# AI as artist: Applause, yes – but sorry, no copyright

From cave paintings to AI art, the tools used in the creative process continue to evolve

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For The Straits Times

The art world has been thrown into a tizzy by the apparent invasion of artificial intelligence (AI) into its hallowed realms. News that the top prize for emerging digital artists at the Colorado State Fair went to a work created by an AI program, Midjourney, set off a backlash from artists who saw this as cheating. .

Today, rapid advancements in AI capabilities to create art continue to redefine the human role in the creative process. Most of these works of art rely heavily on the underlying algorithm and creative input of the programmers; the computers are akin to paintbrushes or chisels – they are tools used in the creation of the artworks.

New tools like Midjourney mean even amateurs can create "art" by inputting words into a text box. This raises many questions, including who is determined as the painter or author – does the "tool" or program get a credit; what is originality; and by extension, where do the legalities of copyright stand in all this?

In Singapore, the relevance here is that the new Copyright Act that came into effect in November last year is silent on whether AI-generated works are protected. However, a number of sections in the legislation make it clear that only a human individual can be an "author". For instance, the duration of copyright is pegged to 70 years after the death of a person (section 114), and copyright in an authorial work exists only if the author is a qualified individual where "he or she" is a Singapore citizen or a Singapore resident (section 77). The Singapore Court of Appeal has also ruled that for copyright to exist in any literary work, the authorial creation must causally connect with the engagement of the human intellect, which a non-human author is deemed to be unable to provide.

## HOW AI ART EVOLVED

In April 2016, advertising executive Bas Korsten unveiled The Next Rembrandt, a computer-generated 3D painting created by an algorithm with facial recognition software that spent 18 months examining 346 known paintings by the Dutch painter, using 150 gigabytes of digitally rendered graphics.

In 2018, Obvious, a Paris-based collective, developed the painting Portrait Of Edmond de Belamy through Generative Adversarial Networks, which used a sample set – in this case, thousands of portraits – to recognise patterns before creating new pieces with that knowledge.

In October that year, auction house Christie's in New York marketed the painting as the first portrait generated by an algorithm to come up for auction, and sold it for US$432,500 (S$608,000), over 40 times its initial estimate. Although the price paled in comparison with traditional masterpieces like Claude Monet's Meules or Pablo Picasso's Le Rêve, this painting was noteworthy for its claimed artist: It was not a person but an algorithm.

## WHO IS THE CREATOR?

Many commentaries do not make a clear distinction between the AI as a "tool" used by a human individual or the AI itself independently and autonomously producing a work without supervision or significant human intervention.

The former category is usually called AI-aided works, while there is no consistent term used to define the latter category. But let's call them AI-generated works here.

Examples of the former include the work of internationally renowned artist Sougwen Chung who uses hand-drawn and computer-generated marks in her drawings, sculptures and installation works, and Scott Eaton, who creates and trains AI to translate his drawings and animation into photographic, figurative and sculptural forms.

Civil law countries such as France and Germany regard authors' works as emanations or extensions of their personalities, based on the 19th-century European doctrine of droit moral, or moral rights, referring to the personal rights a creator has in their work.

Similarly, the Berne Convention for the Protection of Literary and Artistic Works, most of which has been incorporated into the WIPO Copyright Treaty and the Agreement on Trade-Related Aspects of Intellectual Property Rights, was drafted with a focus on the rights of human authors in literary, dramatic, musical and artistic works.

The economic utilitarian justification for copyright does not explicitly mandate human authorship. However, it does suggest that the delicate balance of various goals would be upset if copyright were conferred on AI-generated works.

## COPYRIGHT AND CREATIVITY

Artists may think that copyright law is designed primarily to protect the creator of works per se, but that is not the sole purpose of copyright law outside of the civil law countries. It is widely accepted by policymakers and judges that the primary purpose of copyright is to promote the public good by protecting authors and other rights holders from use of their works that unfairly hijacks the commercial value, and to incentivise the production of more works for the public benefit.

There are two compelling arguments against granting copyright to AI-generated works. First, from an economic viewpoint, AI, be it a machine or an algorithm, is not incentivised to produce new works by copyright, which is an economic monopoly right. Second, from the creativity perspective, the fundamentals of copyright demand an intellectual creation reflecting the freedom of choice and personality of its author whether in the writing of a book, composition of music or choreography of a dance performance.

For AI-aided works, there is significant human intellectual input that contributes to their production process. Granting copyright protection to only AI-aided works incentivises to the extent necessary to encourage creativity, without disproportionately preventing reasonable access to works by the public. On the other hand, providing copyright protection for autonomous AI-generated works would grant a monopoly to individuals and corporates who did not provide the requisite creativity that is connected to the creation of the final products.

One must be careful not to equate "value" with "creativity" in copyright law. The core concept of authorship in copyright law is often known as originality, and it embodies the creativity in conceiving the work and controlling its execution. The mere fact that a work generates an aesthetic effect is insufficient on its own to establish its originality.

It has been explained by researchers that the creative process starts in our subconscious mind, which generates images, feelings and emotions, and then transmits them to our consciousness.

Next, we consciously perceive these images and make decisions about how they can be expressed in any form – for example, in writing or in song. The conscious comprehension of the impulses and enlightenments in the subconscious mind performs the function of selecting the form of expression for the results of creativity and controlling the process of modelling it.

Thus, it is the presence of the author's own choice or volitional path in the creation of a work – as a result of the conscious mind (entailing rules of logic) and subconscious mind (involving fantasy, imagination, intuition and premonition) working together – that makes a work "original".

AI-aided works are clearly original as courts treat the AI systems as tools or agents that aid the human author to render ideas into expression. In an English court decision which concerned AI-aided work, the court likened a computer to a pen in that both were tools, and that it would be "unrealistic... to suggest that, if you write with a pen, it is the pen that is the author of the work rather than the person who drives the pen".

## REDRAWING THE MEANING OF 'TOOL'

Copyright is not about a matter of beauty or taste – it is about encouraging and rewarding human creativity.

Throughout history, humans have always relied on tools to produce paintings and other artistic works. The oldest paintings were created with pigments. In the 1500s, paintings like Leonardo da Vinci's Mona Lisa were created with paintbrushes. In the 1960s, Andy Warhol used mesh screens to transfer ink onto the canvas. In the 1990s, Damien Hirst created his spin paintings by pouring different coloured paint onto machine-operated rapidly rotating canvases. More recently, David Hockney's series of 116 works, The Arrival Of Spring, was "painted" on the iPad and then printed onto paper, with Hockney overseeing all aspects of production.

In 2019, Scott Eaton in his debut exhibition in London, declared that his interest in this emerging field of AI is "not in creating agents that 'create art' autonomously, but rather in making art 'assistants', AI collaborators that take direction and enhance the creative possibilities available to the human artist".

AI or the computers are the tools of the 21st-century artist like Jason Allen who successfully used Midjourney to create his prize-winning Theatre D'opera Spatial.

## SOLE OR JOINT AUTHORSHIP?

All is not lost when AI independently and autonomously generates works; the human artist – albeit not the "author" – credited with this innovation will enjoy important recognition, and can exploit other forms of commercial opportunities associated with such AI-generated works.

Ultimately, in determining who is the author of AI-aided art, copyright law should look closely at the roles of the programmer of the algorithm, the data supplier who selects and inputs the relevant data, and the users of the AI system who may add further creative contribution to the final output.

Singapore's Copyright Act recognises a work of joint authorship (section 10); in circumstances where the AI is used as an assistive tool, at the time of each individual's creative input, they must be aware of and influenced by each other's specific contributions.

Thus the law should systematically evaluate the relative weight of creative input of each human individual in the process to determine whether sole or joint authorship ought to be recognised.

The advent of unexpected and unusual AI-generated works is very much welcomed, but there is unfortunately no room for the AI-author. Perhaps the next UOB Painting of the Year will be awarded to an AI artist – but sorry, no copyright.

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Argentinian artist Sofia Crespo, seen here with one of her works, is part of the "generative art" movement, where humans create rules for computers which then use algorithms to generate new forms, ideas and patterns. PHOTO: AFP