

Response form to Open consultation

Artificial Intelligence and IP: copyright and patents

Section A

Copyright – computer generated works (CGW)

1. <i>Do you currently rely on the computer-generated works provision? If so, please provide details of the types of works, the value of any rights you license and how the provision benefits your business. What approach do you take in territories that do not offer copyright protection for computer-generated works?</i>	No.
2. <i>Please rank these options in order of preference (most to least preferred) and explain why.</i>	<p>0 (no change) is my preferred option. Given a choice, I would have preferred a 70 year term for computer-generated works.</p> <p>As a general comment, the IPO reasoning around options 1 and 2 misunderstands how IP works in a market economy. Please see attached commentary in Annex 1.</p>
3. <i>If we introduce a related right for computer-generated works, as per option 2, what scope and term of protection do you think it should have? Please explain how you think this scope and term is justified in terms of encouraging investment in AI-generated works and technology.</i>	<p>By proposing reduced term/protection for computer-generated works, you will disincentivise investment in AI.</p> <p>Please see attached commentary in Annex 1.</p>
4. <i>What are your views of the implications of the policy options and of AI technology for the designs system?</i>	n/a

5. <i>For each option, what are your views on the risk that AI generated works may be falsely attributed to a person?</i>	The greater the discrepancy between the protection that a human-generated work receives and the protection that a computer-generated work receives, the more money will be available to works attributed to human authors, and therefore the greater the incentive to attribute a computer-generated work to a human author.
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Copyright – text and data mining (TDM)

6. <i>If you license works for TDM, or purchase such licences, can you provide information on the costs and benefits of these? For example, availability, price-point, whether additional services are included or available, number and types of works covered by the licence etc.</i>	n/a
7. <i>Is there a specific approach the government should adopt in relation to licensing?</i>	n/a
8. <i>Please rank the options in order of preference (most to least preferred) and explain why.</i>	n/a
9. <i>If you have experience of the EU exception with opt out for rights holders, how has this affected you?</i>	n/a
10. <i>How would any of the exception options positively or negatively affect you? Please quantify this if possible.</i>	n/a

Patents

11. <i>Please rank these options in order of preference (most to least preferred) and explain why?</i>	n/a
12. <i>Would the changes proposed under Options 1, 2 and 3 have any consequential effects on the patent</i>	n/a

system, for example on other patentability criteria?	
<i>For options 1 and 2:</i>	
13. If UK patents were to protect AI-devised inventions, how should the inventor be identified, and who should be the patent owner? What effects does this have on incentivising and rewarding AI-devised inventions?	n/a
14. In considering the differences between options 1 and 2, how important is it that the use of AI to devise inventions is transparent in the patent system?	n/a
15. Would the UK adopting option 2 affect your global patent filing strategy, if so, how?	n/a
<i>For option 3:</i>	
16. What term and scope of protection should a new right offer?	n/a
17. What should the criteria for grant of a new right be and why? Particularly should it:	n/a
a) Replicate the current requirements for a patent?	n/a
b) Set a different bar for inventive step?	n/a
c) Be an automatic or registered right?	n/a

General

18. What role does the IP system play in the decision of firms to invest in AI?	A significant role because IP strengthens the ability to recover revenue.
19. Does the first mover advantage and winner-take-all effect prevail in industries adopting AI? How would this affect the impact of the policy options proposed on innovation and competition?	n/a
20. How does AI adoption by firms affect the economy? Does the use	n/a

<i>of AI in R&D lead to a higher productivity?</i>	
<i>21. Do the proposed policy options have an impact on civil society organisations? If so, what types of impacts?</i>	n/a

Section B: Respondent information

A: Please give your name (name of individual, business or organisation).

████████████████████ ████████████████████

B: Are you responding as an individual, business or on behalf of an organisation?

3) Individual ██

C: If you are responding on behalf of an organisation, please give a summary of who you represent.

D: If you are an individual, are you?

3) A law professional

E: If you are responding on behalf of an organisation, are you?

N/a

F: If you are responding on behalf of a business or organisation, in which sector(s) do you operate? (choose all that apply)

N/a

G: How many people work for your business or organisation across the UK as a whole? Please estimate if you are unsure.

Fewer than 10 people

H: The Intellectual Property Office may wish to contact you to discuss your response. Would you be happy to be contacted to discuss your response?

Yes

I: If you are happy to be contacted by the Intellectual Property Office, please provide a contact email address.

██

J: Would you like an acknowledgement of receipt of your response? Yes

Annex 1

Detailed Response

Consultation on AI and IP legislation: the UK government loses the plot in relation to copyright.

The UK government's National AI Strategy intends "to make [AI] technologies central to [the UK's] development as a global science and innovation superpower", and "will signal to the world our intention to build the most pro-innovation regulatory environment in the world".¹ Although the National AI Strategy is primarily focussed on creating the infrastructure on which AI success will be built, it is clear that its success will depend on the private sector's entrepreneurs and investors, and the UK government intends to introduce "new laws [which] will advance the UK's gold-star reputation as an attractive place to invest."²

One of the short term objectives of the National AI Strategy is an assessment of the existing copyright and patent regimes in the light of AI. In March 2021 the government called for views (Call For Views), and in October 2021 put forward, and invited responses in relation to, a number of proposals to change the existing laws of copyright and patents (Consultation).

The Consultation asks for responses on three distinct areas: copyright, text and data mining, and patents. This Opinion looks only at the proposals in relation to copyright. In relation to copyright, the UK government has made clear, both in the framing of the Consultation and in its response to the Call For Views, its preference for how the existing copyright regime should be amended.

We agree that ordinary copyright appears to offer adequate protection where a creator uses AI as a tool and the work they create expresses human creativity. But where a work is created by a computer without human creative input..... the rationale for its protection – in particular the incentive effect – is not the same as that for human-authored works. In view of this, there may be a case for more limited protection, or no protection at all.

We also appreciate concerns that mass-produced works generated by AI could devalue human creators and agree that we should not undermine copyright's central role in rewarding artistic expression and talent.³

Unfortunately, it is clear that the government has little understanding of how IP works in a market economy, and even less understanding of economics. As a result, the government is proposing measures which, if implemented, are likely to reduce private sector investment in AI and directly work against the UK's ability to remain at the forefront of AI innovation.

¹ <https://www.gov.uk/government/publications/national-ai-strategy>.

² <https://www.gov.uk/government/news/new-and-improved-national-security-and-investment-act-set-to-be-up-and-running>.

³ <https://www.gov.uk/government/consultations/artificial-intelligence-and-intellectual-property-call-for-views/government-response-to-call-for-views-on-artificial-intelligence-and-intellectual-property>.

The UK Government's proposals

The UK is unusual amongst national copyright systems in that it already allows computer-generated works to be the subject of copyright, subject to a term of 50 years (as opposed to the standard term for copyright of 70 years).⁴ The first owner of a computer-generated work is the person that makes the arrangements necessary for the creation of the work (ie. the entrepreneur).

The UK's copyright regime also makes a distinction between literary, dramatic, musical and artistic works (LDMA works), which have to be original to qualify as copyright works,⁵ and films, broadcasts and sound recordings which have no requirement of originality and which, as a result, are often referred to as the "entrepreneurial" copyrights.

The Consultation paper makes a distinction between works which are created with the assistance of AI (AI as a tool), and works which are created by AI without any creative input from a human actor (AI Works, or computer-generated works). Presumably what is envisaged in relation to AI Works is a human actor who purchases (or develops), houses and maintains the AI system (or pays someone to do so), and who sets the parameters for the work that the AI System will produce. In other words, sitting behind any AI Works being produced is an entrepreneur.

In relation to the entrepreneurial copyrights (films, broadcasts and sound recordings), no changes are proposed by the Consultation paper.

In relation to LDMA works created with the assistance of AI, no change to the existing regime is proposed.

In relation to LDMA works created by AI without human creative input, the Consultation puts forward three options:

Option 0: no change to the present regime. Computer-generated LDMA works would continue to benefit from the present copyright together with a term of 50 years.

Option 1: No protection for computer-generated works. Computer-generated LDMA works would no longer be protected by copyright. (The entrepreneurial copyrights would continue to be protected by copyright even if made entirely by AI).

Option 2: A new right of reduced scope/duration. Computer-generated LDMA works would have a reduced term (5 years is proposed), and probably a reduced scope of protection. (The entrepreneurial copyrights would continue to be protected by copyright even if made entirely by AI).

It is noteworthy that there is no consultation on the obvious fourth option: extend the term of computer-generated LDMA and entrepreneurial works to 70 years, so as to match the term for entrepreneurial works which are not computer-generated.

Analysis

In its approach to the interaction of AI and IP, the government reveals a number of critical mistakes in its understanding of how IP works in a market economy. The first of these is its failure to understand the role of property.

⁴ There is an inherent contradiction between the requirement for a work to be an author's own intellectual creation (the EU definition of originality) and a work being computer-generated. This is touched on later.

⁵ Originality is not defined in the Copyright, Designs and Patents Act 1988, but by virtue of EU laws it now means that the work in question must be the author's own intellectual creation.

So, to begin at the beginning: the primary role of property – both intellectual property and non-intellectual property – in a market economy is to provide a more efficient access to the market to the thing itself. What do I mean my *more efficient*? Well, imagine that overnight property in apples has been abolished. If you are an apple farmer, the first thing you will do is to hire security guards to protect your orchards. You will then hire additional security to help you get your apples to market. Apple resellers will in turn adopt additional security to protect the apples they have bought for resale, and so on. The conferring of the status of property – *propertisation*, for want of a better word – reduces the producer's costs of bringing the product to market by providing state-sponsored protection (ie. the system of property), and this is true of both intellectual property and non-intellectual property.

To recap: the primary role of copyright in a market economy is to provide a more efficient access to the market to the work itself. It is important to note that access to the market, and the advantages of propertisation, are not limited to the moment of creation of the work. On the contrary, they apply throughout the downstream lifecycle of the work (distribution, resale, licensing), and the actual or anticipated success of the downstream exploitation has a direct impact on the valuation of the work.

Working backwards, that means that copyright itself is not a reward: the reward (if any) is the profit that can be made on the market from the downstream exploitation. This might seem to be a small distinction, but it is fundamental to any coherent system of property. It is fundamental because, once you mistake propertisation (ie. the conferring of property, in this case copyright) for the granting of a reward, the next step is to use the legal system to make a distinction between those products that deserve to be rewarded and those products that do not deserve to be rewarded. In other words, the legal system becomes the arbiter of value. This is doubly wrong: firstly, because the legal system is ill-suited to be an arbiter of value, secondly because we have, in the market, a mechanism that is ideally suited to be an arbiter of value.

Unfortunately, the consultation paper falls into the reward trap. Some examples: “This consultation looks at the IP rights of patents and copyright, which *reward*....”; “From an economic perspective, some argue that copyright protection for computer-generated works is excessive...because computers do not need to be *rewarded* to produce new content”.

The conflation of propertisation and reward is a fundamental mistake. There are a number of variants to the reward trap, and the government falls into most of them. The most common variant of the reward trap is correlation of merit to costs of development, and then on to the extent and term of propertisation: the higher the costs of development, the greater the merit; and therefore the more extensive the propertisation (and vice versa obviously).

The example of the database right provides a useful example of this. As we all know, the database right only comes into existence if you have made a substantial investment in the obtaining, verification or presentation of the database. Now, try out this thought experiment. Imagine two companies, Company A and Company B. By chance, both companies develop exactly the same dataset, Dataset X. Company A used a substantial investment to develop Dataset X: the database right applies to its version of Dataset X. Company B used a less than substantial investment to develop its version: it does not get the database right. Which is the more efficient producer, Company A or Company B? Answer: Company B, because it used less than substantial investment to create its Dataset X. Therefore, the more efficient a producer you are, the less likely it is that your dataset will be protected by the database right.

Clearly, this is total nonsense, but it is a nonsense that is easy to fall into if you believe that copyright is a form of reward. It is also a nonsense that permeates the Consultation paper and the government's response to the Call for Views. Here are some extracts from the

Consultation paper. To make the point clearer I have also provided a clarificatory reading for each extract.

*The duration of protection of works would be chosen **to reflect the effort or investment put into their creation**.... [emphasis added]*

Read: the more efficient the producer/creator (ie. the less effort expended in the creation), the less likely she/he is to receive legal protection for the work created.

*a shorter term of protection, for example 5 years, could be considered. The duration would aim to reflect the capacity of computers **to generate works quickly**, with little effort or human input. [emphasis added]*

Read: the more efficient the producer/creator (ie. the quicker the works are created aka the less effort expended in the creation), the less likely she/he is to receive legal protection for the work created.

*We also appreciate concerns that **mass-produced works** generated by AI [emphasis added]*

Read: the more efficient the producer/creator (ie. the lower the costs of production), the less likely she/he is to receive legal protection for the work created.

All these examples show the legal system being used as an arbiter of value. The smaller the costs of development, the less the perceived value, and therefore (the mistaken logic continues) the less protection should be provided. Unfortunately, as any business person knows, there is no correlation between costs of development and value in the market. What is even more shocking, and what demonstrates the government's limited grasp of economics, is that reduced costs of production are seen as a bad thing. Given that one of the primary benefits of technology is often reduced costs of production, and this Consultation is part of a national strategy to ensure that the UK stays at the forefront of technology, this is about as bizarre as it gets.

The mistakes do not end there. The government has a view of the economic operators in the (copyright) market which bears little relationship to the real world.

*But where a work is created by a computer without human creative input,..... the rationale for its protection – **in particular the incentive effect** – is not the same as that for human-authored works.⁶ [emphasis added]*

This passage assumes that human authors are incentivised either by the desire to obtain the copyright in the works they create (the reward trap, discussed above) or by the financial returns that will result from exploitation of the work they have created. But behind both scenarios is the assumption that the copyright creator is an independent individual owning the copyright works that she/he creates. In fact, nothing could be further from the truth. Only 15.3% of the UK's workforce are self-employed:⁷ the remaining 84.7% are employees and the ownership of the copyright works they create will vest in their employers. Of the 15.3% that are self-employed, it is likely that a large percentage are working to commission and are

⁶ <https://www.gov.uk/government/consultations/artificial-intelligence-and-intellectual-property-call-for-views/government-response-to-call-for-views-on-artificial-intelligence-and-intellectual-property>.

⁷ <https://www.ethnicity-facts-figures.service.gov.uk/work-pay-and-benefits/employment/self-employment/latest>.

operating under arrangements which, impliedly or expressly, transfer the ownership of the IP they create to the person that commissioned them.

The simple fact is that, in the vast majority of scenarios, the picture of the human author creating - and owning - the work they have created, is a myth. Contrary to the UK's government's assertion, the incentive effect applies in exactly the same manner to human-authored works and computer-generated words because, in both cases, the person receiving the copyright (and the financial rewards), is the entrepreneur. Part of the problem in the government's thinking is that it believes that AI systems are somehow independent, not run by legal or natural persons.⁸ This is clearly not the case.

Two further comments are worth making on the issue of "incentive". Firstly, even in the limited scenario of the human author that owns and exploits the copyright she/he creates, the solitary artist model implicitly espoused by the government is not necessarily representative. The artist Geoff Koons reputedly has a team of 150 working for him.⁹ The artist Damien Hirst recently made 63 members of his team redundant while claiming £15m in government Covid-19 loans.¹⁰

Secondly, if as suggested above, the "*rationale for...protection – in particular the incentive effect*" is the preserve of works which, because of the requirement of originality, are human-authored, where does that leave the entrepreneurial works, such as film and broadcasts, which have no legal requirement for a human author? Given that film and broadcast are thriving industries, one can assume that there is something flawed in the government's analysis.

The government's Proposals 1 and 2 (no protection for AI works, 5 years protection for AI works) advocate proprietisation based on the means of production: if the work is produced by a human authors, it gets proprietisation A; if it is produced without a human author, it gets proprietisation B. This, according to Proposals 1 and 2, will be the case even if it is impossible to tell whether the work in question is produced by man or machine, and will even be the case if, as may happen, the works are identical.¹¹ To give some context on this, equivalents for physical products would be: different forms of property for a table, depending on whether the table was made by machine or made by hand; or different forms of property for a loaf of bread, depending on whether the loaf was baked or steamed.

This kind of distinction might make sense on policy grounds if, for example, means of production A imposed a high cost on the environment whereas means of production B did not. However, no such policy arguments have been put forward other than (and then in vestigial form) that AI works may be cheaper to produce than human-authored works and, as a result, consumer demand may shift away from human-generated works to computer-generated works with a resulting negative economic impact on human authors. But every technology which provides cheaper means of production has a negative impact on those using the older means of production, from weaving by hand being replaced by the Spinning Jenny to Fleet Street hot-metal Linotype method being replaced by digital composition (670 printers were needed to produce a newspaper using the new technology, compared to 6,800 printers using the old technology). It is perverse to see such a Luddite argument being advanced as part of the National AI Strategy.

Finally, to add more perversity, the National AI Strategy will only be successful if private investors are willing to invest. Private investors will only invest in the creation of AI systems if

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¹¹ A thought experiment: at the same time, but independently, a human author and an AI system each create a poem. The two poems are identical to each other. According to the government's Proposals 1 and 2, the two poems, though identical and indistinguishable, would attract separate forms of property.

those AI systems can justify a price to its buyers/licensees which results in a good return to the investors. In turn, the price that an AI system can charge to its buyers/licensees will depend directly on the return that those buyers/licensees can make from their use of the AI systems. If the returns which those buyers/licensees can make is reduced because the products that the buyers/licensees produce using the AI systems have limited property rights (see Proposals 1 and 2), then those reduced returns will impact directly on the primary investors and reduce the investment they are likely to make. So, on the one hand, the UK government wants to “make [AI] technologies central to [the UK’s] development as a global science and innovation superpower”. On the other hand, it proposes to limit the returns available to investors.

You could not make this up if you tried.