



Intellectual
Property
Office

Artificial Intelligence and Intellectual Property

UK IPO experience

Pierre Oliviere, Head of Futures Strategy, UK IPO

Artificial Intelligence

- AI is a transformative technology
- AI will become more prominent across society.
- AI is a powerful tool for scientists, entrepreneurs and artists
- AI can already act in innovation and creative processes

AI is a Government Priority - National AI Strategy

 Intellectual Property Office

"...we want to create the best environment for artificial intelligence companies and innovators by ensuring our copyright and patent system is a catalyst for them to thrive..."

George Freeman MP
Minister for Science, Research and Innovation



 Intellectual Property Office

"...Making sure our rules around intellectual property and technology are fit for the digital age, is at the heart of our new AI strategy..."

Chris Philp MP
Minister for Tech and the Digital Economy



 Intellectual Property Office

**"...we are looking ahead
to embrace the challenges
that AI will bring, and the
opportunities to unleash
innovation's potential..."**

**Tim Moss CBE
CEO, Intellectual Property Office UK**



AI and IP timeline

- AI identified as a future issue
- AI tools are developed for:
 - trademark searching (2019)
 - patent searching (2018)
 - patent allocation (2018)
- DABUS application published (August 2019)
- AI Allocation Assistant rolled out (November 2019)
- UKIPO launches a Call for Views on AI and IP (September 2020)
- TM pre-apply advice AI tool launched (November 2020)
- Government response to the Call for Views published (March 2021)
- National AI strategy published (September 2021)
- UKIPO consultation on AI and IP: copyright and patents published (October 2021)

AI tools in the IPO

- [TM pre-apply advice](#) – an AI powered tool:
 - searching and selecting goods and services
 - an automated relative grounds search using Optical Character Recognition
 - information and checks on other acceptance criteria
 - 250 visits/day, quicker TM examination, better quality applications.
- Machine learning patent application allocation tool:
 - automates a large part of the process of assigning patent applications to the relevant patent examiner
 - allocation accuracy increased from 60% to 80%
 - at least a 50% time saving for allocators
- Pilot of AI assistance for patent prior art searches:
 - AI algorithms can offer some benefits
 - need for examiner involvement in both the input to the algorithms and in the interpretation of the results
 - no plans to take this research further at this stage
 - working with the EPO on their next generation AI search tool

Previous Call for Views on AI & IP

In 2020, UKIPO asked whether the IP framework works in relation to AI.

- Should AI-generated inventions be protected by patents?
- Should AI-generated creations continue to be protected by copyright?
- Do patents and copyright adequately protect AI software?
- Is copyright a barrier to machine learning?
- Whether AI would impact on trade marks, designs and trade secrets.

Response to Call for Views on AI & IP

- A positive future was envisaged where intelligent machines support human researchers, creators, and inventors in developing new technologies.
- There was a general approval that intellectual property could encourage and support this development.
- Warnings were also given that AI could take the humanity out of the creative process and harm the human creators that intellectual property is designed to protect and reward.
- In many areas there was general agreement that the present legal framework could meet the challenges of the future.
 - For example, most people felt that existing liability rules could be relied on for infringement by AI.

Consultation (29 Oct 2021 to 7 Jan 2022)

- Copyright protection for computer-generated works ('CGW') without a human author. These are currently protected in the UK for 50 years. But should they be protected at all and if so, how should they be protected?
- Licensing or exceptions to copyright for text and data mining ('TDM'), which is often significant in AI use and development.
- Patent protection for AI-devised inventions. Should we protect them, and if so, how should they be protected?

UK Copyright and AI – CGW

- The Copyright, Designs and Patents Act 1988 gives 50-year copyright protection to “computer generated works” which are literary, dramatic, musical or artistic works generated by computer such that there is no human author of the work.
- Lawmakers at the time believed it was “the first copyright legislation anywhere in the world which attempts to deal specifically with the advent of artificial intelligence” - meant to protect material such as weather maps, output from expert systems, and works generated by AI.
- We do not know the extent the provision is used now, or what types of work are currently generated by computers without human creativity.
- Issues around the legal test for originality
- Questions about economic incentives
- Philosophical arguments about human authorship and creativity

UK Copyright and AI – TDM

- Introduced the TDM exception for non-commercial research in 2014
- Supported by researchers but issues around the distinction between commercial and non-commercial research and the application to databases
- The consultation looks at options on both TDM licensing and exceptions, which will have a spectrum of options which relate to TDM
- Various models in place internationally



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