Law reform essay competition 2024: runner-up GDL

From quill to computer code: a case to repeal the copyright protection currently afforded to AI-generated literature by the Copyright Designs and Patents Act 1988 by Hannah Phillips

Introduction

James Joyce said of the artist that he is 'not a fellow who dangles a mechanical heaven before the public… the artist affirms out of the fullness of his own life. He creates'[1]. In a world increasingly dominated by algorithmic creativity, Joyce's comments remind us that the value of literature lies in its ability to transmute human subjectivity into concrete, expressive form.

This essay argues that copyright is an intellectual property right designed to protect this expression of human intellect and experience.[2] The law is principally set out in the Copyright Designs and Patents Act 1988[3] , with amendments made by European Union jurisprudence during the UK's membership to the EU.

Copyright protection grants the owner exclusive rights to copy, publish, perform, display, or adapt their work.[4] It provides economic benefit to the rights-holder through licensing or assignment, allowing for legal action against infringement.[5]

What is Gen-AI?

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[1] James Joyce, *Stephen Hero,* (1916, New York: B.W. Huebsch), 102;

[2] Lexis+Practical Guidance 'Copyright Subsistence and Qualification' (*LexisPSL IP, Info Law, Life Sciences & TMT Practical Guidance*), 1, https://plus.lexis.com/uk/document/?pdmfid=1001073&crid=0d7932b2-419c-4e35-b835-726cea1d1d77&pddocfullpath=%2Fshared%2Fdocument%2Fpractical-guidance-uk%2Furn:contentItem:55YX-NS31-F18F-K4HW-00000-00&pdcontentcomponentid=128517&pdteaserkey=&pdislpamode=true&pddocumentnumber=1&pdworkfolderlocatorid=NOT_SAVED_IN_WORKFOLDER&ecomp=_t5k&earg=sr0&prid=46e7da1d-94f4-4646-a0cc-93f45e8a03dd accessed 20 June 2024;

[3] Copyright Designs and Patents Act 1988. Henceforth referred to as the CDPA, the Act, or the 1988 Act;

[4] Ibid. Ss 16-26;

[5] Ibid. Ss12(1)-(2), alternatively, Berne Convention for the Protection of Literary and Artistic Works 1886 (as amended on 28 September 1979) art 5(2);

Generative artificial intelligence (Gen-AI) is an algorithmic technology capable of demonstrating human-like intelligence like reasoning and processing natural language. In 2020, OpenAI launched GPT-3, a large language model using 'neural connections' to mimic the human brain's functions. These models are trained on extensive internet data and can generate high-quality, naturalistic text.[6]

Notably within the context of copyright law, using such models does not require expertise in AI; users can achieve high-quality, human-like outputs simply by creating an account and inputting prompts. This accessibility has enabled prolific computer-aided creativity, but at what risk?[7]

Reconciling Copyright Law with Gen-AI

When proposed in 1987, the CDPA was described as 'the first copyright legislation… in the world attempting to deal… with the advent of artificial intelligence'.[8] Accordingly, in the UK, literary creations produced by a computer in situations where there is no human author may qualify for copyright protection[9]. The author is deemed to be the person who has arranged the circumstances necessary for the creation of the work.[10]

In June 2022, the Government published a consultation outcome in which it decided not to amend these provisions, citing no current evidence of harm and the 'nascent' stage of AI development.[11]

This decision to retain copyright protection for AI-generated texts creates a divide between authorship and the creative process. It risks eroding the purpose of copyright protection, traditionally intended to recognise and promote human creativity.[12] Ricketson warns of this in a prescient speech delivered in 1992:

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[6] Lexis+ Practical Guidance, 'AI Glossary' (*Lexis+ Practical Guidance,* 21 March 2021) https://plus.lexis.com/api/permalink/f40e6e69-b955-4ceb-b426-0f5960bb4ab5/?context=1001073 accessed 1 June 2024;

[7] Robert Dale, 'GPT-3: What's it Good for?', *Natural Language Engineering*, 27(1), 113-118, http://dx.doi.org/10.1017/S1351324920000601 accessed 6 October 2024;

[8] HL Deb 12 November 1987, vol 489, col 4643;

[9] CDPA (n 2) S178;

[10] Ibid. S9(3); Statute also protects dramatic, artistic, and musical creations produced in the same manner;

[11] Intellectual Property Office, 'Artificial Intelligence and Intellectual Property: copyright and patents: Government response to consultation' (IPO, 28 June 2022), 7-8 < https://www.gov.uk/government/consultations/artificial-intelligence-and-intellectual-property-call-for-views/artificial-intelligence-call-for-views-copyright-and-related-rights> accessed 27 June 2024;

[12] As evidenced by CDPA's provision of 'moral rights', which remain vested in the author regardless of assignment of the copyright; CDPA (n 3) S78;

> 'One might query whether there still remains much of this "soul" [of copyright] worth protecting…. we should declare that copyright is not really concerned with the protection of the fruits of human authorship, but only concerned with the question of commercial value, however that value is embodied or arrived at.'[13]

The launch of GPT-4 has brought these anxieties into the foreground of public discussion. In a press release published in 2024, the Author's Guild stated:

> 'The growing access to AI is driving a new surge of low-quality sham "books" on Amazon… bad actors are using generative AI to produce "books" that deceive customers and drive sales away from legitimate books.'[14]

The purpose of this essay is thus to demonstrate the inadequacies of the UK's copyright framework to deal with advances in algorithmic creativity. It will be argued that the CDPA inappropriately protects works with minimal human input, eroding the importance of 'authorship' to the creative process, undermining the purpose of copyright protection, and ultimately threatening the status of literature in years to come.

Scope of inquiry

Let us assume that by the term 'AI generated literature', we mean a literary piece which has been created via the following process: A human user inputs a prompt into a deeplearning system such as Chat-GPT. The software produces a stylistically accomplished, high-quality text. Is that text protected by copyright, and if so, who is the author?

Subsistence criteria

The notion of copyright subsistence imposes a test to determine whether the claimed subject matter is worthy of protection. The CDPA affords such protection to an 'original literary work'.[15]

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[13] Sam Ricketson, 'People or Machines: The Berne Convention and the Changing Concept of Authorship' (Delivered at the Manges Lecture at Columbia Law School) [1991] 16 Colum. VLA J.L & Arts, 11;
[14] The Author's Guild, 'AI Is Driving a New Surge of Sham "Books" on Amazon' (*The Author's Guild*, 15 March 2024) https://authorsguild.org/news/ai-driving-new-surge-of-sham-books-on-amazon/ accessed 20 July 2024;
[15] CDPA (n 3) S1(1)(a);

The CJEU case *Levola v Smilde* is authoritative in defining a 'work' for the purposes of copyright. A piece must be 1. the result of 'intellectual creation';[16] 2. the expression of such creation;[17] 3. and its subject matter must be sufficiently objectively identifiable with clarity and precision.[18]

Given that *Levola* was decided before IP completion day, it has become EU assimilated case law, and thus remains heavily persuasive to the UK domestic courts.[19]

Originality and authorship

The first requirement to qualify as a 'work' as expressed in *Levola* is that the piece must be the result of the author's 'intellectual creation'. This criterion elides the concept of a 'work' with the CJEU conception of originality as articulated in *Infopaq.*[20] Originality is not concerned with whether the work is 'inventive… or unique', but rather with the 'relationship between the author or creator and their work...the input [they] contributed to the resulting work'.[21]

Elaborating on the *Infopaq* test, the CJEU later held that a work will be the 'intellectual creation' of its author if it 'reflects the author's personality'. This will be the case if the author 'was able to express his creative abilities' in producing the work 'by making free and creative choices'.[22]

Elsewhere, the CJEU emphasised that originality requires the author to imbue his 'personal touch' by making 'free and creative choices' during the work's production.[23] Two concepts emerge from these judgements: 1. that originality is the expression of personality, 2. that such an expression of personality is the result of free choices made by the author.

The EU originality test has since been implemented by the UK domestic courts. Citing *Infopaq,* the Court of Appeal held that the 'author was able to express their creative abilities in the production of the work by making free and creative choices', to stamp the work with their 'personal touch', making it their 'intellectual creation'.[24]

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[16] C-310/17 *Levola Hengelo BV v Smilde Foods BV* [2018] ECLI:EU:C:2018:899 [36];
[17] ibid [37];
[18] ibid [40];
[19] European Union (Withdrawal) Act 2018 S6 as amended by the REUL(RR)A 2023;
[20] Case C-5/08. *Infopaw International A/S v Danske Dagblades Forening* [2009] ECR I-6569 [46];
[21] L. Bently, B. Sherman, D. Gangjee, P. Johnson, *Intellectual Property Law* (6th edn, OUP 2022) 101;
[22] Case C-145/10 *Eva-Maria Painer v Standverlags GmbH* [2011] ECR 2011- 00000 [86]-[88];
[23] Case C-604/10 *Football Dataco Ltd and Others v Yahoo! UK Ltd and Others* ECLI:EU:C:2012:115 [38];
[24] *Wright v BTC Core* [2023] EWCA Civ 898 [55];

The above discussion has highlighted that the 'originality' requirement is concerned with the nature of the relationship between the author and his work. Accordingly, it is necessary to define what is meant by an 'author' for the purposes of copyright.

The CDPA is fairly limited in its definition of authorship, but as Bently et al. note 'in order for someone to be classified as the author', they must demonstrate that 'their contribution to the work is of a *type and amount* that is protectable by copyright'.[25]- their contribution must be sufficient to bestow the work with 'originality'.[26] This would mean that the person must have contributed to the 'intellectual creation'[27] of the work, by making 'free and creative choices'[28], having an impact on the work's expressive form.[29] Thus, for instance, an amanuensis who merely transcribes verbatim the words of another person, and is under their direction and control, will not be the author of the resultant written work.[30]

Although these requirements seem circular, the emergent central theme is that copyright subsistence depends on the relationship between the 'author', and the 'work'; the existence of an 'author' is a prerequisite for classification as an 'original work', and an 'author' in the legal sense cannot exist without an 'original work' which turns him into such.

Therefore, the issue of whether copyright is a suitable regime to protect gen-AI's literary output turns on the question: Does an 'author' of an 'original work' need to be human?

Algorithmic authorship: EU Perspectives

Given that the UK framework has been so heavily coloured by CJEU jurisprudence in the years preceding Brexit, we shall first examine whether EU principles permit non-human authorship.[31]

EU law does not expressly require that the author of a protectable work of copyright be human. However, the 'anthropocentric focus' of the regime is 'self-evident' [32] Indeed,

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[25] Bently et al. (n 16) 134, their italics;
[26] ibid 136;
[27] *Infopaq* (n 15);
[28] *Dataco* (n 18);
[29] *Levola* (n 11);
[30] *Walter v Lane* [1900] AC 539 (HL);
[31] As we have seen from the originality test deriving from *Infopaq* (n 15), *Dataco* (n 18), *Levola* (n 11);
[32] P. Bernt Hugenholz, Joao Pedro Quintais, 'Copyright and Artificial Creation: Does EU Copyright Law Protect AI-Assisted Output?' (2021) ICC 52(9) 1190-1220, 1196;

the EU's understanding of authorship requires the creator of the work to make contributions that reflect 'free and creative choices'- to confer their 'personal touch'.[33]

Although the CJEU gave no explicit definition of 'personal touch', let us assume that it is synonymous with, or an expression of, an individual's personality. Thus, if we define personality as 'a combination of characteristics or qualities that form an individual's distinctive character'[34], then these requirements implicitly preclude copyright protection for AI-generated works- It is not possible for an algorithm to have a personality as defined above. As Bonadio et al. put it, 'automation… in the form of a machine takeover of the creative process from humans' is 'antithetical to the concept of authorship underpinned by copyright'.[35]

This necessity for human contribution to authorship was reinforced by Advocate General Trstenjak in *Painer*: 'only human creations are… protected.'[36] The Berne Convention also implies this need by requiring that authors are nationals of the Member States of the Union- Nationality can only be granted to human individuals.[37]

Decoding the UK position

Evidently, human contribution is a prerequisite for authorship under EU law. Because qualification as an 'original work' is contingent upon the relationship between the author and their creation, it follows that the originality test also prerequires a *human* author.

However, the UK regime complicates this human-focused understanding of authorship and originality by allowing an exception for 'computer-generated works.' Under S178 of the CDPA, a 'computer-generated work' (CWG) is defined as one created by a

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Hugenholz p1196 https://plus.lexis.com/uk/analytical-materials-uk/copyright-and-artificial-creation-does-eu-cop/?crid=cfe402cb-1eb3-4231-b6ee-10617ba1a364&pddocumentnumber=2 accessed 10 September 2024;

[33] *Dataco* (n 18);

[34] Oxford Languages Dictionary https://www.bing.com/search?pglt=43&q=define+personality&cvid=e1c504c295184689abf9e605e4d1ab2a&gs_lcrp=EgZjaHJvbWUqBggAEEUYOzIGCAAQRRg7MgYIARAAGEAyBggCEAAYQDIGCAMQABhAMgYIBBAAGEAyBggFEAAYQDIGCAYQABhAMgYIBxAAGEAyBggIEAAYQDIICAkQ6QcY_FXSAQg0MjY0ajBqMagCALACAA&FORM=ANNAB1&PC=U531 accessed 17 September 2024;

[35] Enrico Bonadio, Luke McDonagh, Plamen Dinev 'Copyright in Works Created by Artificial Intelligence: Between Creativity and Investments, in Patrick Goold and Enrico Bonaio, eds *The Cambridge Handbook of Investment-Driven Intellectual Property* (CUP 2023) 76;

[36] Opinion AG Trstenjak *Painer* (n 16) [121];

[37] Berne Convention for the Protection of Literary and Artistic Works 1886 (as amended on 28 September 1979) art 3;

computer 'in circumstances such that there is no human author.'[38] In such cases, S9(3) states that the author shall be taken to be the person who has undertaken the arrangements necessary for the work's creation.[39] S9(3) thus creates a legal fiction in which the 'author' is not the creator of the resultant piece. Authorship is disconnected from the creative process itself, and the onus is instead placed on the output of this process.

The first issue with this position is that it is doctrinally incoherent with the assimilated EU test for originality. As Hugenholz puts it, if human authorship is essential for an 'original work', the UK statute suggests that authorship can be attributed to output that would not qualify for protection according to EU copyright standards.[40]

That is, CJEU jurisprudence emphasises that to produce an 'original work', authors must imbue their creations with personality through conscious choices.[41] Generative AI functions via the operation of pre-defined algorithm. This creative process may well produce an outcome which proffers a higher extrinsic market value than literature created by human authors. However, it is a creative process which crucially lacks the emotion, prejudice, mistake, personal preferences and experience necessary for truly personal choices, thus making it doctrinally impossible for a CGW to meet the originality threshold.

Such doctrinal inconsistency also offends the Rule of Law as formulated by Dicey.[42] Where the law is uncertain or imprecise, potential legal implications are not foreseeable. As of 2024, there has only been one case to specifically interpret S9(3), but it has failed to answer the crucial question of locating a workable human author.[43] To retain this provision could therefore result in conflicting judgements, impede the proper development of the law, and ultimately further complicate the relationship between copyright and AI.

Eroding the purpose of copyright

A further corollary of this incoherence is that S9(3) implicitly precludes the need to determine whether a CGW is 'original'. If there is no originality metric to determine subsistence, how do we differentiate between protectable and non-protectable works?

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[38] CDPA (n 3) S178;
[39] CDPA (n 3) S9(3);
[40] Hugenholz (n 26) 1209;
[41] *Infopaq* (n) 'it is…the author's own intellectual creation. No other criteria shall be applied to determine its eligibility for protection.' [6];
[42] A. V Dicey *Introduction to the Study of the Law of the Constitution* (10th edn, Macmillan 1959), 193-199;
[43] *Nova Productions Ltd v Mazooma Games Ltd* [2007] EWHC 24 Civ 219, [2007] FSR20;

So too does it follow: if all CGWs are awarded protection indiscriminately, what, in fact, is the purpose of awarding such protection?

Further, to afford protection to CGWs so indiscriminately threatens to undermine the very purpose of literature. If, as Joyce does, we see the value of art as 'the human disposition of sensible or intelligent matter for an aesthetic end'[44], then this value is entirely lost if algorithmic penmanship is raised to the same status as works by written by human authors. The logical endpoint imagines a dystopia in which AI-generated texts will completely out-crowd works written by human authors- particularly as the quality of the gen-AI literature improves with further advances in the technology.

Mezei highlights this problem by exploring three policy justifications for copyright: the personality, labour, and utilitarian theories. The personality theory argues that authors have deep connections with their works as extensions of their personhood; the labour theory claims individuals deserve rights to the products of their intellectual and physical effort; and the utilitarian theory posits that creators should receive the economic incentives conferred by copyright, because this will motivate them to continue to create, and these creations contribute to the public good.

As Mezei notes, both the 'personality and the labour theory are strictly connected to the individual creator's personal achievements.'[45] Whereas the labour theory focusses on the hard work and effort expended by the creator, the personality theory posits that the creator has an 'intellectual/metaphysical bond to their creation'.[46]

S9(3) creates a divide between creator and author: The creator of the piece will be the computer software, but authorship is attributed to the human person who has not engaged in the creative process. This division means that neither the personality nor the labour theory is an applicable justification for awarding to protection to CGWs. An AI software is not (yet) capable of experiencing an intellectual bond towards their creation, nor do the works directly derive from any author employing 'labour and effort'. Rather, the work is produced by a non-sentient algorithm programmed to create an instantaneous output.

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[44] James Joyce *The Portrait of the Artist as a Young Man* (1916, New York: B.W. Huebsch) 185;
[45] Peter Mezei 'From Leonardo to the Next Rembrandt- The Need for AI-Pessimism in the Age of Algorithms' (2020) UFITA 84(2) 390-429, 401-402 < https://doi.org/10.5771/2568-9185-2020-2-390> accessed 20 September 2024;
[46] Ibid;

The utilitarian theory also cannot justify copyright protection for CGWs. As Gervais puts it: 'if an AI machine is programmed to 'create', it requires no ex-ante legal incentive or ex-post reward for doing so'.[47]

Even so, Denicola contends that 'a work's contribution to public welfare is not dependent on the process that produced it'.[48] On this basis, he reasons that the utilitarian theory is an appropriate justification for awarding copyright protection to works lacking a human author. While this viewpoint has merit, it overlooks the importance of the creator's intent and effort to the purpose of copyright protection. By an equivalent logic, natural phenomena such as waterfalls or flowers should also attract copyright protection, given that they too contribute to 'public welfare'. Human contribution is an essential component of copyright protection because, without it, it is difficult to justify copyright's purpose.

Ultimately, the three principal copyright justifications are inapplicable to CGWs. This position suggests further suggests that S9(3) inappropriately affords protection to AI-generated works.

Counterarguments- Championing Innovation?

A counterargument in favour of retaining copyright protection for CGWs is that it could support AI-driven innovation. This argument is an extension of the incentive theory: Copyright protection is an economic incentive which drives creators to make works using AI. The greater the number of creators making use of AI to create works, the greater the investment in AI systems, thus the greater the innovation. Such was the impetus behind S9(3) in 1987. As stated at the House of Lords Debate for the Bill:

> 'The far-sighted incorporation of computer-generated works in our copyright system will allow investment in artificial intelligence systems… to be made with confidence.'[49]

Yet, in 2024, this reasoning has proved to be a fallacy, as 'investment in AI (and AI-generated works) has taken place in key jurisdictions such as the US, the world leader in the field', despite the clear lack of any provision equivalent to S9(3) in US law.[50] Indeed, the algorithm itself may already be awarded adequate protection elsewhere in the CDPA. As per the IPO, AI-algorithms may be protectable under the patent

[47] Daniel Gervais, 'The Machine as Author', (2020) Iowa Law Review 2053-2106, 2095;
[48] Robert C. Denicola, 'Ex Machina: Copyright Protection for Computer-Generated Works, (2016) Rutgers University Law Review 251-287, 273;
[49] HL Deb (n 5) col 3792 (Earl of Stockton);
[50] Bonadio (n 29) 81;

framework in certain circumstances.[51] Such protection may suffice to drive investment in AI-driven technology, whilst avoiding the pitfalls of doctrinal incoherence and legal uncertainty posed by S9(3). Awarding protection to the literary output of generative AI thus hardly seems to be a necessity for AI-driven innovation.

Furthermore, the incentive argument only functions if there is jurisdictional cohesion. That is, creators will only see copyright protection as an economic motivator if they are confident that their work will be protected in all major jurisdictions. Without this incentive, as the argument goes, there is no increase in investment in AI systems, and thus no increase in innovation. Given its enduring focus on human authorship, it is improbable that the EU would implement a provision like S9(3) without a significant paradigm shift. The US also has no such equivalent. Because the UK is the only major jurisdiction to award such protection, the economic incentive argument in favour of retaining S9(3) is also unconvincing.

Conclusion

Evidently, the UK copyright regime requires reform in light of current changes to the technological landscape. S9(3) of the CDPA creates a legal fiction in which authorship is separated from creativity. This inappropriately awards protection to works in which there has been minimal human involvement. As a consequence, parts of the 1988 Act are doctrinally incompatible with assimilated EU law. Though the UK is no longer required to harmonise with EU standards, protecting works generated solely by a computer also cannot be academically justified; to attempt to do so would be to undermine copyright's purpose. This doctrinal incoherence with assimilated EU principles also introduces legal uncertainty, making these provisions unfit to deal with further advances in technology in years to come. Tellingly, the AI-driven innovation envisaged by the draftsmen of the 1988 Act has been achieved in countries where copyright protection is not afforded to works of computer authorship. Therefore, given the disadvantages S9(3) poses, it is difficult to see the purpose of retaining it.

A feasible solution would be to repeal S9(3) and S178, reverting the scope of copyright protection to the subsistence criteria explored above. Purely computer-generated works would not be awarded protection, but AI-*assisted* works could be, provided that the human role in the creative process is sufficient to satisfy the requirements of an 'original work', and 'authorship' per assimilated CJEU jurisprudence. Only in very limited

[51] Intellectual Property Office, 'Guidelines for examining Patent Applications Relating to Artificial Intelligence', https://www.gov.uk/government/publications/examining-patent-applications-relating-to-artificial-intelligence-ai-inventions/guidelines-for-examining-patent-applications-relating-to-artificial-intelligence-ai Accessed 13 June 2024;

circumstances would an AI-assisted literary output be eligible, with the focus remaining on the role of human contribution to the creative and expressive process. This model would enforce a much-needed balance between driving technological innovation and safeguarding human ingenuity- To preserve the status of the 'author' as the human creator, whose creation is borne 'out of the fullness of his own life'.[52]

Word Count: 2,999

[52] Joyce (1916) (n 1);