

The following comments regarding this request for opinion are not representative of AIPPI JAPAN, but are submitted as the opinions of a member of the Association.

Patents questions

1. What role can/does the patent system play in encouraging the development and use of AI technologies?

[Answer]

It is possible to encourage the development and use of AI if the patent system is improved taking AI technologies into account.

2. Can current AI systems devise inventions? Particularly:
(a) to what extent is AI a tool for human inventors to use?

[Answer]

It depends on how AI is defined. At least, AI is used for development purposes in some fields. However, AI has not come to be capable of inventing something all by itself, i.e. from the discovery of a problem to be solved to the invention of something to solve it.

(b) could the AI developer, the user of the AI, or the person who constructs the datasets on which AI is trained, claim inventorship?

[Answer]

If an AI system itself is an invention, the AI developer could claim inventorship. If an invention is made using AI, its inventor will not be the AI developer, but will be the user of the AI, or the person who constructs the datasets on which AI is trained. The inventor of such an invention should be defined as a natural person who is found to intervene in the development and to make a sufficient contribution to the process of achieving the invention.

(c) are there situations when a human inventor cannot be identified?

[Answer]

At present, there seems to be no actual example of an invention entirely made by AI, from its conception to its completion. Therefore, it is premature to discuss such a situation.

3. Should patent law allow AI to be identified as the sole or joint inventor?

[Answer]

At present, it is not easy to imagine an actual example of an invention entirely made by AI, and a natural person needs to be involved in some way in order that an invention may be achieved. In this case, AI should not be allowed to be identified as a joint inventor.

Assuming that an invention entirely made by AI is predictable in the future, we may need to discuss whether to allow AI to be identified as a sole inventor. At present, however, it is premature to discuss such a question.

4. If AI cannot be credited as inventor, will this discourage future inventions being protected by patents? Would this impact on innovation developed using AI? Would there be an impact if inventions were kept confidential rather than made public through the patent system?

[Answer]

As long as there is no actual example of an invention entirely made by AI, it is premature to discuss these questions.

5. Is there a moral case for recognising AI as an inventor in a patent?

[Answer]

As I said in my answer to Question 4, it is premature to discuss such a question.

6. If AI was named as sole or joint inventor of a patented invention, who or what should be entitled to own the patent?

[Answer]

As I said in my answer to Question 3, AI should not be allowed to be identified as a joint inventor and it is premature to discuss the question of whether to allow AI to be

identified as a sole inventor. Therefore, this question is not based on a reasonable assumption.

7. Does current law or practice cause problems for the grant of patents for AI inventions in the UK?

[Answer]

I cannot answer this question because you are not specific about what the "current law or practice" refers to.

8. Could there be patentability issues in the future as AI technology develops?

[Answer]

It is possible. However, as long as human involvement is needed for production of an invention by AI, the current technical level of a skilled person should not be changed. It is premature to discuss the skilled person, assuming that AI will be capable of making an invention on its own in the future.

9. How difficult do the list of excluded categories in UK law make it to secure patent protection for AI inventions? Where should be the line be drawn here to best stimulate innovation?

[Answer]

I do not have an answer to this question because I do not have knowledge of these categories.

10. Do restrictions on the availability of patent rights cause problems for ethical oversight of AI inventions?

[Answer]

This question is too abstract to answer.

11. Does the requirement for a patent to provide sufficient detail to allow a skilled person to perform an invention pose problems for AI inventions?

[Answer]

An unpredictable working example may be disclosed when the invention is made easily by AI and/or the inventor (a natural person) does not have enough knowledge to be a person skilled in the art.

Learning data should be disclosed to some extent but the disclosure requirement does not need to be so strict. A patent application should not be refused unless it is obvious that there is no correlation between input data and output data (or correct answer data) for AI. It seems enough if learning data (input and correct answer data) is disclosed to such an extent as to show the correlation.

12. In the future could there be reasons for the law to provide sufficient detail of an AI invention for societal reasons that go beyond the current purposes of patent law?

[Answer]

It depends on what reason you are referring to. Basically, the scope of details should be limited to those to be given in the specification based on the disclosure requirement, as I said in my answer to Question 11 above.

13. Does or will AI challenge the level of inventive step required to obtain a patent? If yes, can this challenge be accommodated by current patent law?

[Answer]

It depends on the technical field. There are three types of AI inventions: (1) an invention characterized by its mathematical or statistical information processing technology, (2) an invention characterized by the application of AI to various information processing or control technologies, and (3) an invention achieved using AI as a tool (an invention of a work product obtained through the use of AI). For the types of invention (1) and (2), non-obviousness of an AI invention is not necessarily assessed relative to the state of the art in a particular technical field. If the same AI invention is used to solve technical problems in other technical fields, these technical fields should be taken into account. However, if an AI invention provides a solution to a technical problem in a particular

technical field, its non-obviousness should be assessed relative to the state of the art in that field. For the type of invention (3), non-obviousness is not necessarily assessed in a particular field. For an invention entirely made by AI, from the discovery of a problem and the conception of an invention to its completion, it is premature to discuss the standards for assessment of non-obviousness (technical level of a person skilled in the art).

14. Should we extend the concept of “the person skilled in the art” to “the machine trained in the art”?

[Answer]

It is premature to discuss the question of whether AI should replace a person skilled in the art.

15. Who is liable when AI infringes a patent, particularly when this action could not have been predicted by a human?

[Answer]

It is premature to discuss this question.

16. Could there be problems proving patent infringement by AI? If yes, can you estimate the size and the impacts of the problem?

[Answer]

It is likely to be extremely difficult for both a plaintiff and a defendant to prove infringement.

Designs questions

1. Do you agree with the analysis above which concludes that it is not possible for AI to be the author or owner of a UK or Community design?

[Answer]

Yes. Since the current law is based on the premise that the creator is a "person," AI, which does not have legal personality, should not be the author or owner of a UK or Community design.

2. Are there, or could there be, any tensions with the current legislation when seeking to register a design or be recognised as the owner of an AI-created design? Who would be the legal entity applying for the rights?

[Answer]

I do not have an answer to this question because AI should not be recognized as the owner of an AI-created design, as I said in my answer to Question 1 above.

3. Who should be recognised as the author of a design created by AI where the system has been bought from a supplier, and the buyer has provided input or data to the system? Does the wording of legislation need to be changed?

[Answer]

In this case, the author should be the buyer who is directly involved in the creation of a design by providing input or data to the system. (To the question about the wording of legislation, I cannot give an answer because you do not refer to specific provisions.)

4. Do you consider that legislation should be changed to allow AI systems to be recognised as the author of a registered design or designer of an unregistered design?

[Answer]

As I said in my answer to Question 1 above, AI should not be recognized as the author of a design.

5. If so, how should we assess when AI stops being a tool programmed by a human and becomes an intelligent entity capable of producing its own IP? What proof or evidence would be required?

[Answer]

At present, human involvement is needed for the production of IP by artificial intelligence. I think it is premature to discuss the authorship etc., assuming that AI is capable of producing IP on its own.

6. Unlike UK domestic legislation, the CDR has no provisions relating specifically to computer-generated designs. Does this result in legal uncertainty in relation to authorship and ownership of computer-generated designs? Would the same apply to AI-generated designs?

[Answer]

The CDR is based on the premise that the creator is a "person." If a natural person who is directly involved in the creation of a computer-generated or AI-generated design is recognized as its author/owner, there will be no legal uncertainty.

7. Are there any other issues in relation to the CDR which we should consider in relation to AI?

[Answer]

No.

8. Can the actions of AI infringe a registered or unregistered design? Can AI do the acts set out in law?

[Answer]

I do not think AI can infringe a design or do the acts set out in law because AI is not a person under the current law.

9. When considering infringement are there, or could there be, any difficulties applying existing legal concepts in the registered designs framework to AI technology?
Does AI affect the use of the “informed user” in measuring overall impression?

[Answer]

I cannot answer these questions. In the first question, you are not specific about what the "existing legal concepts in the registered designs framework" refer to. The second question is unclear too (e.g. about how AI is used).

10. If AI can infringe a registered design, who should be liable for the infringement? Should it be the owner, the programmer, the coder, the trainer, the operator, the provider of training data, or some other party?

[Answer]

I do not have an answer to this question because AI cannot infringe a design as I said in my answer to Question 8 above.

Trade marks questions

1. If AI technology becomes a primary purchaser of products, what impact could this have on trade mark law?

[Answer]

I cannot answer this question, because it is unclear what a "primary purchaser" means.

2. Are there or could there be any difficulties with applying the existing legal concepts in trade mark law to AI technology?

[Answer]

I cannot answer this question, because it is unclear what the "existing legal concepts" exactly refer to.

3. Does AI affect the concept of the "average consumer" in measuring likelihood of confusion?

[Answer]

This question is unclear (e.g. about how AI is used).

4. What is the impact of AI on the drafting of section 10? Can AI "use in the course of business" a sign which may be confusingly similar or identical to a trade mark?

[Answer]

I do not think that AI can use a sign "in the course of business" because section 10 of the TMA is based on the premise that a trade mark is infringed by a "person." Therefore, it is premature to discuss such an impact.

5. Can the actions of AI infringe a trade mark?

[Answer]

No. Section 10 of the TMA is based on the premise that a trade mark is infringed by a "person."

6. If AI can cause trade mark infringement, does this shift who could be liable? Should it be the owner, the operator, the programmer, the trainer, the provider of training data, or some other party?

[Answer]

The owner of AI or the entity who carries out the relevant business activities should be liable.

Copyright questions

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

[Answer]

In the above description, I agree with "one option would be to review, and potentially broaden, the exceptions which allow copies to be made within an AI system – for example for training purposes."

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

[Answer]

I do not have an answer to this question, because an issue like this would not have any direct impact on our corporate business activities.

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

[Answer]

I cannot answer this question, because you do not have a definite idea about how to "support the use of copyright works."

4. Is there a need to provide additional protection for copyright or database owners whose works are used by AI systems? Please provide any evidence to justify this.

[Answer]

I do not think there is a need to do so.

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

[Answer]

No.

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

[Answer]

N/A.

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

[Answer]

No.

8. Does copyright provide adequate protection for software which implements artificial intelligence?

[Answer]

I am not sure. Since the current law does not take into account artificial intelligence, there may be difficult cases to address.

9. Does copyright or copyright licensing create any unreasonable obstacles to the use of AI software?

[Answer]

It depends. However, excessive copyright protection may create obstacle.