UK IPO Artificial Intelligence Call for Views: Copyright and Related Rights

Response of Brunel Law School & Centre for Artificial Intelligence

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The use of copyright works and data by AI systems

1. **Do you agree with the above description of how AI may use copyright works and databases, when infringement takes place and which exceptions apply? Are there other technical and legal aspects that need to be considered?**

Under the current copyright law in the UK, using copyright protected works as data input for AI (artificial intelligence), would constitute an infringement of copyright. The process would involve copying the work and therefore a licence would be required, unless a copyright exception applied.

The analogy of copying someone's work inside a human brain, is not an appropriate way of considering whether copyright protected works are infringed by AI. Aside from the technical inaccuracy of this rhetoric, the metaphor is misleading from a copyright law perspective. This is because, copyright law is not applied to human cognition in the same way that it is applied to technology.[2] In particular, storing a copy of a copyright protected work within AI memory, would constitute copyright infringement under section 17(2) of the Copyright Designs and Patents Act (CDPA) 1988. Metaphorical understanding is an omnipresent principle of language, cognitive understanding and is used particularly in trying to ascertain the relevant landscape of a new technology. However, this approach is inappropriate because in borrowing the understanding from the old or known concept – in this instance human memory – norms connected with that experience are transferred to the new concept – in this instance AI memory. As a result, the metaphorical bridge between the old and the new carries normative behaviour. Suggesting that AI memory is like human memory is to subtly, but significantly, project the norms surrounding the regulation of human memory (which is of course not regulated, but bears Orwellian connotations) onto AI technology. This in turn treats the AI memory as epiphenomenal; largely divorced from the actual structure and function of the technology. Therefore, the IPO should avoid inaccurate and misleading metaphorical rhetoric such as "the view that an AI 'brain' should be treated in a similar way to a human one" when considering the application of copyright law to artificial intelligence.

Using copyright-protected material for the purposes of AI learning, development and creation could be copyright infringement, if done without permission. As such, licensing solutions do need to be considered to enable this type of permission to use works for AI purposes, unless a copyright exception applies. In addition, the discussion of copyright use, infringement, liability and exceptions relating to AI, should also include consideration of associated rights such as in performance and moral rights of the input data. If works produced using AI are protected under section 178 CDPA 1988, it will not benefit from performance or moral rights since there is no author. However, the output work itself may contain copyright, moral or performance rights of others.

[2] For further discussion see Bosher H., Law, Technology and Cognition: The Human Element in Online Copyright Infringement (Routledge, 2020).

2. Is there a need for greater clarity about who is liable when an AI infringes copyright?

The UK IPO identify that the liability for infringement falls upon the responsible person who has control over the infringement. It should be clarified that this applies to legal persons, and that liability is also found under secondary infringement for those who contributed or facilitated the infringement, such as under section 24 CDPA 1988.

AI systems can learn how to process the data rather than committing simply to a rule and creating accordingly. In these circumstances, software developers provide different types of algorithms to the AI and teach it how to process the data.[3] This developing and training phase is absent in traditional software. Therefore, while the programmer can predict the possible outcome of a traditional program, the programmer of AI cannot foresee the outcome of AI. This may mean that the test for infringement in these circumstances needs to be adapted, in that it focuses on the AI 'Producers' (meaning the person responsible) activities (such as data input) rather than the output. As such, should be considered whether, in fact, the liability is for primary or secondary infringement. Particularly since the tests and remedies for primary infringement and secondary infringement are different, such as the need to have known or have reason to believe that an article is to be used to make infringing copies.

3. Is there a need to clarify existing exceptions, to create new ones, or to promote licensing, in order to support the use of copyright works by AI systems? Please provide any evidence to justify this.

It should be clarified in what circumstances the current copyright exceptions apply to AI processes. Particularly since people are often risk averse and avoid relying on these defences due to uncertainty. This is particularly the case when there is no case law to rely upon, such as with the parody exception.[4] Likewise, the UK IPO should consider whether rights-holders are permitted to use contract law to override these copyright limitations.

Further, whether it should also be considered whether or not private agreements could or should be made above or below any policy decision as to the ownership of copyright in AI-generated works. For example, Warner Music signing a record deal with Endel, an algorithm developed by a start-up based in Berlin, that creates tailor-made custom sound frequencies based on personal user inputs such as weather, time of day, location, and biometric details

[3] Joo-Wha Hong and Nathaniel Ming Curran 'Artificial Intelligence, Artists, and Art: Attitudes Toward Artwork Produced by Humans vs Artificial Intelligence' (July 2019) 15(25) ACM Journals.
[4] S Jacques, The Parody Exception in Copyright Law (OUP, 2019).

such as heart rate.[5] In these circumstances, the co-founders and software engineers were listed as songwriters in order to register the copyright of the music. This highlights practical implications for the discussion of ownership of copyright in AI-generated works.

Protecting works generated by AI

5. Should content generated by AI be eligible for protection by copyright or related rights?

Currently, copyright protection for works generated by AI could receive protection under section 178 CDPA 1988, which designates the author of such a work as "the person by whom the arrangements necessary for the creation of the work are undertaken." This is in line with the economic justification for copyright by rewarding the person who has invested in the development of the software that created the output.

The definition of computer-generated works is provided in section 178 CDPA 1988 as meaning that the work is generated by computer in circumstances such that there is no human author of the work. As acknowledged, currently humans are heavily involved in the creation of AI generated works. It might be considered whether in these circumstances the work may be protected more accurately as a work of joint authorship.

In typical machine-learning system there is human involvement and human intervention at a number of points, such as in choosing how to set the system up, which involves the writing and choosing of the algorithm (including which learning models to use); choosing and collating data, which often includes the undertaking of data cleansing or other actions on the data, such as looking at how it is structured; providing feedback; reviewing output; and revising the model.[6] In addition, the data itself is from human-created sources. Therefore, AI systems are highly dependent on programmers, developers and data input through human intervention to train intelligent algorithms.

As to the originality threshold, it seems unlikely that AI can meet the requirement of adding its own 'skill, labour and effort'[7] or use its 'own intellectual creation'[8], expressing its creative abilities in the production of a work by making free and creative choices that includes stamping the work with its own personal touch. However, copyright does protect the other non-original works such as a sound recording. The law should recognise the skill and labour of the humans that build, train and develop the AI.

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[5] Hayleigh Bosher, 'Warner Music Signs Distribution Deal with AI Generated Music App Endel' (IPKat, 2019) < https://ipkitten.blogspot.com/2019/03/warner-music-signs-distribution-deal.html> accessed 13th February 2020.

[6] Toby Bond and Sarah Blair, Artificial Intelligence & Copyright: Section 9(3) (2019) 14(6) JIPLP, 423

[7] *University of London Press v University Tutorial Press* [1916] 2 Ch 601;

[8] *Painer* (C-145/10) ECLI:EU:C:2011:798, paras [88] – [92].

6. If so, what form should this protection take, who should benefit from it, and how long should it last?

The portrait of Edmond Belamy, an AI artwork, sold for $432,500. This shows that the effort behind the AI's creations is worthy of economic award.[9] However, there should be a distinction between AI-assisted works and AI-generated works. The degree of contribution by the AI will of course differ depending on what it is doing. For AI-assisted works, the AI should be considered a tool, or an instrument, in the same way that technology for song production is currently regarded as a tool, and the owner of the sound recording is the person who made the necessary arrangements. Care needs to be taken to ensure that works created by humans with technology as a tool are not captured unnecessarily.

Under UK law, copyright protection for computer generated works lasts for 50 years from the date the work is made under section 12(7) CDPA. It is important to distinguish between human made works on the one hand and AI-generated works on the other. As such, it is appropriate that computer generated works, and therefore AI-generated works, are protected for a shorter duration.

7. Do other issues need to be considered in relation to content produced by AI systems?

Additional rights should be considered such as performance and moral rights. This is particularly important in circumstances of AI systems that are utilising and producing works involving human performance, or 'deep fakes.' The use of AI-generated faces, which appear to be exactly like real human beings, but are in fact not real, is growing.[10] This is particularly in the visual and audio-visual context. The result is that there is a performance but no human performer. Therefore, in these circumstances, the content should not be considered as a performance but a regular visual or audio-visual work, for the purposes of copyright protection.

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[9] https://obvious-art.com/portfolio/edmond-de-belamy accessed 1 September 2020

[10] Siddharth Venkataramakrishnan, After Deepfakes, A New Frontier of AI Trickery: Fake Faces (13 October 2020) https://www.ft.com/content/b50d22ec-db98-4891-86da-af34f06d1cb1 accessed 30 November 2020; Kashmir Hill and Jeremy White, Designed to Deceive: Do These People Look Real to You? (21 November 2020) https://www.nytimes.com/interactive/2020/11/21/science/artificial-intelligence-fake-people-faces.html accessed 30 November 2020.