

## **Submission from Enterprise Ireland to WIPO Public Consultation on Intellectual Property (IP) and Artificial Intelligence (AI). Reference PR/2019/843**

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### **Introduction**

Enterprise Ireland (EI) is an Irish government agency with responsibility for the development and growth of Irish enterprises in world markets. We work in partnership with Irish enterprises to help them start, grow, innovate and win exports in global markets. In this way, we support sustainable economic growth, regional development and secure employment with a client base of circa 3,500 innovative companies from various industries and sizes.

Enterprise Ireland firmly believes that innovation led enterprises must be able to avail of a fit-for-purpose intellectual property system to realise the commercial and economic potential inherent in their innovation. Artificial Intelligence and its attendant technologies create both opportunities and challenges to the maximisation of this potential. However, the nature of each is unclear at this time. We therefore welcome the opportunity to participate in this consultation process so that we can contribute to the evolution IP policy, in line with the evolution of AI and its impacts, for the benefit of enterprise and the economy at large.

We also commend the World Intellectual Property Organisation for taking a leadership role and using its convening power and position to create the opportunity for a diversity of perspectives from member states to coalesce via an open dialogue and exchange. Furthermore, Enterprise Ireland believes that measures such as the proposed 'IP and AI Strategy Clearing House' and website will prove to be valuable resources to member states aiming to implement policies at national level.

### **Comments**

The following comments are intended to add context to the already comprehensive list of issues outlined in the Issues paper. Enterprise Ireland's focus is on certain areas of the Issues Paper where we envisage practical implications, for innovation and IP led companies, could arise. We seek to outline some of the potential challenges that could arise, as AI inevitably exerts an increasing influence on the IP system, thereby creating a need for policy intervention. Where possible we will relate our comments to the relevant issue or issues outlined in the issues paper.

#### *Issue 1: Inventorship and Ownership and Issue 6 & 11 Authorship and Ownership*

- a) One perspective on the IP system is as an international framework aimed at balancing the rights of individuals (including corporations) to benefit from the fruits of their creativity and society at large to benefit from and enjoy those same fruits (as enshrined in Article 27 of the UN Declaration of Human Rights).

These 'Human' rights overlap strongly, e.g. in terms of moral and material rights, with the rights of inventorship and ownership. Therefore, if the rights of inventorship and ownership are conferred to a non-human entity, could this lead to unforeseen issues in relation to wider 'Human Rights'?

- b) This section of the 'Issues Paper' largely focuses on the implications of AI on IP from the perspective of the AI as inventor. However, the openness of the IP system means that it must

encompass processes to accommodate the views of other interested parties, which could also be an AI. For example, in most jurisdictions the opposition procedure allows for individuals to file formal oppositions to patents applications, often anonymously. Will AI's be allowed to file oppositions and will they and/or their owner be afforded the right of anonymity?

In a similar vein will AI's be entitled to participate in appeals procedure before an IP office, as would normally be the case for a human inventor? If so, how could that be conducted in practice and if not, does this redefine their rights as an inventor, or create a different form of right for an AI inventor that takes account of the absence of rights such as moral and material rights?

#### Issue 3: inventive step and Non-Obviousness

As technology advances it is reasonable to expect that AI technologies will be able, if not already, to review a much wider range of prior-art than a typical person skilled in the art. This capability could change the threshold for meeting the inventive step requirement especially if patent examiners have to deploy equivalent AI as a consequence. Will human inventors be disadvantaged in such a scenario?

Furthermore, taking this argument to an extreme it is possible that at some point nothing could be considered non-obvious, to an AI? This may be a basis for excluding AI inventors but it does not stop human inventors from using AI as a tool and not naming it as an inventor. The same principle applies where and AI is used to develop an opposition argument.

#### Issues 2, 4, 5 and 6: Patentable Subject matter and Patentability Guidelines, General policy Considerations, Copyright and Related Rights.

- a) It appears inevitable that AI will continue to play an increasing part in the process of invention. Rapidly evolving technologies such as artificial neural networks and machine learning will continue to elevate its role to more than a mere 'tool'. As a result, it would seem futile and possibly counterproductive to eliminate inventions created by an AI, autonomously or otherwise, from patent eligibility. IP Policy should therefore focus more on addressing the issues that emerge as a result of AI invention rather than restricting AI participation.
- b) As neural networks and machine learning advance it will be increasingly difficult if not impossible to retrace the development path from end solution back to original problem. This lack of technical transparency may raise a number of practical issues:
  - How will the patent examination process proceed? If the invention is a sufficiently large step change from the state-of-the-art it may present a challenge for a patent examiner to trace the inventive step. Also, if the development path including the technical challenges overcome by an autonomous AI are not discernible to the typical person skilled in the art, could the principle that patents should add to the general body of knowledge be weakened?
  - If an AI owned by company A independently invents a solution that a competitor company B had previously held as a trade secret (TS). How can A defend itself against trade secret misappropriation by B. Equally, if it is not possible show how a solution was arrived at, could the defence "The AI did it" become a common refrain in TS misappropriation cases.
  - Currently, best practice dictates that R&D performing companies should document their development process and in so doing they build a solid technical foundation in support IP protection and against future IP invalidation actions. An additional benefit

is that these companies are also better placed to access other benefits such as R&D tax credits. If the development process followed by an AI cannot be discerned, how will opportunities such as these be impacted?

- c) Data- Another characteristic of AI invention is, or will be, that its effectiveness increases as the volume of data, available to it, increases. Put another way, an AI with access to no data may have a low capacity to invent, but a similar one with access to a large well-structured database may be prolific. Therefore, the question arises, does the database owner or creator have any inventorship rights? How do these rights overlap with copyright and sui generis rights of the database owner? Could Database rights become a barrier to innovation and potentially anticompetitive in a scenario where the largest and richest sources of data are held by a few large data aggregators and inaccessible to the majority? Would a patent examiner require access to the database used by the AI to carry out the examination?

The policy implications of these issues could mean that IP policy changes pertaining to patents would have to be complemented or integrated with parallel policy changes in other areas of IP such as copyright and 'Database rights', in order to be effective.

Also, can policy address the issue of lack of technical transparency when and if it arises? For example, could it be possible to compel an AI to document the development evolution from previous state-of-the-art to the current invention, as a patent eligibility requirement?

In conclusion, the degree of uncertainty around the impact of AI on IP is vast however we believe it is inevitable that AI will disrupt our current understanding of the IP system. We, therefore, do not think (as outlined in Issue 5, 11. (ii)) that it is too early to start to address policy implications. However, we believe that it is prudent to exercise the 'precautionary principle' and to implement policy changes in a measured manner. In this regard a gradual transition from a 'Human' system to combined "Human/AI" system should involve incremental changes and testing within areas with relatively high degrees of certainty and low likelihood of spill-over effects.

Furthermore, Enterprise Ireland would encourage WIPO to seek input from the widest possible range of stakeholders, i.e. experts from fields outside but complementary to both IP and AI such as: standards authorities; human rights organisations; economists, industry, academia etc.

## **Contact**

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