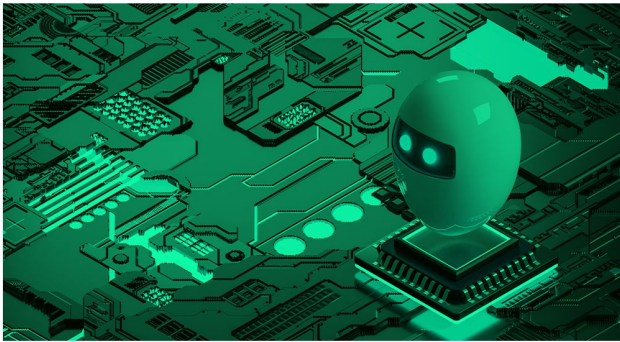


# Who Owns Generative AI?

*Artificial Intelligence, Intellectual  
Property and International Law*



## Summary

The fact that machines are demonstrating human-like acumen and engaging in activities that were once restricted to humans is increasingly becoming prevalent creating questions across various contexts including the legal sphere. In the context of intellectual property (IP), there are a plethora of questions including data training of AI technologies, ownership of inputs and outputs and the extent to which law and policy is adequate to respond to the various shades of concerns posed by AI. One of the areas where these questions are significantly emerging surrounds the ownership of generative AI (GEN-AI). GEN-AI is a sub-set of deep learning AI that creates content in the form of text, audio, images or videos. Some of these Gen AI models include ChatGPT, Dall-E and Midjourney. These models are widely applicable across various contexts including arts and entertainment, finance, education, and healthcare. This brief presents an overview on the question of ownership of GEN AI in the context of IP.

## Aderomola Adeola<sup>1</sup>

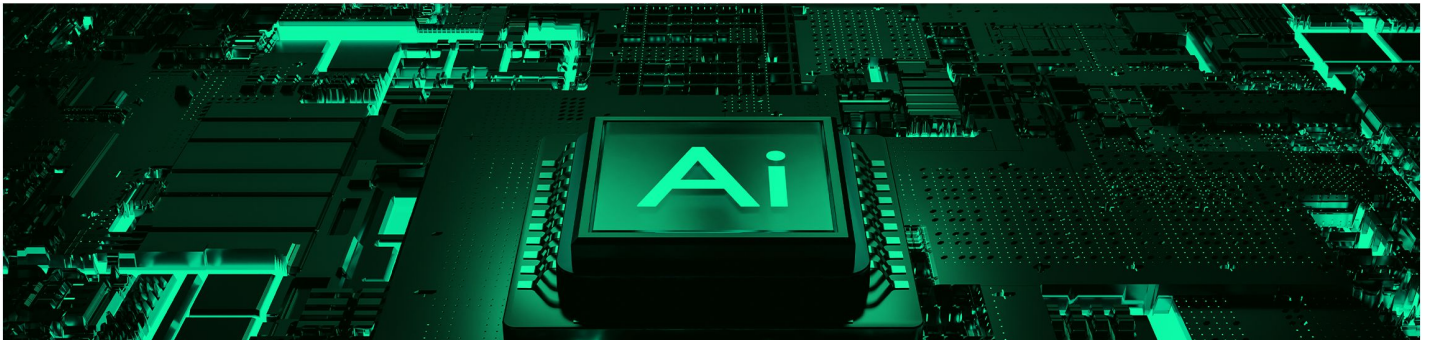
### 1. GEN-AI and the question of ownership

Broadly, there are four important questions of ownership with respect to AI in the discussion on IP.

- Who owns AI technologies?
- Who owns AI-assisted creations?
- Who owns AI-based creations?
- Who owns AI-generated creations?

Beyond semantics, the four inquires possess different notions. When we speak of AI models, we talk of the AI technologies. For instance, ChatGPT. The consensus on this is that these forms of technologies are protected by IP. And obviously the question of human ownership is not in dispute. However, there are obvious questions that also come from this issue with regards to ownership, especially thinking about who ownership should be assigned to, for instance, as between those that provide the data for training and those that create the AI technologies.

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However, there is a second level of inquiry, which is: who owns inventions or creative works where AI is used in the process of creation but not part of the output. The US court decision in *Pannu v lolab Corporation, Inc* offers guidance on this question through a three-factors test<sup>2</sup>. And the evident conclusion from this is that if there is 'significant' human contribution either to the conception or reduction of the invention, then such creations can be protected by IP. However, AI will not own the IP.

The third level is where AI is part of the creative process and visibly part of output. These are AI-based inventions. So, for instance, think about self-driving cars that learn and mimic the skill of their riders. It is imperative to underscore the fact that the works can be patented. But still AI will not own the IP. Rather the human creators will.

The fourth aspect is really what we are concerned about and that is the question of AI-generative inventions: GEN-AI. In 2022, when an AI won an art context, the evident reality of this situation was significantly brought to the fore.<sup>3</sup>

Using Midjourney through a series of prompts, Jason Allen created a beautiful picture titled: "Théâtre d'Opéra Spatial". However, the US copyright office refused to assign IP on the basis that this was generated by AI.<sup>4</sup>

This reasoning has also been validated by courts in the US and the UK through infamous cases brought by Dr Stephen Thaler regarding his creative works done with AI (Device for the Autonomous Bootstrapping of Unified Sentience – DABUS) which he had sought to register. In 2023, a US District Court in Washington DC decided that the work: *A Recent Entrance into Paradise* cannot be registered as a copyright in view of the pertinence of human authorship which was described as the 'bedrock requirement of a copyright.'<sup>5</sup> Earlier in 2022, the US Copyright Office had revoked an initially granted license to Kristina Kashtanova for aspects of a book content which were generated by AI in view of the pertinence of human authorship as sacrosanct to the process of IP.<sup>6</sup>

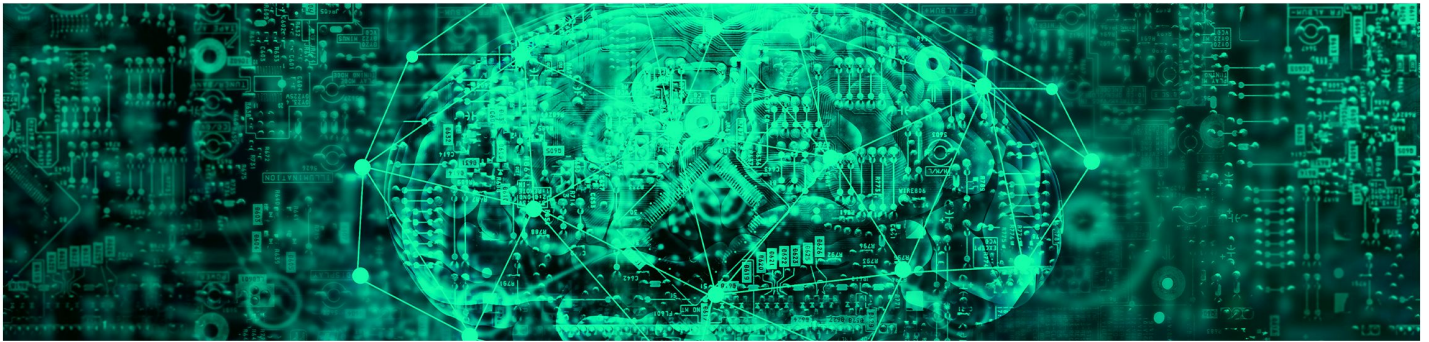
<sup>2</sup> *Pannu v lolab Corporation, Inc.*, 155 F.3d 1344.

<sup>3</sup> Kevin Roose 'An A.I.-Generated Picture won an art prize. Artists aren't happy' *The New York Times* 2 September 2022.

<sup>4</sup> Anrew Kenney 'Jason Allen's AI art won the Colorado fair – but now the feds say it can't get a copyright' *CPR News* 6 September 2023.

<sup>5</sup> *Thaler v Perlmutter*, Civil Action 22-1564 (BAH).

<sup>6</sup> US Copyright Office: *Re – Zarya of the Dawn* (Registration #VAu001480196) (21 February 2023).



In 2024, the UK Supreme Court equally aligned itself with the reasoning on the fact that the narrative of invention necessarily implicates an inventor. It upheld a lower court ruling by Marcus Smith J that an inventor ‘is a person’ and an ‘invention is a thing’.<sup>7</sup> However, not all countries are singing the same melody. For instance, in 2021, South Africa assigned a patent was assigned to an AI. Although this has raised some questions around on whether the end goal is to spur innovation or perhaps it is an oversight that will be addressed in due cause.<sup>8</sup>

Under the Nigerian law, much of the normative reasoning leans towards the fact that AI-generated works cannot be patented especially given the pertinence of human authorship to the process.

## 2. Policy Considerations

The entire notion of AI presupposes the narrative of intelligent agents making decisions at par with humans and in fact, beyond what human capabilities can evidently proffer as a futuristic goal.

The fascination of this notion has created two kinds of reactions: optimism and pessimism. But there are those along the line of the continuum who raise the need for moderate caution in how the narrative on AI is considered and utilized. But whatever perspective tempers reason, the fundamental issue is that the evident dawn of AI raises an imperative – the need to find solutions that can reasonably attend to the many questions, ruses, and uncertainties it creates.

As patents and works continue to advance with the character of time, there are questions on how AI will significantly sharpen and upend the nature of IP law. Key questions to consider will be:

- How to protect the ‘prompts’ used to engineer results from GEN AI and if this should even a matter for policy considerations.
- How to define clearly the extent of significant human authorship or contribution, given as this may be subject to case-by-case analysis and a broad notion of interpretation.

<sup>7</sup> Ben Cohen ‘Can AI be an inventor? Maybe not today, maybe not tomorrow, but soon?’ Freshfields, Bruckhaus and Deringer 25 September 2020.

<sup>8</sup> Meshandren Naidoo ‘In a world first, South Africa grants patent to an artificial intelligence system’ The Conversation 5 August 2021.



Broadly in the IP field, it is imperative to determine the character of IP protection on the content used to train AI, particularly given as the Fair Use Doctrine allows for an expansive interpretation. In the end, the question on who owns GEN AI is one that needs to be concretely defined in law and policy formations, with interpretative guidance from the courts as custodians of legal norms.

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