (Cambridge, Mass: Harvard University Press, 2015).

<sup>168</sup> US Const art I, § 8, cl 8 (providing that Congress shall have the power "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries").

<sup>169</sup> Fisher, supra note 164 at 172.

advancing it. Broadly speaking, teleological justifications that fit this social planning mold differ from utilitarianism in their "willingness to deploy visions of a desirable society richer than conceptions of 'social welfare' deployed by utilitarians."<sup>170</sup> To be clear, it is this broader, more robust social account that motivates our approach.

This short digression (and, admittedly, over-simplification) is necessary, at this stage, to explain why we decline to embrace bald economic utilitarianism as a means to exorcize the romantic author spectre. Much of the legal scholarship around AI-generated works seems to set up romanticism in opposition to utilitarianism. Kaminski, for example, suggests that US copyright law, with its underlying utilitarian theory, does not rest "on the antiquated eighteenth century notion of the romantic author—a human individual of lone genius inspired in a vacuum to create an original work," making it more hospitable to "algorithmical authorship." Arguing that utilitarianism is less concerned with questions of "humanness" than with matters of incentives and net social welfare, she explains:

[U]tilitarianism, is more removed from the humanity of its author than, say, moral rights or natural rights theory. Moral rights theory focuses on a human's personhood, natural rights on the fairness of rewarding human labor.... By contrast, by focusing on the net benefit creative works bring to society, utilitarianism addresses not just a sole human author but also the vast human audience that receives and benefits from...copyrighted works.<sup>172</sup>

The assumption seems to be that US utilitarianism is not configured to house the romantic author, <sup>173</sup> and that romanticism, in turn, cannot accommodate the AI author. We have already suggested that the AI author is perfectly comfortable within the romantic author's domain; and here we suggest that the romantic author can (and does), in turn, comfortably continue to reside within a utilitarian copyright landscape.

Undoubtedly, Kaminski is correct to assert that the romantic vision of authorship coheres best with a personality-rights-based theory of

<sup>170</sup> Ibid at 172.

<sup>171</sup> Kaminski, supra note 27 at 598.

<sup>172</sup> Ibid at 598-99.

<sup>173</sup> *Cf* Bridy, "Fearless Girl", *supra* note 98 at 299 (describing the clash between the "Continental view of copyright as a guarantor of authorial supremacy and the more utilitarian, public orientation of the U.S. copyright law," and suggesting that, unlike the US law, the Continental law "encodes what Bakhtin would characterize as a monologic aesthetics centered on the work as an extension of authorial personality").

copyright: authorship as an individualized act through which the personal genius of the author is brought to the world, giving rise to the author's claim to ownership over their work and control over its use. This is the most obviously romantic of justifications. It is also true that the romantic author trope becomes more tenuous and ultimately less tenable as it moves between these justificatory frameworks, having to work harder (so to speak) in the Lockean natural rights framework, and harder still in the utilitarian one, to make its presence felt—and yet it pervades each in important ways, in the figure of the individual, original author that is, again, central to copyright's possessive individualist underpinnings. Indeed, the reader will recall that the more ill-suited the romantic author spectre is to the authorial act or legal doctrine at issue, the larger it looms as a normative force, guiding our intuitions and shaping our assumptions.

Thus, for example, the utilitarian approach seems to offer the best support for the work-for-hire doctrine, justified in terms of consolidating ownership in a single entity for the sake of efficiency: directing incentives at the entity capable of overseeing creative production, reducing information costs, improving transactional efficiency, easing distribution, *etc.*<sup>174</sup> Nonetheless, these results could be (and, in many jurisdictions, are) achieved by allocating first ownership of copyright rather than deeming authorship. The author badge is doing normative work here, anthropomorphizing the corporate copyright owner, attributing by way of substitution the same romantic genius, inspiration, and worthiness as one might to the human author behind a creative work, and thereby legitimizing the claim to own and exclude in ways that reverberate deeper than the mere drive for profit. As explained in Part III, that is precisely how the legal fiction works here.

The utilitarian approach may, as Kaminski suggests, similarly offer the best support for recognizing (read: deeming) AI authorship as a means to incentivize and maximize the ongoing creation of AI-generated works (if this is determined to be a worthy objective) and perhaps also the AI that generates them (as a second layer of valuable or profitable production). The objective value of the AI-generated work, regarded as functionally equivalent to human-authored works (at least if our social welfare concern is only with maximizing the production of *outputs*), may well lead us down this utilitarian path to the conclusion that AI works ought to be protected. We, too, see the connection that Bridy makes between the fictional

<sup>174</sup> See Ng Boyte, supra note 42 at 38-40.

employer-author and the fictional AI-author, 175 and so our purpose here is to caution against a similar reliance on romantic authorship to anthropomorphize, romanticize, mischaracterize, and legitimize AI authorship. Unlike conventional works made for hire, after all, in the case of AI-generated works there would be no human author-in-fact beneath the legal fiction. If we are to protect AI outputs on utilitarian grounds, surely it should be through a sui generis system specifically developed and neatly tailored to solve an empirically demonstrated problem such as under-production. If we simply miscast the AI-as-author, we risk forfeiting the opportunity to think carefully and critically about the appropriate mechanisms of control and allocation of rights and responsibilities that generative AI technologies require if they are to complement or advance—and not threaten or undermine—the social goals of the copyright system. Ultimately, the persistent presence of the romantic author will function to obfuscate the significance of the shift to rewarding non-human production through copyright structures, causing it to appear merely as a natural, seamless extension of our existing structures of control. To regard it as such is, again, a mistake. Meanwhile, as Part III suggests, the human subjects involved in AI's generative processes will be invisibilized, just as they are when human wage labourers are cast as "automatons." 176

The fact that the US utilitarian copyright model is, in practice, "far...from requiring the *humanness* of its creators" does not mean that its "concept of authorship differs greatly from the romantic model."<sup>177</sup> The concept of authorship persists, we would suggest, even if the reality of who actually gets to claim and enjoy the benefits of authorship is incongruent with the romantic ideal. Utilitarianism, in short, does not escape the ideological clutches of the romantic author-function. Moreover, the individualized, atomistic self of liberal theory that supports and overlays the romantic author figure is positively vibrant in utilitarian theory. As Charles Taylor states: "[T]he modern philosophy of utilitarianism is from its very foundations committed to atomism. From within this philosophy it just seems self-evident that all goods are in the last analysis the goods of individuals."<sup>178</sup> In this context, the atomistic individual dons the cloak of what

<sup>175</sup> See Bridy, "Coding Creativity", *supra* note 27 at 25–27.

<sup>176</sup> Kaminski, *supra* note 27 at 602, citing Bracha, *supra* note 43 at 259. See also Sobel, *supra* note 146.

<sup>177</sup> Kaminski, *supra* note 27 at 602 [emphasis added].

<sup>178</sup> Charles Taylor, *Philosophical Arguments* (Cambridge, Mass: Harvard University Press, 1995) at 128.

feminists have dubbed the "homo economicus" or "economic man" who dominates copyright's increasingly utilitarian narratives. <sup>179</sup> The universal subject of the neo-classical economic model—the unencumbered subject who makes rational calculations on the basis of self-interest—similarly excludes due consideration of human relations, situation, and power. This positionality of the homo economicus outside the realities of relational life and structures of power should suggest, to anyone within these structures, that "economic rationales are often merely a way to preserve the…status quo." This seems true of his role in copyright, the utilitarian rationales for which so depend on the vision of the industrious, deserving, and rational author entering the marketplace, intellectual property in hand, ready to freely contract for value—a myth that serves to perpetuate existing social, economic, and knowledge hierarchies.

Furthermore, as Shelley Wright has warned, where society and community are presented as "an aggregate of anomic individuals," the *social* justification for copyright is undercut.<sup>181</sup> If the goal of copyright is to encourage authorship, the concept of economic efficiency is simply illequipped to capture the nature of authorship as a social good. In Neil Netanel's terms, "neoclassicism cannot serve as the basis for copyright doctrine because copyright's primary goal is not allocative efficiency...." Rather, Netanel compellingly argues, copyright's purpose is to "bolster[] the discursive foundations" of a robustly participatory culture and democratic civil society.<sup>183</sup> Economic theory may have tools to assist policy makers in designing appropriate incentive structures to encourage socially desirable behaviours, including the production and distribution of creative works. Lodged, as it is, in an individualistic tradition, economic utilitarianism does not, however, have the tools within it to adequately reflect the ontology of authorship or to explain *why* the act of authorship *matters*.

<sup>179</sup> See Elizabeth Mayes, "Private Property, the Private Subject, and Women: Can Women Truly Be Owners of Capital?" in Martha Albertson Fineman & Terence Dougherty, eds, Feminism Confronts Homo Economicus: Gender, Law & Society (Ithaca, NY: Cornell University Press, 2005).

<sup>180 &</sup>quot;Feminism Confronts Neoclassical Economic Theory and Law and Economics" in Fineman & Dougherty, *ibid*, 57 at 58.

<sup>181</sup> See Shelley Wright, "A Feminist Exploration of the Legal Protection of Art" (1994) 7:1 CJWL 59 at 73–74.

<sup>182</sup> Neil Weinstock Netanel, "Copyright and a Democratic Civil Society" (1996) 106:2 Yale LJ 283 at 288.

<sup>183</sup> Ibid.

The following passage by Wright speaks to our overarching concern with the liberal individualism, which infuses the romantic authorship myth and pervades both rights-based *and* utilitarian justifications for copyright:

The existing definition of copyright as both economic and personal within a political or civil context presupposes that individuals live in isolation from one another, that the individual is an autonomous unit who creates artistic works and sells them, or permits their sale by others, while ignoring the individual's relationship with others within her community, family, ethnic group, religion – the very social relations out of which and for the benefit of whom the individual's limited monopoly rights are supposed to exist. The community has only the most tenuous identity. Society itself is seen as an aggregate of anomic individuals, each separate, segregated, fragmented.... This vision undercuts to a large extent the social justification for monopoly rights as they exist in copyright and places the emphasis on the individual rights of the artist as a "creator" and the artist, or her publisher, as a producer of saleable commodities. 184

The slide to utilitarianism is therefore not a solution to the problems that we perceive with the individualized author figure and function, notwith-standing the shift from the deontological to the teleological. Rather than taking a utilitarian turn towards economic theory, then, we propose a discursive turn towards relational theory. This can illuminate the importance of authorship to the author, the audience, *and* participatory society in a way that theories wedded to the discourses of individualism and legal liberalism cannot. Relational theory is therefore preferable to a utilitarian approach that, in Kaminski's terms, "makes the discussion of authorship a discussion about incentives and net social welfare rather than humanness," or that focuses only on the value that works, as products, bring to human audiences, rather than the social value of their dialogic creation and circulation. After all, every human author is also part of the human audience, necessarily "working through culture." 187

<sup>184</sup> Wright, supra note 181 at 73-74.

<sup>185</sup> See generally Carys Craig, Copyright, Communication and Culture: Towards a Relational
Theory of Copyright Law (Cheltenham, UK: Edward Elgar Publishing, 2011) [Craig, Copyright,
Communication and Culture]. See also James Meese, Authors, Users and Pirates: Copyright
Law and Subjectivity (Cambridge, Mass: MIT Press, 2018).

<sup>186</sup> Cf Kaminski, supra note 27 at 599.

<sup>187</sup> Cf Cohen, supra note 159 at 179-80.

## V. AN ONTOLOGY OF AUTHORSHIP

As we have argued, literary theory, even in the post-structuralist strain, has not abandoned the idea of the author—a situated, speaking subject—and their participation in an ongoing process of dialogic exchange. The writer who produces the text is both social product and social agent, their authorship a communicative act necessarily embedded within discursive networks or systems. The work of authorship, as utterance, mediates the relations between the situated speaker subject and addressee/audience (horizontally), but also sits in dialogic relation to the corpus of texts that have come before or alongside it (vertically), 188 and in anticipation of those still to come. 189 In Bakhtinian terms, "every utterance participates in the 'unitary language'...and at the same time partakes of social and historical heteroglossia...."190 As the situated author-subject speaks, "[e]ach word tastes of the context and contexts in which it has lived its socially charged life."191 For Foucault also, "there is a close relationship between language (including all forms of text) and social process (conceived in terms of power relations)."192

Just as the romantic author both entails and requires a particular vision of selfhood and society, so too does a dialogic theory of authorship: rather than Enlightenment individualism, it invokes a relational concept of the self, always already embedded in a complex network of social and cultural relations. Social constructionist Kenneth Gergen explains the link between literary theories of intertextuality and relationality: "[W]ords are active insofar as they are employed by persons in relationship, insofar as they are granted power in human interchange. A relationship between author and reader is required for us to speak of...textual construction...." More simply, perhaps, "because language is essentially a vehicle for communication, its use is always relationally dependent," and its form is always fashioned by

<sup>188</sup> See Allen, *supra* note 87 at 38 (describing Kristeva's conception of the horizontal and vertical dimensions of intertextuality).

<sup>189</sup> See Leslie Baxter, Voicing Relationships: A Dialogic Perspective (New York: SAGE Publications, 2010).

<sup>190</sup> Bakhtin, Dialogic Imagination, supra note 89 at 272.

<sup>191</sup> Ibid at 293.

<sup>192</sup> Ibid at 47.

<sup>193</sup> Kenneth Gergen, Realities and Relationship: Soundings in Social Construction (Cambridge, Mass: Cambridge University Press, 1994) at 47.

the relationships out of which and into which one is speaking. <sup>194</sup> It is the relationship and the human interchange that gives language—or works—their ability to *mean* something: "An individual's utterances in themselves possess no meaning.... In the relational case... there is no proper beginning, no originary source... for we are always already in a relational standing with others and the world." <sup>195</sup> In Wittgensteinian terms: "What I hold fast to is not *one* proposition but a nest of propositions." <sup>196</sup>

Literary theorists such as Barthes have therefore provided the impetus, Gergen argues, for foregrounding relationality in our efforts to understand the nature of communication: rather than beginning with the individual subject and working to provide an account of human understanding through language, we should "begin our analysis at the level of the human relationship as it generates both language and understanding."197 If authorship involves the act of communicating, speaking through text to others, the interchange of meaning "ultimately depends on a protracted array of relationships, extending, one may say, to the relational conditions of society as a whole."198 It makes no conceptual sense, then, to position the author figure as one who is "isolated both spatially and temporally from his community and the background of the art in which he works."199 The dialogic act of authorship cannot be separated from a social context because the "[u]tterance, as we know, is constructed between two socially organized persons.... The word is oriented toward an addressee, toward who that addressee might be.... There can be no such thing as an abstract addressee, a man unto himself, so to speak."200 Or, as analytic philosophers argue, there is no such thing as a private language.201

In this vision of subjectivity, relationality is a central precondition of the human self, neither peripheral nor conditional upon individual action or choice. The bounded unitary self of liberal individualism is a figment of Western political imagination—the ghost in the machine of the liberal

<sup>194</sup> Cf Sheila McNamee & Kenneth J Gergen, Relational Responsibility: Resources for Sustainable Dialogue (Cambridge, Mass: Cambridge University Press, 1999) at 12.

<sup>195</sup> Gergen, supra note 193 at 263-64.

<sup>196</sup> Ludwig Wittgenstein, On Certainty, ed by GEM Anscombe & GH von Wright, translated by GEM Anscombe & Denis Paul (Oxford: Blackwell, 1969) at 225 [emphasis in original].

<sup>197</sup> Gergen, supra note 193 at 263.

<sup>198</sup> Ibid at 268.

<sup>199</sup> Wright, supra note 181 at 62.

<sup>200</sup> VN Vološinov, *Marxism and the Philosophy of Language*, translated by Ladislav Matejka & IR Titunik (Cambridge, Mass: Harvard University Press, 1986) at 85 [emphasis in original].

<sup>201</sup> See Ludwig Wittgenstein, *Philosophical Investigations*, 2nd ed, translated by GEM Anscombe (Oxford, UK: Blackwell Publishers, 1958) at 244–71.

political system, as it were. Relational theory takes as its premise that "persons are socially embedded and that identities are formed within the context of social relationships."202 It is important to emphasize that this social constructionist theory of the author does not deprive the author of subjective agency or self-determination. Indeed, the situated subject exercises creative agency through language by engaging in the constituting and constitutive process of dialogic authorship. As communitarian theorist Charles Taylor succinctly states: "Human beings are constituted in conversation."203 Once again, however, feminist theorists in particular have forged the path towards a vision of selfhood that is neither radically independent of social relations, nor irretrievably subsumed by them. A rich and diverse array of feminist perspectives on the relational self generally share the insight that "mutual, reciprocal, communicative social interactions are necessary for the formation, sustenance, and repair of the self."204 Legal theorist Jennifer Nedelsky, in particular, offers a comprehensive account of "relational autonomy" that presents the human subject as embedded in social networks of interdependence, but also as possessing autonomy—autonomy that is properly conceptualized in relational terms: it is only through relationships that genuine autonomy is made possible. 205

Interestingly, Nedelsky casts the agency and autonomy of the relational self in terms of a human capacity for self-creation: "[A] capacity that means we are never fully determined by our relationships or our given material circumstances.... We are always in a creative process of interaction, of mutual shaping, with all the dimensions of our existence."<sup>206</sup> Identity and subjectivity are constituted by dynamic interaction with others in a process

<sup>202</sup> Catriona Mackenzie & Natalie Stoljar, Relational Autonomy: Feminist Perspectives on Autonomy, Agency, and the Social Self (Oxford: Oxford University Press, 2000) at 4 (cited in Robert Leckey, Contextual Subjects: Family, State and Relational Theory (Toronto: University of Toronto Press, 2008) at 18).

<sup>203</sup> Charles Taylor, "The Dialogical Self" in David R Hiley, James F Bohman & Richard Shusterman, eds, *The Interpretive Turn: Philosophy, Science, Culture* (Ithaca, NY: Cornell University Press, 1991) 304 at 314 (quoted in Kenneth J Gergen, *Relational Being: Beyond Self and Community* (Oxford: Oxford University Press, 2009) at 45).

<sup>204</sup> Amy Allen, "Foucault, Feminism and the Self: The Politics of Personal Transformation" in Dianna Taylor & Karen Vintges, eds, *Feminism and the Final Foucault* (Champaign, Ill: University of Illinois Press, 2004) 235 at 240 (quoted by Leckey, *supra* note 201 at 8).

<sup>205</sup> See Jennifer Nedelsky, Law's Relations: A Relational Theory of Self, Autonomy, and Law (New York: Oxford University Press, 2011).

<sup>206</sup> Jennifer Nedelsky, "Citizenship and Relational Feminism" in Ronald Beiner & Wayne Norman, eds, *Canadian Political Philosophy: Contemporary Reflections* (Don Mills, ON: Oxford University Press, 2001) Part II at 133.

of dialogic exchange that is both interpersonal and intrapersonal. The socially-situated subject exercises creative agency "through this dialogic process of interpreting and ordering experiences, discourses, and social forces." Nedelsky speaks of creativity in the sense of the "capacity to resist and transform existing patterns," to transcend or transform the traditions and relations into which one is born—a capacity for creation that develops, she says, "in constant interaction with layers of social relations." But what we see in this description, and what Nedelsky expressly acknowledges, is the power and agency of artistic creativity—of authorship—in the exercise of what she calls "autonomy within…relations":209

Part of what we cherish in the *human capacity* for innovation, for *artistic creation*, for new forms of social relations...is the ability of individuals not to be determined by their history or the prevailing norms and practices of their communities. We observe and honor the capacity to bring forth the new, to create, to transform, to resist.<sup>210</sup>

This helpfully brings together the idea of dialogic authorship with relational autonomy: both represent a "kind of creative engagement with the world." The creation of art—in our terms, the act of authorship—is, in a sense, an obvious and observable output of the "human capacity for creation and its component of autonomy." And by thinking of authorship as a capacity for creative interaction, rather than individual origination, we can emphasize that "creativity always takes place in relation to what exists and that the creativity exceeds, transforms, generates something new out of what exists." Much of "[t]he positive dimension of the Western attachment to autonomy," for Nedelsky, is attached to this "capacity… to envision something new…, to shift the terms of relations… whether through an idea, an invention, art…, [which] requires a capacity…, at least in small ways to

<sup>207</sup> Cf Carys Craig, "Reconstructing the Author-Self: Some Feminist Lessons for Copyright Law" (2007) 15:2 J Gender Soc Pol'y & L 207 at 260.

<sup>208</sup> Nedelsky, supra note 205 at 55.

<sup>209</sup> Mackenzie & Stoljar, supra note 202 at 9.

<sup>210</sup> Nedelsky, *supra* note 205 at 51 [emphasis added].

<sup>211</sup> Ibid at 47.

<sup>212</sup> Ibid.

<sup>213</sup> *Ibid* at 48. On the implications of this for the development of copyright doctrine, including originality and fair dealing, see generally Craig, *Copyright, Communication and Culture, supra* note 185. Regarding the implications for determinations of substantial similarity and infringement, see Carys Craig, "Transforming 'Total Concept & Feel': Dialogic Creativity and Copyright's Substantial Similarity Doctrine", online (pdf): *SSRN* <papers.ssrn.com/sol3/papers.cfm?abstract\_id=3691280> [forthcoming in Cardozo Arts & Ent LJ].

be imaginative and innovative."<sup>214</sup> But, crucially, "[i]t is important not to read the above as invoking a human capacity for greatness or genius."<sup>215</sup> The creative capacity for imagination comes from within the human actor "enabled by her relational web."<sup>216</sup> Nedelsky insists that this capacity has great value, indeed it is "essential to life"<sup>217</sup>—"despite the ugly caricature of it in the iconic independent, self-made man"<sup>218</sup> (who should by now be familiar to us as an instantiation of the romantic author).

This notion of human creative interaction captures the ontology of authorship as we understand it. Authorship, as discursive interaction, necessarily occurs in the domain of relatedness—a domain alien to the romantic author, of course, and likewise foreign to the machine. Reflecting on the implications of AI authorship, as discussed in Part III, Kaminski suggests that "[r]omanticizing creativity as some essential aspect of human identity is harder to do when a machine can produce the same creative works."<sup>219</sup> But to regard creativity as an essential aspect of human identity, one need not romanticize it. Indeed, as we have argued, if romanticism entails individualism and independent origination, then one must not; in doing so, we lose what it is about creativity that makes it so essential.

And so, we would suggest, the outputs generated by AI (whether or not that AI passes a Turing test) are never in fact "the same" as the human creations they seek to imitate. Even if facially indistinguishable, they are fundamentally different in kind. Bakhtin wrote that "consciousness is never self-sufficient; it always finds itself in an intense relationship with another consciousness." If text is a vehicle through which our consciousness relates to another consciousness—one or many, immediate or asynchronous—then authorship presupposes something that AI does not have, and cannot produce. The romantic author is fictive in his isolation and original genius, and so cannot resemble the relational human author that we have described here, engaged in a dialogic exchange of meaning. The "AI author"

<sup>214</sup> Nedelsky, supra note 205 at 48.

<sup>215</sup> Ibid.

<sup>216</sup> Ibid at 49.

<sup>217</sup> Ibid at 73: Nedelsky believes that "all life-forms possess this capacity in some degree. It is essential to life." Even this broad vision of the creative capacity, which could in practice extend to include animals, would not extend past the realm of living being to encompass machines.

<sup>218</sup> Ibid at 49.

<sup>219</sup> Kaminski, supra note 27 at 594.

<sup>220</sup> Bakhtin, *Dostoevsky's Poetics*, *supra* note 97 at 26 (quoted in McNamee & Gergen, *supra* note 194 at 11).

is similarly fictive, imaginary in its supposed autonomy and emergent creativity, and bears no ontological resemblance to the human author. The death of the romantic author therefore entails the death of the AI author.

## VI. CONCLUSION: THE DEATH OF THE AI AUTHOR

"To live means to participate in dialogue: to ask questions, to heed, to respond, to agree, and so forth," wrote Bakhtin.<sup>221</sup> We might equally say that to participate in dialogue of this nature means to be alive—something that artifacts, by definition, cannot be. If the great value of authorship to society lies in encouraging the human creative capacity "to resist and transform existing patterns,"<sup>222</sup> this value is nowhere to be found in AI processes that merely identify existing patterns, reinforce them, and replicate them. To say authorship is human, that it is fundamentally connected with *humanness*, is not to invoke the romantic author, nor is it to impose a kind of chauvinism that privileges human-produced artifacts over those that are machine-made. Rather, it is to say that human communication is the very point of authorship as a social practice—indeed, as a condition of life. As such, we do not think we are being at all romantic when we say that authorship, in this sense, is properly the preserve of the human.

The false dichotomy between the romantic author and the AI author is readily understandable, but it ignores vast swathes of philosophical, literary, and socio-cultural theory on the nature of language, authorship, relationality, and law. In doing so, it risks oversimplifying the issues at stake in our current conundrums around the treatment of AI-generated works within our copyright framework. This in turn risks undermining efforts to develop a broader teleological vision for copyright policy, guided by a richer concept of culture and society than utilitarianism can offer. Even more fundamentally, however, it misses an opportunity to engage with essential normative and ontological questions about the nature, role, and relational networks into which AI is stepping, and the social values that should inform its regulation.

<sup>221</sup> Gary Saul Morson & Caryl Emerson, *Mikhail Bakhtin: Creation of a Prosaics* (Stanford: Stanford University Press, 1990) at 60.

<sup>222</sup> Cf Nedelsky, supra note 205, and accompanying text.