

UK IPO – AI and IP Public Consultation Response Form

When you are ready to submit your response, please email this form and any other supporting documentation to Alcallforviews@ipo.gov.uk.

The closing date for responses is at 23:45 on 7 January 2022.

The options for computer generated works, text and data mining and patent inventorship are summarised in the following tables.

Computer generated works	
Option 0	Make no legal change
Option 1	Remove protection for computer-generated works
Option 2	Replace the current protection with a new right of reduced scope/duration

Text and Data Mining (TDM)	
Option 0	Make no legal change
Option 1	Improve licensing environment for the purposes of TDM
Option 2	Extend the existing TDM exception to cover commercial research and databases
Option 3	Adopt a TDM exception for any use, with a rights holder opt-out
Option 4	Adopt a TDM exception for any use, which does not allow rights holders to opt out

Patent Inventorship	
Option 0	Make no legal change
Option 1	“Inventor” expanded to include humans responsible for an AI system which devises inventions
Option 2	Allow patent applications to identify AI as inventor
Option 3	Protect AI-devised inventions through a new type of protection

Section A

Copyright – computer generated works (CGW)

Consultation questions

1. *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?*

ACT | The App Association members rely on the computer-generated works provision for a variety of works and values of licensing rights.

2. *Please rank these options in order of preference (most to least preferred) and explain why.*

Most preferred: Option 0, make no legal change.

In the status quo, copyright protects computer-generated works (CGW) where no human creator exists for 50 years from the date of the work's creation. The person who undertook the necessary arrangements to create the work is the 'author' of the computer-generated work. This provision makes sense, as many AI users, developers, and businesses rely on CGW copyrights. For example, considering a person choosing the data an algorithm uses, the App Association believes that such a scenario could be sufficient to qualify for copyright protection when meeting the thresholds for copyrighting and data selection within a compilation, which some copyright laws enable (notably, requiring creativity in the data selection). We consider the ability for a person to remain the 'author' of the work an incentive to generate new work and invest in AI technology.

However, judicial precedent may need to evolve to address scenarios where an AI process creates a work that infringes a copyrighted work. Should case law demonstrate that revisions to copyright protections are necessary, the App Association would support such an effort to ensure the fair application of copyright to emerging use cases that involve AI.

Second-most preferred option: Option 2: Replace the current protection with a new right of reduced scope/duration.

Option 2 is feasible as it would provide a new type of protection for computer-generated works. This option would preserve the 'author' concept in its current form but would shorten the term of protection which could benefit third parties who want to use the work. Given the speed at which AI is advancing, shortening the term of protection could be feasible to balance rights holders' and third parties' interests. Where AI has been a tool to assist a human creator, the work would fall under general copyright, which we support. We believe this option would continue to incentivise production and investment in AI technologies.

Least-preferred option: Option 1: Remove protection for computer-generated works.

We urge the IPO not to remove computer-generated works protections entirely. Works generated by a computer should continue to be protected by copyright while identifying the person who made the necessary arrangements as the 'author'. Similarly, AI-assisted works with a sufficient level of human intellectual creativity should continue to be protected. As stated above, we believe granting copyrights for computer-generated works incentivises their production and AI investment, which makes Option 1 our least preferred option.

3. *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.

A fair and consistent intellectual property framework is crucial to protect companies' investments, to help attract venture capital, to establish and maintain a competitive position in the marketplace, and level the playing field dealing with established companies and competitors. Therefore, any scope and term of protection must preserve this environment. We understand that shortening the current term of 50 years may help to balance rights holders' and third parties' interests, but the example of five years seems too short. To ensure that the term allows rights holders to benefit from their creation and incentivises new AI development, we suggest a term of 10 years.

4. What are your views of the implications of the policy options and of AI technology for the designs system?

AI has significant implications for the designs system (which resemble the implications for the copyright system). UK law on registered and unregistered designs already includes similar provisions on CGW to those in copyright law, and we recommend a consistent approach across copyright and design laws, consistent with our recommendations above with respect to copyright.

5. For each option, what are your views on the risk that AI-generated works may be falsely attributed to a person?

The App Association believes IPO should conduct additional consultations and studies while also allowing the technology to further develop before determining who is the author of a literary or artistic work generated autonomously by AI. Inevitably, a natural person must be responsible for a work for it to qualify as a work of authorship under certain countries' existing copyright law and policy. Copyright law, including the options listed in the consultation document, should provide that it will register an original work of authorship only when that work was created by a human being. Any determinations regarding when and by whom authorship exists in a work autonomously created by AI may represent a drastic shift in law and policy. The law may need to first address definitions of AI personhood and AI itself (and such definitions and general policies would be inappropriate to make in the context of intellectual property rights reform).

Concerning the risk of wrongly attributing AI-generated works to a person, we believe Option 1 would present the highest risk as it removes the protection for CGWs entirely.

Copyright – text and data mining (TDM)

6. 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.

App Association members license works for TDM and purchase TDM licenses across a wide range of use cases. We defer to the experiences and data of specific member companies in providing information requested on availability, price-point, whether additional services are included or available, number and types of works covered by the licence.

7. *Is there a specific approach the government should adopt in relation to licensing for TDM?*

The UK's existing approach to TDM, and its copyright exception for TDM, generally seem to provide a balanced approach that benefits all stakeholders. We recommend further study before making changes to this area of the law. Any changes should be based on a strong evidence base, and not edge or hypothetical use cases.

8. *Please rank the options in order of preference (most to least preferred) and explain why.*

1. Policy Option 0 – make no legal change
2. Policy Option 2 – extend the existing TDM exception to cover commercial research and databases
3. Policy Option 3 - Adopt a TDM exception for any use, with a rights holder opt-out
4. Policy Option 1 - Improve licensing environment for the purposes of TDM
5. Policy Option 4 - Adopt a TDM exception for any use, which does not allow rights holders to opt out

9. *If you have experience of the EU exception with opt out for rights holders, how has this affected you?*

n/a

10. *How would any of the exception options positively or negatively affect you? Please quantify this if possible.*

n/a

Patents

11. *Please rank the proposed policy options in order of preference (most to least preferred) and explain why?*

Most preferred: Option 0 – make no legal change.

For patentability purposes of inventions solely developed by AI, the App Association would not consider the machine as an inventor, and we agree that naming a machine as an inventor does not meet the requirement in the Patents Act 1977 that a natural person must be identified as the inventor.¹ Instead, the inventor would be the machine

¹ Appropriately, the UK courts share this interpretation. See *Thaler v The Comptroller-General of Patents, Designs And Trade Marks* [2020] EWHC 2412 (Pat).

programmer. Machine programmers created the AI to resolve a human-defined issue that could not have been produced without human questioning. We do not believe that future inventions would be discouraged if AI cannot be credited as the inventor or that innovations developed using AI would be impacted by AI not being credited as the inventor. Baseline AI inventions can be delineated, declared, and evaluated in a way equivalent to software inventions. Therefore, no disputes arise with traditional methods of patent owners declaring and disclosing specific practices of their AI invention. Thus, the App Association sees no new and significant challenges that arise with this type of AI invention and significant patentability requirements.

Least preferred: Options 1 and 2

In examining these options, we encourage the IPO to determine what it considers an ‘inventor’ and what will be necessary to determine if an AI technology is patentable. We tend to view AI inventions as tools that we can utilise in a variety of applications. Individuals who contribute to the conception, training, or applications of the AI may all receive consideration as AI inventors. However, determining the specific person who should hold the patent rights will be based on the facts surrounding the AI invention or application. The IPO should recognise these issues and carefully examine them in its AI-related efforts.

12. Would the changes proposed under Options 1, 2 and 3 have any consequential effects on the patent system, for example on other patentability criteria?

Some AI patent invention use cases will be more complicated due to the complexities that arise from AI machine learning (ML). The inability to demonstrate how the results of machine learning came about contributes to the confusion of how machine learning should be handled in the context of patent protections. AI patent evaluators may face greater obstacles when looking at claim and disclosure requirements. Despite this concern, the App Association recognises that if an AI patent applicant can (1) make use of and (2) show proof that they possessed the invention at the time of filing then the patent may still be granted.

Generally, applicants with complicated or complex AI inventions should seek alternative ways of describing their inventions to meet relevant patent eligibility requirements. After producing an AI invention there may be multiple applications of the AI within the sector. Inventors may find alternative uses to solve a different problem or to build from the AI to create a different invention. As such, technological advancements using AI applications should be evaluated for their patentable characteristics and purpose as opposed to recognising a former AI invention claim. The App Association is confident that existing laws, including the Patents Act 1977, can address these patent applications with AI components due to past experience with computers and the internet having many additional applications. We urge the IPO to assess past experiences to arrive at conclusions based on concrete foundations (as opposed to edge use cases).

The IPO should consider a variety of elements when evaluating and determining an AI invention's patent eligibility. Elements that deserve consideration during the patentability process include (1) the data that will train the AI; (2) the algorithm; (3) the method of training the algorithm; and (4) the outputs produced from the AI application. The IPO should use the existing requirements for software patentability as a starting point to identify necessary elements of patentable AI inventions and applications.

For options 1 and 2:

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?

The IPO's examination should evaluate what it considers an 'inventor' and what will be necessary to determine if an AI technology is patentable. We tend to view AI inventions as tools that we can utilise in a variety of applications. Individuals who contribute to the conception, training, or applications of the AI may all receive consideration as AI inventors. However, determining the specific person who should hold the patent rights will be based on the facts surrounding the AI invention or application. The IPO should recognise these issues and carefully examine them in its AI-related efforts. The potential effects of such a policy change on incentivising and rewarding AI-devised inventions should be carefully studied.

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?

A categorisation of AI-devised inventions is crucial, and the IPO should generate a transparent differentiation of the various forms of AI inventions. The App Association places AI inventions into three overarching categories: (1) a primary AI invention; (2) an alternative application of an AI invention; and (3) inventions developed solely by AI. The App Association considers the first category to be the baseline AI invention, the second group contains applications of AI to additional contexts, and the final grouping is meant to demonstrate unpredictable outcomes produced by AI itself. We thus consider AI to be mostly a tool for human inventors to use.

A baseline AI invention is AI technology used to improve machine capability or work as an algorithmic method. These inventions can be delineated, declared, and evaluated in a way equivalent to software inventions.

An alternative application of an AI invention is machine learning (ML). ML occurs when a computer is taught to learn and react without direct instructions being programmed by design. In contrast to an AI algorithm, machine learning uses data analysis to produce analytic or mathematic models that may not be in a format that is digestible for human beings.

The final category of AI is an invention solely developed by a machine and has no human involvement. A human inventor cannot directly be identified.

15. *Would the UK adopting option 2 affect your global patent filing strategy, if so, how?*

Because it is a significant shift in policy, Option 2 could have a large impact on App Association members' global patent filing strategy. Our small business members have limited resources and must carefully and strategically execute their patent filings. The impacts of such a policy change are difficult to predict but will likely place high costs on the small business community as it seeks to realign its design and legal processes and strategies, and to fit the UK into its patent filing strategy.

For option 3:

16. *What term and scope of protection should a new right offer?*

The App Association believes that precedent may need to evolve to evaluate whether a new right is necessary and what constitutes a feasible term and scope of protection. We do not believe this is a shortcoming of patent law, but instead, a result of rapidly evolving technology. Future law and policy decisions may decide disputes that arise. However, should case law demonstrate that a new patent right is necessary, the App Association would support such an effort to ensure the fair application of patents to emerging use cases that involve AI.

17. *What should the criteria for grant of a new right be and why? Particularly should it:*

a) Replicate the current requirements for a patent?

The App Association does not believe that a new right is necessary at this time. However, should a new right be created nonetheless, we agree that it should replicate the current requirements for a patent.

b) Set a different bar for inventive step?

The App Association does not believe that a new right is necessary at this time. However, should a new right be created nonetheless, we do not recommend it set a different bar for inventive step.

c) Be an automatic or registered right?

The App Association does not believe that a new right is necessary at this time. However, should a new right be created nonetheless, we urge for the same approach to the right as under existing UK patent law.

General

18. *What role does the IP system play in the decision of firms to invest in AI?*

Patents offer a key protection of ingenuity and may provide a return on investment in research and development. We thus believe the IP system can influence firms' decisions to invest in AI. With the increased complexity of technology and products such as AI that may cover thousands of patents, a balanced and efficient patent system is also key for the UK's competitiveness and its global technology leadership. A fair and consistent intellectual property framework, including patents, is crucial to protect companies' investments, to help attract venture capital, to establish and maintain a competitive

position in the marketplace, and level the playing field dealing with established companies and competitors. This role of the patent system applies to the development and use of AI just as it does to other technologies. The App Association urges the UK IPO to recognise that its approach to AI should prioritise providing reasonable and technology-neutral protections as well as enabling AI tools to prevent and address IP infringement.

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?

20. How does AI adoption by firms affect the economy? Does the use of AI in R&D lead to a higher productivity?

We recognise that the rise of AI holds great promise, yet also generates many legal and policy questions, including those around IP. Whether AI leads to higher productivity in R&D or what impact AI adoption might have on the economy depends largely on the specific AI application and its utilisation.

21. Do the proposed policy options have an impact on civil society organisations? If so, what types of impacts?

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?

- 1) Business – please provide the name of your business
- 2) Organisation – please provide the name of the organisation
- 3) Individual – please provide your name

Organisation: ACT | The App Association

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

The App Association represents more than 5,000 small business software application development companies and technology firms across the mobile economy. Our members develop innovative applications and products that meet the demands of the rapid adoption of mobile technology and that improve workplace productivity, accelerate academic

achievement, monitor health, and support the global digital economy. Our members play a critical role in developing new products across consumer and enterprise use cases, enabling the rise of the internet of things (IoT).

D: If you are an individual, are you?

- 1) General public
- 2) An academic
- 3) A law professional
- 4) A professional in another sector – please specify
- 5) Other – please specify

N/A

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

- 1) An academic institution
- 2) An industry body
- 3) A licensing body
- 4) A rights holder organisation
- 5) Any other type of organisation - please specify

An industry body.

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

- 1) Agriculture, forestry and fishing
- 2) Mining and quarrying
- 3) Manufacturing – Pharmaceutical products
- 4) Manufacturing – Computer, electronic and optical products
- 5) Manufacturing – Electrical equipment
- 6) Manufacturing – Transport equipment
- 7) Other manufacturing
- 8) Construction
- 9) Wholesale and retail trade; repair of motor vehicles and motorcycles
- 10) Transportation and storage
- 11) Information and communication – Publishing, audio-visual and broadcasting
- 12) Information and communication – Telecommunication
- 13) Information and communication – IT and another Information Services
- 14) Financial and insurance activities
- 15) Real estate activities
- 16) Scientific and technical activities
- 17) Legal activities
- 18) Administrative and support service activities
- 19) Public administration and defence
- 20) Education
- 21) Human health and social work activities

22) Arts, entertainment and recreation

23) Other activities – please specify

G: How many people work for your business or organisation across the UK as a whole?

Please estimate if you are unsure.

1) Fewer than 10 people

2) 10–49

3) 50–249

4) 250–999

5) 1,000 or more

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.

[REDACTED]

J: Would you like an acknowledgement of receipt of your response? Yes/No

Yes.