

## Annex - Response form

After you have read the consultation document, please consider the questions below. There is no expectation or requirement that all questions are completed. You are welcome to only answer the questions that are relevant to you, your business or organisation.

A copy of this response form is available to download from GOV.uk.

There are two sections on this form:

A. Questions arising from this consultation

B. Information about you, your business or organisation

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

<b>Computer generated works</b>	
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

<b>Text and Data Mining (TDM)</b>	
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

<b>Patent Inventorship</b>	
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)

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?*

I am responding to this consultation in the capacity of being the owner of 'RAGHAV' (an abbreviation for 'Robust Artificially Intelligent Graphics and Art Visualizer'), an Artificial Intelligence based Painting Tool that I commissioned in 2019. An artistic work titled '*Suryast*' (which means sunset in Hindi) that I created with the assistance of the AI tool became, perhaps, the world's first registered copyright where an AI tool was acknowledged as a co-author. We filed and obtained registration before the Indian Copyright Office.

The artistic work was based on a photograph I clicked which was provided to the AI tool as content input, and Vincent van Gogh's *The Starry Night* (c. 1889) which was provided as the style input.

(Ref. **Annexure - A** for the registration certificate, the artistic work and the forwarding letter; and **Annexure – B** for a news report that carried this story for the first time).

Since then, we have attempted to use this as a test case and filed applications before the US Copyright Office and the Canadian IP Office, with more jurisdictions in the pipeline. In each of the test applications, we have identified RAGHAV as a co-author along with myself as the other (human) co-author.

In the near future, we propose to make the RAGHAV AI tool available to researchers, students and AI enthusiasts to experiment and experience how AI can not only assist but actively contribute in the creation of quality artistic works that are at par, if not better, than what a human would make by himself. We are also in advance level discussions with third parties who have expressed interest in partnering with the RAGHAV project to create NFTs based on artwork generated with the assistance of the AI tool. Proceeds from some of these NFTs shall be utilised for charitable causes.

2. *Please rank these options in order of preference (most to least preferred) and explain why.*
  1. Most preferred - Option 2
  2. Option 0
  3. Least preferred – Option 1

In case AI generated works are not granted copyright protection, we are disadvantaged at two levels. One, valuable intellectual property rights (created autonomously by or with the assistance of AI) that otherwise meet (or often exceed) the same standards as that of human created works do not receive protection under law, and are thus rendered *publici juris*. Intellectual property forms an important part of a country / economy's intangible assets, which when monetized effectively, can contribute significantly. Works that fall in the public domain cannot be monetized by anyone. In any case, to not render protection to works that are otherwise worthy of protection cannot be the objective of a legislation.

Two, programmers / developers who build AI tools and solutions that produce such outputs do not get incentivized to keep creating more such innovative and useful tools, if the output generated by their tools cannot be protected, and thus, cannot be monetised.

If the provision that renders protection to CGWs was to be removed altogether, all artistic works generated with the assistance of AI would effectively be rendered *publici juris*. In fact, since the present legislative framework does not distinguish between works that have been autonomously generated by AI, with the assistance of AI, or using a passive graphic editing tool such as Adobe Photoshop, anything that has been created using a computer would potentially end up in the public domain and devoid of protection. This approach completely disregards the inputs provided / efforts made by the human author using his/her skills, talent, judgment and experience in the work that is created with the assistance of AI, or generally by a human using a computer.

I am taking the liberty of citing an illustration in support of my argument above. This illustration is more relevant in jurisdictions that follow a copyright regime that allows persons to apply for and seek registration, such as India and the United States. However, since all countries that are a contracting party to the Berne Convention would in any case be obliged to protect and enforce copyright in such works, the illustration assumes relevance in the present context as well.

### Illustration

2 competing graphic artists, Ms. X and Mr. Y work in the same city.

Ms. X is a talented artist who creates her designs / artwork manually using a passive graphics editing tool. Mr. Y develops an Artificial Intelligence program that gets trained on a dataset that comprises of millions of artworks and paintings. Mr. Y's AI program, with appropriate inputs and intervention from Mr.

Y, is able to produce artworks that are of the same quality or better than what Ms. X creates.

Both approach the Copyright Office to protect the artistic works created by them. Ms. X is able to obtain registration for artistic works created by her. Mr. Y, on the other hand, is faced with 2 choices:

(i) His first choice is to apply for registration by nominating the AI program as an author. He is unable to obtain registration since the copyright law, as it stands today, does not permit AI programs to be recognized as authors (or joint authors) of a work.

(ii) His second choice is to apply for Copyright by nominating himself as an author (and in doing so, be made to suppress the fact that it was created with the assistance of the AI program) because his work qualifies to be a CGW, which permits him to nominate himself as the author.

If Mr. Y exercises the first choice, the original artistic work created with the assistance of his AI program, and which arguably may be superior in quality than the one that Ms. X created manually, will be rendered *publici juris*, free for everyone to use / copy.

If Mr. Y exercises the second choice, he will be recognized and credited as the author of an artistic work which he did not create, and for which he probably did not possess the necessary talent, experience or skillset. This may give him an unfair advantage over Ms. X, who is creating her artistic works utilising her own skill, talent and expertise.

Moving a step ahead, let's assume ABC is a game publisher that is looking out for graphic design studios / businesses to acquire. Ms. X and Mr. Y both get shortlisted as potential targets for acquisition, based on the quality of their artworks. The solicitors representing ABC conduct a due diligence on the copyright records, certificates and other legal documents that both parties possess. Given the present legal regime, records and documents identify both Ms. X and Mr. Y as 'authors' of their respective copyrighted artistic works. ABC decides to acquire Mr. Y's business on the above assumption and understanding. Since the present legal regime does not allow an AI to be identified as an 'author', or for a work to be generally identified as a CGW (created with the assistance of AI), Mr. Y cannot be held liable for suppression or misrepresentation of facts. ABC ends up acquiring the business of Mr. Y on the assumption that Mr. Y is a talented human artist, which fact turns out to be untrue.

The law must be amended to remedy this anomaly (and potentially scores of such issues) that stem from the lack of specific provisions to deal with AI generated works under the Act. To begin with, the amendments should

introduce provisions to recognize AI tools / applications as ‘author’ or ‘co-author’, as the case may be. Eventually, since the primary objective of copyright law will always be to reward human skill, effort and talent, the law must be amended to provide for a shorter duration of protection for AI generated works (similar to the case of cinematograph films, sound recordings, photographs, etc. in several jurisdictions) to prevent the owner/operator of an AI tool to obtain an unfair advantage over human authors. Works generated autonomously or with the assistance of AI cannot be put on the same pedestal as a work created by someone who is skilled, technically experienced and has put in efforts (without seeking assistance of AI technology) to create a copyrightable literary, artistic or musical work.

To address the issues of ownership, authorship and infringement, adopting a ‘custodianship’ model is one suggested approach.

Ownership: An easy way to explain this is as follows. The way the apples that grow on an apple tree which stands in my garden belong to me, the output generated by an AI application / tool should belong to its custodian / owner. Therefore, similar to an employee-employer relationship, the economic rights in the output generated by an AI should by default belong to its custodian as its first owner.

Authorship: In a situation where an AI tool is the author (or joint author), and economic rights belong to the person / entity that owns and/or exercises legal control over the AI tool, the scope and extent of ‘authorship’ rights gets drastically reduced. All economic benefits (including the author’s royalty share, if any) would belong to the owner. Moral rights of the author(s) including the AI author would remain intact, and must, for the reasons mentioned in the above submissions. In fact, notably, no harm or prejudice is caused to any third party or to the public at large if an AI tool and a human are identified as joint authors, the said human is the economic owner of the copyright in the work, and is also the lawful custodian / owner of the AI tool. In fact, doing so would ensure the factual position is correctly and accurately reflected.

Infringement: I were to sell the apples from my tree and some of them turn out to be rotten, I would incur liability as I exercise the ultimate discretion or prerogative to utilise and/or monetise those apples. In the same manner, the custodian of the AI tool would (and should) be expected to exercise the final discretion and prerogative regarding publishing, commercialising and/or monetizing an AI generated output, and while exercising such discretion to judge if the output infringes a third party’s rights or not. If the exercise of such judgment results in infringement of a third party’s right, the human custodian should bear the liability.

However, if a custodianship model as explained above were to be adopted, it would be important to consider how and in what manner should a custodian (or a similar term) be defined under the Act. Considering the current state and

accessibility of AI technology, every person/entity may not be in a position to 'buy' or develop one for themselves. Therefore, the law must also consider and provide room for circumstances such as where a person (for instance a musician or an artist) obtains access to an AI tool under license from the developer of such tool, and utilises the AI's capabilities along with their own skill, judgment and expertise to produce quality music or art, much faster and more efficiently than before. At the end, the route that promotes effective adoption and utilisation of technology by humans to make their lives easier must be given preference, while giving no less consideration to incentivising the creators of such technology. This can only be achieved if AI generated output is rendered protection under law.

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.*

Duration / scope of right is commensurate with effort, skill and time taken to produce something. Objective of copyright law is to reward a human for his / her skill, talent and effort. A painting that an artist creates using a graphic editing software, or by hand using a paintbrush and canvas, takes far more time than what an AI would take in producing same or better quality artistic works. Therefore, a reduced period of protection is warranted for such works where the assistance of AI is sought.

4. *What are your views on the implications of the policy options and of AI technology for the designs system?*
5. *For each option, what are your views on the risk that AI generated works may be falsely attributed to a person?*

To disallow an AI app to be identified as a co-author would permit a human being to claim absolute credit for something he / she has not created or does not possess the necessary skillset or capability to produce. This, in turn, would lead to dilution of the definition and concept of an 'author' as enshrined under copyright law, and would run contrary to the objectives of the Act. It would also be detrimental to the rights of those authors who utilise their talent, hard work, skill and experience to produce work that receives protection under the Act as their rights and works would be kept at the same pedestal as someone who has benefitted substantially from the capabilities of technology to create something. The human effort that goes in creating the two kinds of competing works would be enormously disproportionate.

Taking credit for an AI's work would not be unfair to a machine, but it would be unfair to other people who have created something using their skills (and

without the benefit of technology) because it would equate human creativity with someone who utilises a machine's capabilities to produce a work that can be protected under the Act. Therefore, identifying the AI tool as a co-author would inform the public how and by whom the underlying work was created. It will also facilitate appropriate attribution of ownership and chain of title. Both of the above mentioned are responsibilities that the law must aim to discharge in public interest.

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

Subject to my response to question number 8 below, a compulsory / statutory licensing regime may be considered for TDM. The Copyright Office can be granted the power to determine / notify rates of royalty applicable to TDM for different kinds of use. Alternatively, a party may be allowed to apply to the Copyright Office for the determination of royalty rates. The Office can decide after hearing submissions from both the sides. This will ensure AI developers get access to data for TDM purposes at reasonable and non-discriminatory terms, and such access is not unreasonably withheld by a right holder.

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

1. Most preferred - Option 4
2. Option 3
3. Option 2
4. Option 1
3. Least preferred – Option 0

TDM contributes in the development of artificial intelligence, which in more ways than one, mimics (or is made to mimic) human intelligence. TDM performed on a dataset that is published and legally accessible (such as openly over the internet, and not behind paywalls or other Technological Protection Measures) would conceptually be no different to a human being browsing through and processing large amounts of content or data while using a computer, tablet or other mobile device, throughout his lifetime. Thus, a human being's skill, abilities and intelligence are a consequence of his life's

experiences, which in one sense is an outcome of the data, information and other stimuli his brain was exposed to. Therefore, depending on for how long and what kind of TDM an AI tool is trained on, each AI will develop its own, unique intelligence 'fingerprint'. If human beings are not expected to pay for processing the data and information that our brains get exposed to, which eventually influences our abilities, skills and our unique style of output, use of data for TDM purposes to train AI should be made a blanket exception.

Opting out should not be permitted, unless the TDM dataset is obtained through unlawful means, or was not published under consent of its owner, or is protected as confidential information, or is protected under data protection / privacy laws.

Copyright law, at least in a classic sense, must retain its 'socialist' flavour that ensures equitable balance of competing interests. On the one hand, protecting commercial rights and incentives of the author of a work, while ensuring adequate and reasonable access by the public to such work, so that the chain of creativity is never broken. What is created by one person today, becomes a building block for another person's creations in the future.

9. *If you have experience of the EU exception with opt out for rights holders, how has this affected you?*
10. *How would any of the exception options positively or negatively affect you? Please quantify this if possible.*

## **Patents**

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

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

*For option 3:*

16. *What term and scope of protection should a new right offer?*
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?*
- b) *Set a different bar for inventive step?*
- c) *Be an automatic or registered right?*

## **General**

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

Policy / legislative positions taken by the government regarding (i) TDM, applicable licensing regime, exceptions, royalty, other terms and conditions etc., and (ii) protectability (and consequently the ability to monetize) AI generated output would be key determinants for businesses to invest in AI. Any impediment in effective, easy and reasonable use of AI in day-to-day work would discourage its adoption in mainstream use.

*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?*

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

## **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

████████████████████

**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?

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

3) A law professional.

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

**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

**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, it will be my privilege to be of further assistance to the Intellectual Property Office.

**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