SUMMARY: This intervention argues for greater attention to four conceptual and doctrinal sticking points which relate to copyright protection of AI-assisted works. There is an urgent need for international dialogue on, and comparative study of, different approaches to these issues.

Introduction

Issue 7 of WIPO’s Revised Issues Paper on IP Policy and AI mainly focuses on ‘AI-generated’ work. This intervention appeals for more attention to pressing challenges relating to copyright protection of ‘AI assisted’ work. To date, almost all works that have been created using Artificial Intelligence are best categorised as ‘AI-assisted’ works, having required human input at some stage in the creative process. Humans will often be involved in developing initial algorithms, creating datasets for machine learning, selecting parameters for creative tasks, selecting the final output, etc. Indeed, the most impressive and valuable AI creations have involved significant human input (The Next Rembrandt is a much-vaunted example).

Where multiple human contributors are involved, legal complexities quickly multiply. The law governing the authorship of collaborative work is not internationally harmonised and varies between jurisdictions. Even within jurisdictions, whether copyright law will regard a contributor as a joint author or a co-author is frequently unpredictable especially in cases involving new forms of creativity or complex creative processes. Although practical difficulties might be obviated by relying on contract to organise ownership interests, uncertainty in relation to the basic default legal standard creates a suboptimal environment for bargaining. The lack of legal certainty also makes it difficult to assess the operation of copyright incentives in the context of AI-assisted creativity and to compare jurisdictional approaches.

This intervention identifies some of the conceptual and doctrinal sticking points that arise in determining the authorship and ownership of copyright in AI-assisted works. I will do this by identifying four sub-questions that are subsumed within (the latter part of) question (vi) of the Revised Issues Paper: If a human creator is required, who are the different parties involved in creating an AI-assisted work and how should the creator be determined? As some of these

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1 <https://www.nextrembrandt.com/>

2 Joint authorship (where authors collaborate, and their contributions are merged into a single copyright work) should be distinguished from co-authorship (where authors do not work collaboratively and/or their contributions are not merged into a single copyright work). It is possible for a contributor to be neither where their input is not protectable by copyright (e.g., because it consists of mere ideas).
potential obstacles relate to copyright fundamentals, they will also be relevant to a discussion of AI-generated works.

Four doctrinal and conceptual sticking points that arise in relation to AI-Assisted works

1. What amount and type of human contribution will suffice to establish authorship of an Al-assisted work?

The question of what sort of human contribution is sufficient to establish authorship of an Al-assisted work, is likely to illuminate factors relevant to establishing authorship of an AI-generated work (thus, question (vi) of the Revised Issues Paper is logically prior to questions (ii), (iii) and (iv)).

There is increasing global convergence towards a common basic standard of authorship requiring some creative choice. Yet, as the concept of authorship is not harmonised at the international level there is significant variation both within and between jurisdictions as to its outer bounds. The degree of creativity required varies. Sometimes authorship can be stretched to encompass those who have not made creative choices at all, but whose efforts make something socially valuable more accessible, or those who have instigated or invested in a creative project. Other times authorship is quite restrictive, excluding those who have made creative choices but lacked overall control over the creative process. Where non-human elements, such as natural or spiritual forces, are involved sometimes there will be no room for authorship, but at other times a creator will be able to adopt the products of these forces as their own.

The current jurisprudence on authorship is a complex making it nigh impossible to clearly state the contribution necessary for authorship of an AI-assisted work. Some relevant questions to consider include: Must human choices be dominant in some sense? Can machine choices be adopted by humans involved at some point in the creative process? If so, to whom should they be credited (the developer, the user, the investor)? At which point in a creative process must the contribution be made? How specific and precise must the human contribution be?

2. What sort of causal relationship must exist between human input and an Al-assisted work to establish authorship? Does this change when multiple humans are involved?

Few jurisdictions have elaborated tests for the causal connection between a creator and a work for authorship to result. None can provide precise and predictable guidance at a granular level.


4 For example, an accurate report of a public speech (Walter v Lane [1900] AC 539 (HL)) or replica of fine art (Alva Studios v Winninger 177 F Supp. 265 (SDNY, 1959)).

5 As in the case of work for hire in the US, or as regards related rights in sound recordings or broadcasts.

6 As may be where multiple contributors are involved, e.g., Aalmuhammed v Lee 202 F3d 1227 (9th Cir, 2000), 16 Casa Duse v Merkin 791 F3d 247 (2nd Cir, 2015), Hadley v Kemp [1999] EMLR 589 (Ch).

7 For example, a garden in Kelley v Chicago Park District 635 F3d 290 (7th Cir, 2011).

8 Cummins v Bond [1927] 1 Ch 167 (a medium was the author of automatic writing dictated by a spiritual being); see also Alfred Bell v Catalda Fine Arts 191 F 2d 99 (2d Cir 1951) at [8] (a clap of thunder).
Many copyright principles, if strictly applied, would undermine the claims of human contributors to authorship of AI-assisted works due to:

- the ceding of control of elements of the creative process;
- the remoteness of human choices that may occur too early in the creative process (e.g., selecting training data); or,
- the risk that these choices are seen as unprotectable ideas\(^9\) (e.g., setting parameters for a creative task).

3. **Where there are multiple human inputs at different stages of the creative process what sort of relationship between contributors is required to establish joint authorship of the AI-assisted work?**

There is considerable international divergence as to the sort of relationship between creators which might be required for joint authorship to result. For example, US cases have required objective indicia of the intention to merge contributions\(^10\); whereas, UK cases have rejected any requirement for a subjective intention, merely requiring a loose plan or some common design between contributors\(^11\). The international copyright regime is completely silent on the relevance of intention and how collaboration ought to be established.

4. **What is the scope of copyright subsisting in AI-assisted work?**

Challenging questions arise as to the scope of copyright in AI-assisted work, i.e. can a human creator 'adopt' content that is the result of machine choices (or are the scope of rights limited to human creative choices)? There is also considerable divergence in approaches to the scope of copyright works (a work comprised of distinct inter-dependent parts, such as music with accompanying lyrics, for example, might be conceived of as a joint work in the US or two separate works in the UK). Thus, scope of copyright in AI-assisted works might be fragmented along different lines in different jurisdictions. This will have significant practical impacts for the ownership and exploitation of copyright interests.

**The need for international dialogue**

The authorship and ownership of copyright in AI-assisted works is a pressing problem that highlights uncertainties that have not previously been the subject of international focus. WIPO has an important role to play in facilitating dialogue that can bring greater clarity to these important questions. As complex creative processes proliferate in the digital age such clarity is greatly needed. There is also an urgent need for the comparative study of different jurisdictional approaches, with a view to understanding how the allocation of authorship might affect the diversity of creative works and the general health of the creative ecosystem.

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\(^9\) **TRIPS Agreement, Art 9(2).**

\(^10\) **Thomson v Larson 147 F3d 195 (2d Cir, 1998), 203-204.**

\(^11\) **Kogan v Martin [2019] EWCA Civ 1645, [53].**
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Dr Daniela Simone is a Lecturer in Law and Co-Director of the Institute of Brand and Innovation Law at University College London. Her research examines the challenges that the digital age poses for copyright law. Daniela’s book, Copyright and Collective Authorship: Locating the Authors of Collaborative Work (Cambridge University Press, 2019) was cited by the Court of Appeal (England and Wales) in a recent landmark case on joint authorship: Kogan v Martin (2019) EWCA Civ 1645. She has BCL, MPhil and DPhil degrees from the University of Oxford and a BA/LLB (Hons I) degree from the University of Sydney. Daniela is a Fellow of the Higher Education Academy. Prior to joining academia, she worked as a lawyer in the intellectual property, communications, and technology team in Ashurst’s Sydney office.