COPYRIGHT OWNERSHIP AND DURATION OF AI-AUTHORED WORKS

On the assumption that Parliament has endorsed the notion of AI authorship and the prospect that copyright may well subsist in works created autonomously by the AI itself, this essay further explores allied issues surrounding the ownership and duration of copyright in AI-authored works.

SAW Cheng Lim[1]
LLB (Hons) (National University of Singapore), LLM (Cambridge); Advocate and Solicitor (Singapore);
Associate Professor of Law, Yong Pung How School of Law, Singapore Management University.

I. Introduction

1 The research inquiry for this short essay is a narrow one and intended to be a natural follow-up to the author's earlier (co-authored) paper on artificial intelligence ("AI") authorship, titled "The Case for AI Authorship in Copyright Law".[2] The discussion which follows will therefore be based on the premise that Parliament has endorsed the proposition that in appropriate circumstances, AI models and systems can qualify in law as the putative "authors" of works generated by them in an *autonomous* capacity. As such, the only questions that remain to be answered are: Which party or legal person should rightfully own the copyright that attaches to AI-authored/generated works, and for how long?

2 It might be convenient at the outset to dismiss the prospect that copyright ownership of AI-authored works be vested in the user of the AI software. Where AI-authored works are concerned, such works are considered to have been generated autonomously by the AI itself with minimal (*de minimis*) input, by way of prompts, from the user concerned. It is clearly undesirable and wrong in law for users of AI software – who have *not* directed their independent creative/intellectual efforts at the output's *expression* – to own copyright under such

1 The author is grateful to Duncan Lim, Ryan Tan and Teh Hong Yi for helpful research assistance.

2 See Cheng Lim Saw & Duncan Lim, "The Case for AI Authorship in Copyright Law" 18(1) *Law, Innovation and Technology* (forthcoming, 2026) <https://ssrn.com/abstract=5108423> (accessed 30 August 2025).

circumstances. Equally, AI models and systems *per se* are incapable of copyright ownership for obvious reasons; humans – or, more generally, legal persons – must remain the owners of any resulting intellectual property ("IP") rights.

3 It has been argued elsewhere and in the patent law context that granting patent ownership of AI-generated inventions to the owner of the AI entity by default will "maximise social welfare, encourage innovation, and incentivise investment in (and more widespread use of) AI technology".[3] A similar argument has also been made in the copyright context – that the economic or utilitarian theory of copyright (whereby AI-authored works might be said to be commercially valuable or have social utility) may yet justify the protection of AI-generated content.[4] The present piece will therefore not rehearse these theories again. Instead, the analysis here will focus on the various doctrinal arguments – in particular, the doctrine of accession – that underpin why any copyright subsisting in AI-authored works ought to vest in the AI owner in the first instance. At this juncture, a deep dive into the principle of accession is apposite.

II. The doctrine of accession: a primer

4 How, in law, may original ownership be established for valuable objects or resources that are unowned? Two mechanisms are potentially available – first possession, and the principle of accession.[5]

5 Accession is a principle of Roman civil law[6] and has been applied to situations such as "the growth of vegetables [and] the progeny of animals".[7]

---

3 Cheng Lim Saw & Samuel Zheng Wen Chan, "Of Inventorship and Patent Ownership: Examining the Intersection Between Artificial Intelligence and Patent Law" [2023] Sing JLS 27 at 44 (and see also the arguments made at 44–45).

4 See Cheng Lim Saw & Duncan Lim, "The Case for AI Authorship in Copyright Law" 18(1) *Law, Innovation and Technology* (forthcoming, 2026) (manuscript at pp 16–17) <https://ssrn.com/abstract=5108423> (accessed 30 August 2025).

5 See generally Thomas Merrill, "Accession and Original Ownership" (2009) 1(2) *Journal of Legal Analysis* 459. See also Arjun Padmanabhan & Tanner Wadsworth, "A Common Law Theory of Ownership for AI-Created Properties" (2024) 104 *Journal of the Patent and Trademark Office Society* 155 at 172: "Recently, however, a growing body of scholarship has sought to reintroduce accession as a broad theory for solving novel or difficult problems in property law, or even as an alternative theory of ownership in competition with first possession."

6 See Earl Arnold, "The Law of Accession of Personal Property" (1922) 22 *Columbia Law Review* 103 at 104.

7 Simon Stern, *Oxford Edition of Blackstone's Commentaries on the Laws of England* (Oxford University Press, 2016) Book II, ch 26 at p 274. See also *Thaler v Comptroller-General of Patents, Designs and Trade Marks* [2020] EWHC 2412 (Pat) at [49(3)(a)]; and *Thaler v Commissioner of Patents* [2021] FCA 879 at [167].

In the words of the renowned commentator William Blackstone, "[of] all tame and domestic animals, the brood belongs to the owner of the dam or mother" (or *partus sequitur ventrem*).[8] This stems from a broader application of the doctrine in granting title to a new (and unowned) resource/asset based upon its relationship to something that is already owned.[9] As Thomas Merrill explains, accession confers ownership of new (and unowned) resources/assets on the owner of *existing* property that is *most prominently or closely connected* to the new resource/asset.[10] Where newborn animals are concerned, ownership of them is "uniformly assigned [through the doctrine of accession] to the person who owns another resource that has a prominent connection to the new resource – the newborn's mother".[11] It has likewise been observed that this broader conception of accession "vests a person with an interest in property, not because he possessed it first, but because he is able to establish the *strongest logical connection* to it" [emphasis added].[12]

6 A salient feature of this system of attributing property rights is the concept of "dominion" or "exclusive possession". Typically, the identified proprietor is someone who has exclusive possession of (and hence, authority or control over) the "parent" property and, as a corollary, the new resource.[13] This is readily apparent from Blackstone's

8 William Blackstone, *Commentaries on the Laws of England* vol 2 (Clarendon Press, 1766) at p 390. See also *Carruth v Easterling* 247 Miss 364 at 371 (Miss, 1963): "The general rule, in the absence of an agreement to the contrary, is that the offspring or increase of tame or domestic animals belongs to the owner of the dam or mother."

9 See Peter Lee, "The Accession Insight and Patent Infringement Remedies" (2011) 110(2) *Michigan Law Review* 175 at 195; and Thomas Merrill, "Accession and Original Ownership" (2009) 1(2) *Journal of Legal Analysis* 459 at 460.

10 See Thomas Merrill, "Accession and Original Ownership" (2009) 1(2) *Journal of Legal Analysis* 459 at 463. For the reasons as to why the owners of prominently connected property are likely to be competent to serve as owners of new resources/assets, see further at 489.

11 Thomas Merrill, "Accession and Original Ownership" (2009) 1(2) *Journal of Legal Analysis* 459 at 465. See also Arjun Padmanabhan & Tanner Wadsworth, "A Common Law Theory of Ownership for AI-Created Properties" (2024) 104 *Journal of the Patent and Trademark Office Society* 155 at 173: "Under an accession doctrine called the law of increase, the offspring of two animals belongs to the owner of the female animal. The new animal did not exist before, and so was not owned, but the significance of the baby's connection to the mother – and thus the mother's owner – provides a principled rationale for allocating its ownership."

12 Arjun Padmanabhan & Tanner Wadsworth, "A Common Law Theory of Ownership for AI-Created Properties" (2024) 104 *Journal of the Patent and Trademark Office Society* 155 at 172. See further at 172: "This logical connection could mean many things, but in practice it often means that his interest is worth more money."

13 See *Thaler v Comptroller General of Patents, Trade Marks and Designs* [2021] EWCA Civ 1374 at [131].

commentary that "[the] doctrine of property arising from accession is also grounded on the right of *occupancy*", such that:[14]

> … if any given corporeal substance received afterwards an accession by natural or by artificial means, as by the growth of vegetables, the pregnancy of animals, the embroidering of cloth, or the conversion of wood or metal into vessels and utensils, the original owner of the thing was entitled by his right of *possession* to the property of it under such its state of improvement. [emphasis added]

7 Admittedly, it might appear somewhat incoherent to suggest that the AI owner is in "occupancy" or "possession" of the AI, since AI is essentially *intangible* computer code in which literary copyright potentially subsists.[15] Nonetheless, with copyright in the computer code ordinarily residing with the AI owner and if "occupancy" and "possession" are construed *purposively* (to encompass notions broader than "control" or "dominion" *per se*), then akin to how the "original owner" in Blackstone's example above has assumed *responsibility* for (and has *contributed* to) the growth and development of the plant or animal that ultimately bears fruit or offspring respectively, it is at least arguable that the AI owner ought also to be entitled – through the doctrine of accession – to any copyright subsisting in the output generated autonomously by the AI author.[16] This is on account of the AI owner taking full *responsibility* for (and having *contributed* significantly to) the overall design, operation and subsequent enhancement of the AI tool. It is hereby posited that the "relational connection" between the AI owner and the AI tool, when benchmarked against such attributes as "responsibility" and "contribution", is arguably on a par with that between an individual and his plant/animal. To therefore adopt a similar line of reasoning, because an AI-generated work (like a newborn animal) did not exist before and was not previously owned and because of the significance of the (autonomously created) work's connection to the AI tool (since the AI is, in this instance, recognised as its author), it is not unprincipled to argue that ownership of copyright in the output ought to be allocated to the AI owner.

14 William Blackstone, *Commentaries on the Laws of England* vol 2 (Clarendon Press, 1766) at p 404.

15 *Cf*, however, the alternative thinking that "possession" – which is traditionally understood as a concept requiring "physical control" – can indeed be coherently applied to *intangible* assets: see generally João Marinotti, "Possessing Intangibles" (2022) 116 *Northwestern University Law Review* 1227.

16 That ownership through accession is a principle tied to the notion of who (or which party) has *contributed* the most value to – and should ultimately be taking *responsibility* for – the final output has been echoed in: Note, "Accession On the Frontiers of Property" (2020) 133(7) *Harvard Law Review* 2381 at 2385 <https://www.jstor.org/stable/10.2307/26934325> (accessed 30 August 2025).

8 At this point, mention should also be made of Blackstone's *proviso* – that "if the thing itself, by such operation, was changed into a different species, as by making wine, oil, or bread, out of another's grapes, olives, or wheat, it belonged to the new operator".[17] In other words, where the new resource is of "a different species" or has been so materially changed from the parent property, the new item of property belongs to the "new operator" (and not the owner of the parent property). So, for instance, the person who produces wine/oil from another person's grapes/olives will take property in the wine/oil, given that wine/oil is of "a different species" from grapes/olives.

9 Nevertheless, it is submitted, for the following two reasons, that Blackstone's qualification in this regard should not govern the output generated autonomously by an AI author so as to displace the general application of the accession principle. Firstly, it is to be noted that the AI's output – being authorial works (such as literary and artistic works) – typically comprise copyrightable subject matter which is certainly *not* of "a different species" from the source code of the AI software as well as the input data/materials employed in the training of AI models (all of which are authorial works potentially protected by copyright). To that extent, the inputs and outputs should not be considered so materially different as to constitute "a different species". Secondly, and more fundamentally, there is no "new operator" in existence since the output in question is all produced *autonomously* by the parent property itself (that is, the AI tool), just as how fruits and vegetables emanate from (the parent) plants and trees. It is also pertinent to observe in these scenarios that the new resource (such as a piece of fruit or an AI-generated work) stems from an entity/thing that is itself incapable of owning property (for want of legal personhood), unlike the various examples cited in Blackstone's qualification where the "new operator" (for instance, the wine-maker) is a legal person perfectly capable of property ownership.

10 Preliminarily, therefore, it appears that there is no reason in principle why the doctrine of accession cannot apply – without qualification – to confer ownership of copyright in AI-generated works (the new and unowned resource) on the owner of the AI, whose existing "property" (the AI tool) arguably has the most prominent or closest connection to the new resource. In other words, the AI owner is deemed to be the party with the "strongest logical connection" to all the output generated autonomously by the AI.

17 William Blackstone, *Commentaries on the Laws of England* vol 2 (Clarendon Press, 1766) at p 404.

III. Can the doctrine of accession apply where intellectual property rights are concerned?

11 There might, however, be two impediments to recognising that the principle of accession is applicable in the context of intangible IP rights.

12 Firstly, the doctrine of accession has been criticised for, *inter alia*, impoverishing the public domain, particularly "insofar as it applies to intellectual goods".[18] Such criticisms obviously resonate with those who object to the notion of AI authorship and opine that all works autonomously generated by AI-based systems must belong to the public domain. Be that as it may, this paper will not address the normative implications of applying the principle of accession because it accepts, as a starting point, the legislative recognition and endorsement of AI authorship and that copyright can attach to AI-authored works in appropriate circumstances.

13 Secondly, English case law has notably clarified that the doctrine of accession has no application at all in the realm of intangible property rights. The doctrine was recently rejected by the UK Court of Appeal in the high-profile patent case of *Thaler v Comptroller General of Patents, Trade Marks and Designs*[19] ("*Thaler CA*") and then by the UK Supreme Court on appeal in *Thaler v Comptroller-General of Patents, Designs and Trade Marks*[20] ("*Thaler UKSC*"). The English courts' primary holding (which is now well-known in the IP community) is that only natural persons – and not AI machines like DABUS – may be named as inventors for the purposes of the patent statute. Secondarily, in response to the appellant's (Dr Thaler's) contention that he derived title to the inventions in question because they were produced by DABUS (the AI machine that he owned), Lord Kitchin on behalf of the apex court ruled (as did the lower court) that the principle of accession only "concerns new *tangible* property produced by existing *tangible* property" [emphasis added], and

18 See Thomas Merrill, "Accession and Original Ownership" (2009) 1(2) *Journal of Legal Analysis* 459 (especially at 462 and 503–504).

19 [2021] EWCA Civ 1374.

20 [2023] UKSC 49. *Cf*, in parallel (DABUS) proceedings in Australia, the reasoning of Beach J in *Thaler v Commissioner of Patents* [2021] FCA 879 at [188]–[193] (on what appears to be the question of acquiring title to an invention through the concept of "possession"). This particular aspect of Beach J's judgment, which was ultimately overturned on appeal, was left unaddressed by the Full Court of the Federal Court of Australia: see *Commissioner of Patents v Thaler* [2022] FCAFC 62 at [113].

thus Dr Thaler's reliance on accession in the context of s 7(2)(b) of the UK Patents Act 1977[21] was "misguided".[22]

14 Of significance, however, is the fact that Lord Kitchin's concerns over the erroneous conflation of tangible and intangible property rights in so far as the application of the principle of accession is concerned relate *specifically* to the patent framework within which an applicant must formally apply for a patent (since patents are registrable IP rights). This might therefore warrant a careful consideration of whether the common law principle itself may be properly accommodated within the relevant statutory provision regarding the right (of any person) to apply for and obtain a patent.[23]

15 Crucially, such a scenario does not present itself where the scheme of copyright protection is concerned as copyright (a non-registrable IP right) subsists *automatically* upon the satisfaction of a number of criteria. According to conventional wisdom, the author of a work is also the default owner of copyright subsisting therein.[24] Given the starting premise of this paper that Parliament has endorsed the notion of AI authorship and because an AI machine/tool is not a legal person capable of owning copyright,[25] the primary question of relevance that this paper seeks to answer – in the *absence* of a statutory framework (akin to the patent system) relating to derivation of title and entitlement – is whether the principle of accession might apply under such circumstances to vest the ownership of copyright in AI-authored works in the owner of the AI

21 (c 37) (UK).

22 *Thaler v Comptroller-General of Patents, Designs and Trade Marks* [2023] UKSC 49 at [87]. See also at [88]: "We are not concerned here with a new item of tangible property produced by an existing item of tangible property …" and *Thaler v Comptroller General of Patents, Trade Marks and Designs* [2021] EWCA Civ 1374 at [130]–[137].

23 Namely, s 7(2) of the Patents Act 1977 (c 37) (UK) (and *cf* s 19(2) of the Patents Act 1994 (2020 Rev Ed) (S'pore)). See further *Thaler v Comptroller-General of Patents, Designs and Trade Marks* [2023] UKSC 49 at [86]: "One must be careful to understand what this means, however. The right we are concerned with, as conferred by the 1977 Act, is a right to apply for a patent for what is said to be an invention …".

24 See s 133(1)(*a*) of the Copyright Act 2021 (2020 Rev Ed) (S'pore).

25 To be clear, the author is not advocating that AI systems be accorded legal personhood, which is an issue of contention that lies beyond the scope of this paper. Interestingly, the UK Law Commission recently raised the "perhaps radical" prospect of conferring separate legal personality on AI systems: see United Kingdom, Law Commission, *AI and the Law: A Discussion Paper* (31 July 2025) at pp 21–23 <https://lawcom.gov.uk/publication/artificial-intelligence-and-the-law-a-discussion-paper/> (accessed 30 August 2025). For further reading, see Nick Hilborne, "Law Commission Raises 'Radical' Option of Granting AI Legal Personality", *Legal Futures* (6 August 2025) <https://www.legalfutures.co.uk/latest-news/law-commission-raises-radical-option-of-granting-ai-legal-personality> (accessed 30 August 2025).

machine/tool. This is a question of law that, for obvious reasons, Lord Kitchin did not address in his judgment.

16 Accordingly, the present author is of the view that Lord Kitchin's *dicta* in *Thaler UKSC*[26] on the misapplication of the doctrine of accession – whether or not this amounts to a misapplication in the realm of IP rights is an issue that will be addressed in greater detail next – should be *strictly confined* to the patent law context and should *not* in any way constrain its application where copyright protection and ownership are concerned.

17 Detractors who opine that it is erroneous to invoke the principle of accession where new intangibles (that is, of the kinds which are the subject matter of IP law) are produced by existing tangible property may conveniently point to Arnold LJ's reservations in *Thaler CA*, that:[27]

> Although Blackstone was well aware of the existence of intangible property, … he did not suggest that the rule of accession applied to intangible property produced by tangible property, probably because such a possibility did not occur to him.

18 Yet, as the author has observed elsewhere, "Blackstone did not explicitly [and exclusively] confine the doctrine of accession to tangible property capable of exclusive possession" [references omitted].[28] It was also elucidated in the same paper that "this would have been Blackstone's obvious position since the idea of the *autonomous* creation of intangible property by tangible property could not, by any stretch of the imagination, have been contemplated [in the year 1766]" [emphasis in original].[29] Accordingly, it is re-emphasised here that "[o]n balance, the doctrine of accession advocated by Blackstone is thus *neutral* in its potential application to the question of patent ownership of AI-generated

---

26 *Thaler v Comptroller-General of Patents, Designs and Trade Marks* [2023] UKSC 49 (see, in particular, at [87] and [88]).

27 *Thaler v Comptroller General of Patents, Trade Marks and Designs* [2021] EWCA Civ 1374 at [132].

28 Cheng Lim Saw & Samuel Zheng Wen Chan, "Of Inventorship and Patent Ownership: Examining the Intersection Between Artificial Intelligence and Patent Law" [2023] Sing JLS 27 at 46.

29 Cheng Lim Saw & Samuel Zheng Wen Chan, "Of Inventorship and Patent Ownership: Examining the Intersection Between Artificial Intelligence and Patent Law" [2023] Sing JLS 27 at 46. See also Note, "Accession On the Frontiers of Property" (2020) 133(7) *Harvard Law Review* 2381 at 2402 <https://www.jstor.org/stable/10.2307/26934325> (accessed 30 August 2025): "And though neither Bracton nor Blackstone could foresee the internet, the common law has developed a framework that can resolve these new conflicts intuitively and flexibly. … As the forms of property change, using accession to resolve these new property conflicts shows that accession isn't just about improvers and owners or labor and goods, but rather about adjudicating competing claims to indivisible things."

inventions"[30] [emphasis in original] (and, by extension, copyright ownership of AI-generated works).

19 Commentators have, in any event, extensively debated the question whether the principle of accession *only* applies to new tangible property produced by existing tangible property. For instance, Thomas Merrill argues that the principle of accession "applies much more broadly", "is extremely widespread … [even] ubiquitous" and "also operates in other contexts involving intangible rights".[31] In regard to his assertion that "accession also plays a large role in intellectual property regimes", Merrill observes that "[c]opyright [in particular, the right of adaptation] provides a particularly striking illustration".[32] Separately, in a Note published in the *Harvard Law Review*, it was observed that "[s]cholars have already proposed applying accession to inevitable misappropriation cases, fair use cases, and patent infringement cases". The author of that Note therefore sought to further establish that the principle of accession was also able to "handle disputes involving different [and new] kinds of property interests, including conflicts between moral rights and real property, copyright and the right of publicity, and even trademark and domain names".[33]

20 Finally, although "it may seem unusual to take principles generally applied in the context of real and personal property and map them onto an intellectual property problem",[34] Padmanabhan and Wadsworth argue persuasively that:[35]

> … [the] doctrines of first possession and accession offer a solution to the modern legal problem of generative AI. By applying the rules of personal property to the realm of intellectual property, the law can attribute exclusive

30 Cheng Lim Saw & Samuel Zheng Wen Chan, "Of Inventorship and Patent Ownership: Examining the Intersection Between Artificial Intelligence and Patent Law" [2023] Sing JLS 27 at 46–47.

31 Thomas Merrill, "Accession and Original Ownership" (2009) 1(2) *Journal of Legal Analysis* 459 at 464.

32 Thomas Merrill, "Accession and Original Ownership" (2009) 1(2) *Journal of Legal Analysis* 459 at 468. Other examples from intellectual property law include patent improvements and the doctrine of equivalents (at 468–469), trade mark dilution (at 469) and the right of publicity in the US (at 469).

33 Note, "Accession On the Frontiers of Property" (2020) 133(7) *Harvard Law Review* 2381 at 2387 and 2393 <https://www.jstor.org/stable/10.2307/26934325> (accessed 30 August 2025).

34 Arjun Padmanabhan & Tanner Wadsworth, "A Common Law Theory of Ownership for AI-Created Properties" (2024) 104 *Journal of the Patent and Trademark Office Society* 155 at 180.

35 Arjun Padmanabhan & Tanner Wadsworth, "A Common Law Theory of Ownership for AI-Created Properties" (2024) 104 *Journal of the Patent and Trademark Office Society* 155 at 169 (and see also at 181–182).

> ownership of AI-generated works in a principled, efficient manner based on centuries of time-tested precedent. These rules suggest that patents and copyrights – the only meaningful way to possess these kinds of property – be vested, not in non-existent inventors and authors, but in the human or humans with the *leading interest* in the property. [emphasis in original]

21 Needless to say, the present author is entirely aligned with the views expressed above and categorically submits that the principle of accession offers a legitimate and principled basis for allocating ownership of intangible property rights in AI-generated output.

IV. Which party is the rightful owner of copyright in AI-authored works?

22 If Parliament were to endorse the notion of AI authorship (this paper's starting premise) and further embrace the principle of accession for the foregoing reasons, an important issue left to be addressed is to identify the rightful owner of copyright subsisting in AI-authored content. Which party or legal person has the "strongest logical connection" to – or the "leading interest" in – the output generated autonomously by the AI? As alluded to above, it is the author's contention that the AI owner is rightfully the party whose existing "property" (the AI tool) has the most prominent or closest connection to the new resource in question.

23 It has been advanced in the context of patentable AI-generated inventions that "if the AI contributed most of the conception of the patentable subject matter, and the improver [namely, the user] input a prompt into the AI that was not critical to the conception of that subject matter, the AI owner would have the leading interest in the invention. In that situation, the AI and the improver would both still be listed as inventors. Still, *the AI owner would be the assignee of the patent rights*" [emphasis added].[36] Parenthetically, this line of argument that ascribes the ownership of intangible IP rights to the AI owner closely mirrors the analysis proffered by the author in an earlier (co-authored) paper on the same subject.[37]

---

36 Arjun Padmanabhan & Tanner Wadsworth, "A Common Law Theory of Ownership for AI-Created Properties" (2024) 104 *Journal of the Patent and Trademark Office Society* 155 at 177.

37 See generally Cheng Lim Saw & Samuel Zheng Wen Chan, "Of Inventorship and Patent Ownership: Examining the Intersection Between Artificial Intelligence and Patent Law" [2023] Sing JLS 27.

24 Hitherto, it has been argued elsewhere that as a default rule, patent ownership of AI-generated inventions – and, *mutatis mutandis*, copyright ownership of AI-authored works – ought to vest in the owner of the AI entity in the first instance.[38] To briefly reiterate, the reasons for espousing this position are as follows:

(a) This default rule provides for greater legal and commercial *certainty* because it circumvents the dilemma of having to decide who precisely had undertaken "the arrangements necessary for the creation of the work" in question,[39] had the approach advocated in s 9(3) of the UK Copyright, Designs and Patents Act 1988[40] been adopted instead.[41]

(b) It also reflects commercial *reality* since in the vast majority of cases, the AI owner (such as OpenAI in the case of ChatGPT) will likely be the party to *make and fund* all "the arrangements necessary" for the AI to be capable of generating content autonomously. As an employer with deep pockets, OpenAI (which has a presence in Singapore)[42] would conceivably have hired its own team of software developers/engineers and

38 See, in particular, Cheng Lim Saw & Samuel Zheng Wen Chan, "Of Inventorship and Patent Ownership: Examining the Intersection Between Artificial Intelligence and Patent Law" [2023] Sing JLS 27 at 48–50.

39 See, *eg*, *Commissioner of Patents v Thaler* [2022] FCAFC 62 at [119]: "The options include one or more of: the owner of the machine upon which the artificial intelligence software runs, the developer of the artificial intelligence software, the owner of the copyright in its source code, the person who inputs the data used by the artificial intelligence to develop its output, and no doubt others." See also *Thaler v Commissioner of Patents* [2021] FCA 879 at [194].

40 (c 48) (UK).

41 Section 9(3) of the Copyright, Designs and Patents Act 1988 (c 48) (UK) concerns the issue of authorship of computer-generated works (that is, *per* s 178, works "generated by computer in circumstances such that there is no human author of the work") and reads as follows: "In the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken." This paper will not address the various criticisms levelled at s 9(3) – see, *eg*, Patrick Goold, "The Curious Case of Computer-Generated Works Under the Copyright, Designs and Patents Act 1988" [2021] 2 *Intellectual Property Quarterly* 119; Emily Hudson & James Parish, "Submission to the UK Intellectual Property Office: Copyright and AI" (25 February 2025) at pp 24-29 <https://ssrn.com/abstract=5175875> (accessed 30 August 2025); James Parish, "Time to Repeal Section 9(3) of the Copyright, Designs and Patents Act 1988: New Insights From the Lobbying and Drafting History Behind the Infamous United Kingdom Computer-generated Works Regime" [2025] 2 *Intellectual Property Quarterly* 94.

42 See Firdaus Hamzah, "ChatGPT-maker OpenAI to Open Singapore Office This Year to Support Regional Expansion, *Channel News Asia*" (9 October 2024) <https://www.channelnewsasia.com/singapore/openai-chatgpt-singapore-office-asia-pacific-ai-artificial-intelligence-4665936> (accessed 30 August 2025).

other IT experts to develop the AI. Presumably, it also owns the copyright subsisting in the source code of the ChatGPT software. Because, as mentioned above, the AI owner typically assumes primary *responsibility* for the overall design, operation and subsequent enhancement of the AI tool, it is only logical and fair that the AI owner be entitled to the ownership of all intangible rights associated with AI-generated output.

(c) In granting ownership of IP rights to the AI owner as a default rule, the law will ultimately benefit from greater *conceptual clarity and coherence*. It has already been canvassed above that the long-standing common law principle of accession provides a reasonably sound conceptual basis for allocating ownership of intangible property rights in AI-generated output. As the author has previously submitted, "there is no reason in principle why the rule of accession cannot be applied to intangible property rights that are *causally* derived from (or connected to) the intellectual output autonomously produced by tangible property", particularly "in cases where the creator/inventor of such intellectual output (such as an AI entity) is not a legal person capable of owning property" [emphasis in original].[43]

25 Separately, other commentators have further observed that rights of accession will also "[enhance] the incentive to innovate"[44] and "deliberately [reward] AI owners because without them, there would be no AI software at all" (and consequently no AI-generated output to speak of).[45] What all this translates to is that the AI owner has the added *incentive* to innovate and develop a more sophisticated AI tool that has the capacity to generate reliable content autonomously *if* it also owns, *inter alia*, the copyright that attaches to AI-generated works. Indeed, as a matter of sound policy, "[r]ewarding innovation encourages future innovation".[46]

43 Cheng Lim Saw & Samuel Zheng Wen Chan, "Of Inventorship and Patent Ownership: Examining the Intersection Between Artificial Intelligence and Patent Law" [2023] Sing JLS 27 at 46.

44 Thomas Merrill, "Accession and Original Ownership" (2009) 1(2) *Journal of Legal Analysis* 459 at 491.

45 Arjun Padmanabhan & Tanner Wadsworth, "A Common Law Theory of Ownership for AI-Created Properties" (2024) 104 *Journal of the Patent and Trademark Office Society* 155 at 179. On this view, granting copyright ownership to the party that made the AI possible in the first place seems sensible because it will incentivise technology companies to keep investing in AI technology and its downstream uses.

46 Arjun Padmanabhan & Tanner Wadsworth, "A Common Law Theory of Ownership for AI-Created Properties" (2024) 104 *Journal of the Patent and Trademark Office Society* 155 at 179.

26 One final point that bears repetition is that the acquisition of title or establishment of original ownership through the principle of accession is merely a default rule that can always be *modified* by contract (for instance, an assignment) so as to allow AI owners to further various other commercial goals. As explained elsewhere in the context of patent ownership of AI-generated inventions:[47]

> … individuals who are not the AI entity's owner but who wish to finance the AI entity's creation, development, operation, or processes, or undertake any other commercial activity (or 'necessary' arrangements) relating to the AI entity, ought to be aware that patent ownership will, by default, vest in the AI entity's owner. The onus will therefore be on these other parties to enter into appropriate contractual arrangements with the AI entity's owner to ensure that they are either adequately remunerated or accorded patent ownership through an assignment from the owner.

27 Thomas Merrill has also underscored this perspective, observing that "[b]oth *fructus* rules [namely, *fructus naturales* and *fructus industriales* which are species of the principle of accession] … are defaults; the individual who is designated the owner under the accession rule can designate by contract some other person as owner".[48] Indeed, this is also reflective of the current commercial practice adopted by several generative AI platform providers. OpenAI's terms of use, for instance, explicitly state that it is the user who retains "ownership rights in Input" and owns "the Output", and further clarify that OpenAI "hereby [assigns] to [the user] all [their] right, title, and interest, if any, in and to Output".[49]

28 It is apposite to conclude this segment of the paper by revisiting the UK Court of Appeal's split decision in *Thaler CA*. In the words of Arnold LJ (who was in the majority), counsel for Dr Thaler had argued that "even if there was no general rule that information produced by a machine was the property of the owner of the machine, nevertheless the owner of the machine owned an invention created by the machine. This is really an argument about *what the law should be*, rather than

47 Cheng Lim Saw & Samuel Zheng Wen Chan, "Of Inventorship and Patent Ownership: Examining the Intersection Between Artificial Intelligence and Patent Law" [2023] Sing JLS 27 at 49–50.

48 Thomas Merrill, "Accession and Original Ownership" (2009) 1(2) *Journal of Legal Analysis* 459 at 465, n 7.

49 See "Ownership of Content" under OpenAI's Terms of Use (11 December 2024) <https://openai.com/policies/terms-of-use/> (accessed 30 August 2025). See also "GitHub Copilot Product Specific Terms" (October 2024) <https://github.com/customer-terms/github-copilot-product-specific-terms> (accessed 30 August 2025): "GitHub does not own Suggestions [defined to mean "the code, functions, and other output returned to [the user] by GitHub Copilot"]. You [the user] retain ownership of Your Code."

about the present state of the law" [emphasis added].[50] Such *dicta*, in the author's view, serve as a timely reminder that although the court's hands are tied (because "modern patent law is almost entirely a creature of statute"),[51] it is *still* within Parliament's purview and prerogative to entertain arguments "about what the law should be" – namely, arguments *in favour of* the application of the accession principle that "the owner of the machine [also owns] an invention created by the machine".

29 It goes without saying that the author is highly supportive of Parliament's intervention in this regard because, as dissenting judge Birss LJ had candidly acknowledged in respect of DABUS (and the author respectfully agrees), "[l]ooking at Dr Thaler's position as it stands [Dr Thaler being the owner of DABUS, the AI machine], it is not obvious that there is any other person with a better right than Dr Thaler's to be granted patents for these inventions".[52] Notwithstanding that these sentiments were expressed against the backdrop of patentable AI-generated inventions, it is submitted that they can also be sensibly transposed to the copyright law context. In other words, it is equally "not obvious that there is any other [legal] person with a better right than [the AI owner's] to be granted [copyrights]" for works created autonomously by AI authors.

V. Alternative views

30 This section of the paper briefly examines a number of alternative perspectives that, aside from the application of the doctrine of accession, appear to support the attribution of ownership rights over AI-generated output to the AI owner.

31 In the second edition of the *magnum opus* on the law of copyright, the learned authors Laddie, Prescott and Vitoria observed thus:[53]

> There may be cases where *the real work has been done by the computer* [*AI?*], the human contribution being too trivial or not sufficiently related to the work that has emerged. Suppose a computer linked directly to a large number of meteorological instruments and programmed automatically to print out a

50 *Thaler v Comptroller General of Patents, Trade Marks and Designs* [2021] EWCA Civ 1374 at [136].

51 *Thaler v Comptroller General of Patents, Trade Marks and Designs* [2021] EWCA Civ 1374 at [136].

52 *Thaler v Comptroller General of Patents, Trade Marks and Designs* [2021] EWCA Civ 1374 at [85].

53 Hugh Laddie, Peter Prescott & Mary Vitoria, *The Modern Law of Copyright* (Butterworths, 2nd Ed, 1995) at p 94.

> weather chart on demand. It seems *factually wrong* to contend that the deviser of the program [that is, the programmer] is the 'author' of the chart. He may have died many years ago, the program may have been bought in from an independent software house, yet every day *quite different charts are printed out*. (It is true that the programmer's labour and ingenuity are in a sense responsible for the chart; but in that sense so are the efforts of the designers of the computer itself; for that matter, so are those of the inventor of the barometer.) It is perhaps even more artificial to argue that the operator [that is, the user] of the computer is the author: the only skill and labour he had employed is ensuring that the flow of programs and data to the machine is maintained. *It might be said that the real author is the owner or hirer of the computer who has expended the capital in setting up and operating the system* [*or indeed the computer itself?*]; but such person is probably a body corporate, and if considered to be the 'author', would enjoy a potentially perpetual copyright. [emphasis added]

32 One can certainly appreciate the concerns raised above in regard to a perpetual copyright monopoly if a body corporate were to be considered the "author" of a computer/AI-generated work. Nonetheless, it is not unreasonable to extrapolate from the last sentence of this extract that "the real author" in such a scenario might perhaps be the computer/AI itself, with the "owner or hirer of the computer[/AI]" being vested with *ownership* of the copyright in the resulting output (the daily weather charts in the aforementioned example). This is because the "owner or hirer of the computer[/AI]" is arguably the party "who has expended the capital in setting up and operating the system" and hence ought to enjoy the proprietary benefits that accompany "the real work". Further, there is no impediment to conferring copyright protection on the owner of the computer/AI even if the owner were to be a "body corporate" because the author will propose, in the next section of this paper, a fixed (time-limited) term of protection for *all* copyright works generated autonomously by AI.

33 Separately, Andrew Wu has floated a "Fictional Human Author Theory" to serve as "an incentive for the AI owner to create works".[54] According to this theory, Wu writes that "when a court finds that a given output of AI is 'authored' by the AI rather than a person, the court should presume the existence of a fictional human author and *assign the copyright to the owner of the AI*" [emphasis added].[55] Mark Lemley echoes

54 Andrew Wu, "From Video Games to Artificial Intelligence: Assigning Copyright Ownership to Works Generated By Increasingly Sophisticated Computer Programs" (1997) 25(1) *AIPLA Quarterly Journal* 131 at 159.

55 Andrew Wu, "From Video Games to Artificial Intelligence: Assigning Copyright Ownership to Works Generated By Increasingly Sophisticated Computer Programs" (1997) 25(1) *AIPLA Quarterly Journal* 131 at 159.

this view, in saying that "[i]f someone owns AI-generated output, the logical choice is the company that runs the AI itself".[56]

34 Finally, drawing a broad analogy with the employer-employee relationship may be worth a thought as well. While it is conceded that there is strictly no relationship of employment (that is, no "contract of service" characterised by, *inter alia*, personal service, control and mutuality of obligations)[57] between the AI and its owner and there is no opportunity for engagement or reciprocity so far as human consciousness is concerned, it is still plausible to draw parallels between an AI tool that creates in an autonomous capacity and a corporate employee.

35 For instance, an autonomous AI behaves and performs much like a *dutiful* employee. If it is the case that the "traditional elements of authorship" in the work emanate from the AI tool,[58] then it might be argued that the AI can presumptively step into the shoes of an employee and – in accordance with how the model has been programmed, trained and prompted – produce the requisite output in the course of its "employment". Indeed, it has been noted elsewhere that the AI "simply performs, in the absence of discretion, an entirely *ministerial* function – which is to [create] autonomously" [emphasis in original].[59] Also, to reiterate an earlier point, it cannot be gainsaid that an AI owner has taken full responsibility for (and has a strong vested interest in) the overall design, operation and subsequent enhancement of the content-producing AI tool, just as how a corporate employer would have *cultivated* its employees by investing in their continued growth and development in the organisation.

36 It is well-known that an employee (a legal person with the capacity to own property) who creates an original work would otherwise have been the default owner of copyright subsisting therein,[60] but for the

56 Mark Lemley, "How Generative AI Turns Copyright Upside Down" (2024) 25 *Columbia Science and Technology Law Review* 21 at 41.

57 See generally *Public Prosecutor v Jurong Country Club* [2019] 5 SLR 554.

58 See US Copyright Office, *Compendium of US Copyright Office Practices* (3rd Ed, 2021) at § 313.2, quoting US Copyright Office, *Report to the Librarian of Congress by the Register of Copyrights* (1965) at p 5; Letter from Robert J Kasunic, Associate Register of Copyrights and Director of the Office of Registration Policy & Practice, US Copyright Office to Van Lindberg, Esq, Taylor English Duma LLP, counsel for Kristina Kashtanova (21 February 2023) at p 8 <https://copyright.gov/docs/zarya-of-the-dawn.pdf> (accessed 30 August 2025): "[I]t was Midjourney – not Kashtanova – that originated the 'traditional elements of authorship' in the images."

59 Cheng Lim Saw & Samuel Zheng Wen Chan, "Of Inventorship and Patent Ownership: Examining the Intersection Between Artificial Intelligence and Patent Law" [2023] Sing JLS 27 at 48.

60 See s 133(1)(*a*) of the Copyright Act 2021 (2020 Rev Ed) (S'pore).

triggering of a statutory provision that grants first ownership of copyright in works produced in the course of employment to the employer.[61] *A fortiori*, where the work in question is authored by an entity (AI) that does not have legal personhood, the first ownership of copyright in such output ought to vest in the AI entity's "employer" – who, for the reasons outlined above, is arguably the AI owner.

VI. Duration of copyright in AI-authored works

37 For how long should the AI owner (even if a body corporate) be conferred copyright protection for works generated autonomously by AI? In the UK, copyright subsists in "computer-generated works"[62] for 50 years from the time the work was made.[63] Ukraine, on the other hand, protects (non-original) works that are generated without human authorship (such as computer/AI-generated works) with *sui generis* – and not copyright – rights for a period of 25 years from the time the work was created.[64]

38 These are relatively long protection periods. In the author's view, it would be preferable to confer a *significantly shorter* term of protection – 3 to 5 years for instance – to reflect the ease and speed with which authorial works may be created by AI technology. This shortened term of protection will, in turn, help to level the playing field between AI authors and traditional human authors. Indeed, in a Summary Report by the International Association for the Protection of Intellectual Property ("AIPPI") arising from a study question on copyright/data copyright in artificially generated works, it was observed that granting a shorter term of protection was entirely justified in light of "the reduction in costs [and

61 See s 134 of the Copyright Act 2021 (2020 Rev Ed) (S'pore). *Cf* the "work made for hire" doctrine enshrined in § 201(b) of the Copyright Act 17 USC (US) (1976) and see also the discussion in *Community for Creative Non-Violence v Reid* 490 US 730 (1989); Victor Palace, "What if Artificial Intelligence Wrote This? Artificial Intelligence and Copyright Law" (2019) 71 *Florida Law Review* 217 at 234–238; Zack Naqvi, "Artificial Intelligence, Copyright, and Copyright Infringement" (2020) 24(1) *Marquette Intellectual Property Law Review* 15 at 28–31.

62 As defined in s 9(3) of the Copyright, Designs and Patents Act 1988 (c 48) (UK).

63 See s 12(7) of the Copyright, Designs and Patents Act 1988 (c 48) (UK).

64 See Art 33(6) of Law No 2811-IX on Copyright and Related Rights (1 December 2022) (Ukraine) <https://www.wipo.int/wipolex/en/legislation/details/22385> (accessed 30 August 2025). Under Ukrainian law, original (human-authored) works created with the help of computer/AI technology (that is, computer/AI-assisted works) remain protected under general copyright rules as with all other authorial works. For further reading, see Nataliia Bulat, "Protection of Non-original Objects Generated By Artificial Intelligence: The Ukrainian Copyright Law Approach" (2024) 32 *International Journal of Law and Information Technology* eaae010 <https://doi.org/10.1093/ijlit/eaae010> (accessed 30 August 2025).

time] by using the AI in generating the works … [and also] to safeguard the rights of traditional authors from being replaced by the cheaper labour of AI" [emphasis in original omitted].[65] Apparently, the Dutch delegates had proposed, pursuant to this study, a protection period of just 3 years from the date of publication of the work in question.[66]

39 On the whole, a much reduced term of copyright protection for AI-authored works – for instance, for 3 to 5 years (because there is evidence to suggest that the average commercial life of creative works is relatively short)[67] – should suffice to strike the appropriate balance between adequately incentivising the respective AI owners/companies and placating the wishes of those in the opposite camp who are adamant that AI-generated works rightly belong in the public domain. For completeness, the analysis and arguments presented above in relation to the proposed duration of copyright for AI-authored works should apply with equal force to situations where the output in question is found, as a matter of law and fact, to have been *jointly authored* by the user and AI tool – a distinct possibility canvassed by the author in "The Case for AI Authorship in Copyright Law".[68] In other words, apart from original AI-assisted works (in which the user as copyright owner retains adequate authorial control over, or assumes direct authorial responsibility for, the work's expression) that continue to attract full-blown copyright protection,[69] AI-authored works (with copyright vesting in the AI owner

65 AIPPI, *Summary Report: Study Question – Copyright/Data Copyright in Artificially Generated Works* (Q269-SR-2019, 15 July 2019) at p 17. Reasons justifying a limited term of protection have also been furnished in Enrico Bonadio & Luke McDonagh, "Artificial Intelligence As Producer and Consumer of Copyright Works: Evaluating the Consequences of Algorithmic Creativity" [2020] 2 *Intellectual Property Quarterly* 112 at 134–135.

66 See Enrico Bonadio, Nicola Lucchi & Giuseppe Mazziotti, "Will Technology-Aided Creativity Force Us to Rethink Copyright's Fundamentals? Highlights from the Platform Economy and Artificial Intelligence" (2022) 53 *International Review of Intellectual Property and Competition Law* 1174 at 1190. Relevantly, the Australian Government's Productivity Commission has shared evidence which suggests that "the vast majority of works do not make commercial returns from copyright beyond their first couple of years on the market" – for instance, "the average commercial life of music is between 2 and 5 years" while "literary works provide returns for between 1.4 and 5 years on average": see Australian Government, Productivity Commission, *Intellectual Property Arrangements* (Inquiry Report No 78, 23 September 2016) at p 130 <https://www.pc.gov.au/inquiries/completed/intellectual-property/report/intellectual-property.pdf> (accessed 30 August 2025).

67 See n 66 above.

68 See the discussion in Cheng Lim Saw & Duncan Lim, "The Case for AI Authorship in Copyright Law" 18(1) *Law, Innovation and Technology* (forthcoming, 2026) (manuscript at pp 29–32) <https://ssrn.com/abstract=5108423> (accessed 30 August 2025).

69 See, *eg*, the outcome reached by the Beijing Internet Court in *Li v Liu* (2023) Jing 0491 Min Chu No 11279 (27 November 2023).

by default) as well as works jointly authored by the user and AI (with copyright vesting in the user and AI owner jointly)[70] ought to enjoy a term of protection for 3 to 5 years at most.

VII. Conclusion

40 This essay has sought to explain why it remains sensible, as a matter of law and policy, for the AI owner to be recognised as the most deserving candidate to be granted ownership of copyright in AI-authored works. Notwithstanding the plausibility of alternative theories and perspectives, this conclusion has been arrived at through a principled application of the doctrine of accession, which remains the gold standard for allocating rights of ownership over valuable and unowned resources. The discourse above further reveals that there is no reason in principle why the ambit of the doctrine cannot extend beyond the confines of tangible property rights and why Blackstone's account of 1766 cannot be given a fresh, more contemporary reading in light of today's highly sophisticated knowledge-based economy and AI-driven world.

41 In *Thaler v Commissioner of Patents*,[71] Beach J in the Federal Court of Australia had asked provocatively: "We are both created and create. Why cannot our own creations also create?"[72] The present author shares in these sentiments as well and, indeed, "The Case for AI Authorship in Copyright Law" advocates this very position (given the right circumstances). On the other hand, this essay – hopefully a worthy sequel – essentially provides added clarification that any copyright subsisting in AI-authored works ought to: (a) vest in the AI owner by

70 Where works of joint authorship are concerned, it has been observed that "[j]oint authors will usually (but not always) hold the copyright as tenants in common" and "[o]ne joint owner can bring an action for infringement without joining in his co-owner, although this may have an impact on remedies" (*per* George Wei J in *Nanofilm Technologies International Pte Ltd v Semivac International Pte Ltd* [2018] 5 SLR 956 at [42]). The author further posits that the co-owners of copyright in works jointly authored by the user and AI ought to hold the copyright in *equal shares*, owing to the fact that the user *in a generative AI context* would typically have collaborated with the AI tool "in a co-operative fashion, by engaging in multiple re-prompting and numerous back-and-forth iterations until the desired version of the output … is arrived at" (Cheng Lim Saw & Duncan Lim, "The Case for AI Authorship in Copyright Law" 18(1) *Law, Innovation and Technology* (forthcoming, 2026) (manuscript at p 31) <https://ssrn.com/abstract=5108423> (accessed 30 August 2025)). Beyond the generative AI context, however, the reader should note that "the respective shares of joint authors are not required to be equal, but can reflect, *pro rata*, the relative amounts of their contributions" (*per Kogan v Martin* [2019] EWCA Civ 1645 at [53(11)]).

71 [2021] FCA 879.

72 *Thaler v Commissioner of Patents* [2021] FCA 879 at [15].

default; and (b) last for no more than 3 to 5 years.[73] To therefore close on the same note, it is now up to Parliament to make the next move: preferably expeditiously!

---

73 As regards copyright subsisting in works jointly authored by the user and AI tool, see n 70 above and its accompanying text.