

WIPO Conversation on IP and Frontier Technologies



WIPO Conversation on Intellectual Property and Frontier Technologies: AI Inventions

Sixth Session

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THE MANY MEANINGS OF “ARTIFICIAL INTELLIGENCE”

Artificial Intelligence

(umbrella term for the branch of computer science involving computer intelligence, e.g., expert systems)

Machine Learning

(data may be used to train a model that can then be used to make predictions or classifications on similar data)

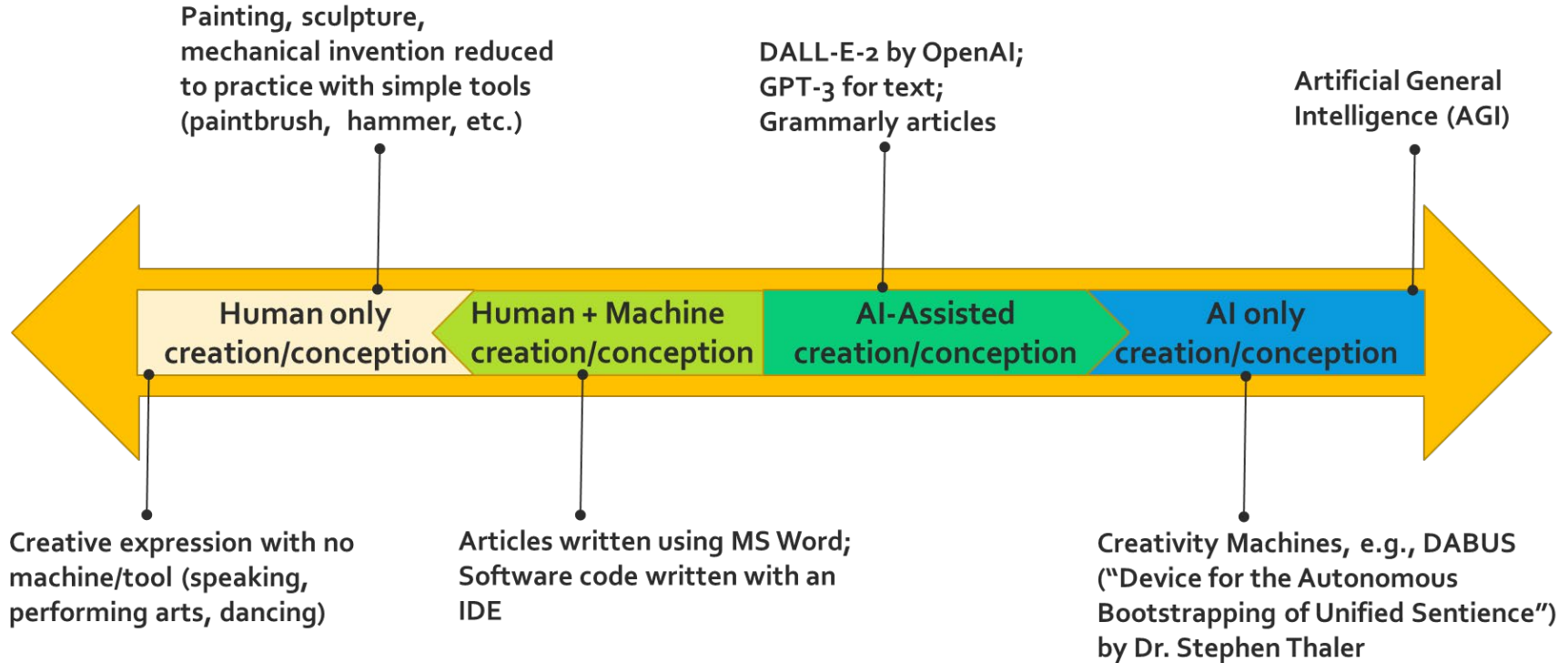
Neural Networks

(multiple linked nodes (i.e., neurons) receive inputs and produce outputs based on an activation function)

Deep Learning

(Neural Network w/ Many Hidden Layers of linked nodes)

AI AUTHORSHIP/INVENTORSHIP SPECTRUM



THE DABUS INVENTIONS

“Device for Autonomous Bootstrapping of Unified Sentience”

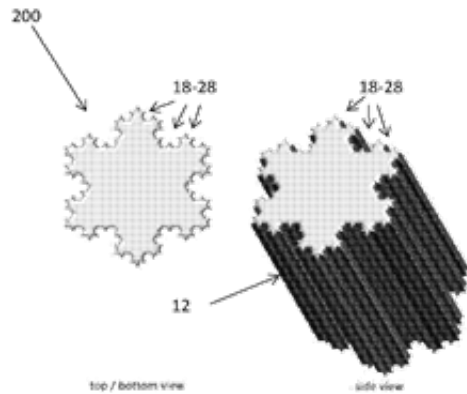


Fig. 6

First Invention: Beverage container (e.g., “fractal container 200” of Figure 6).

Has a series of fractal elements 18-28 that “extend in linear manner along the length of the container 200”

Solution 1: “... the corresponding convex and concave fractal elements ... provide for increased surface area of both the interior and exterior surfaces of the container relative to a volume of the chamber. An increased surface area can assist in the transfer of heat into and out of the container, for example for heating or cooling the contents thereof.”

Solution 2: Containers fit together w/o use of plastic ties

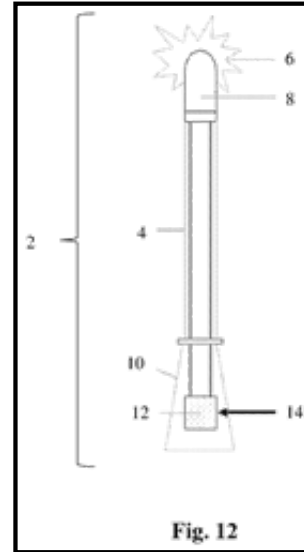


Fig. 12

Second Invention:

“Neural-flame device for attracting enhanced attention” of Figure 12. Has a “controllable light source 6 (e.g., an LED component”) activated in a manner “to trigger the brain's innate ability to filter sensory information”

Solution: “A light source driven in such a manner may serve as an emergency beacon within environments filled with distracting light sources that are flickering randomly or periodically.”

AI Inventorship – Worldwide Perspective

NO sole AI-Inventorship in most jurisdictions: Various patent offices/boards/courts have found that inventorship requires a natural person. (United States, United Kingdom, EPO, Japan, China, Australia, and New Zealand)

Australian Patent Office: Australian patent law, as currently written, requires a human inventor. Previously, an Australian lower court judge had found that an AI could be listed as a sole inventor on a patent application. However, this was later overturned by the Federal Court of Australia's Full Court.

South African Patent Office (CIPC): The application may identify an AI inventor, at least where the South African application was filed based on an international application (e.g., a Patent Cooperation Treaty (PCT) application) designating an AI inventor, as previously accepted by the World Intellectual Property Organization (WIPO)

DALL-E-2 Example

DALL-E-2 x surrealist painting of a cityscape x +

labs.openai.com/e/Jx4dr76pgNPIVNAmOxmvMRci


DALL-E My collection

Edit the detailed description

Surprise me Upload →

surrealist painting of a cityscape at the bottom of the ocean

Generate



The image displays four distinct surrealistic paintings generated by DALL-E-2. Each painting depicts a cityscape at the bottom of the ocean, but with unique and imaginative interpretations. The first painting shows a dense, multi-story city with buildings of various heights and colors, set against a deep blue background with many small fish. The second painting features a cityscape with buildings that appear to be floating or built on a dark, curved surface, with a large white whale-like creature swimming in the water below. The third painting shows a cityscape with buildings that have a yellowish, aged appearance, with a large, colorful fish swimming in the water above. The fourth painting depicts a cityscape with buildings that have a more classical, architectural style, with a large white cloud-like shape above the buildings and a large, white, tentacle-like creature swimming in the water below.

Additional References

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Can an Artificial Intelligence (AI) be an Inventor?

European Patent Office (EPO) Suggests that the Owner of an Artificial Intelligence (AI) Machine Could be Listed as the Inventor of an AI-Generated Invention

Updates on AI Inventorship: New Zealand, the EPO, and the UK allow an Artificial Intelligence (AI) machine to be listed as a Joint Inventor along with at least one Human Inventor