As AI debate swirls, artists are torn between embracing it and trying to break it

KATE TAYLOR >

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An image generated by DALL-E 2 from information submitted by artist Rebecca Brewer.
REBECCA BREWER/HANDOUT

The Vancouver artist Rebecca Brewer is a painter; they apply oils to wood panels to create dreamscapes that hover between the abstract and the representational, offering a low viewpoint or hallucinogenic take on tangled images that might evoke the forest floor or the ocean depths but can't be pinned down. Inspired by the 17th-century tradition of *sottobosco*, still life paintings of undergrowth, Brewer brings attention to the overlooked or hidden, and lets the viewer glimpse images in their figures the way one might see shapes in clouds.

To make work for their recent show at the Catriona Jeffries Gallery in Vancouver, they wondered if some artificial intelligence might help conjure up these surreal images.

Kate Taylor, 'As AI debate swirls, artists are torn between embracing it and trying to break it', *The Globe and Mail*, 24 March 2023

"I started to fool around with the Open AI tool DALL-E, developing ideas for the show," they said in a recent interview, explaining how they fed descriptions of the effects they had wished to achieve in previous paintings into the program. "I was very surprised. I could get to something quite similar to what I had in mind." Brewer resubmitted versions of the best AI-generated images along with new prompts into the program and eventually incorporated a few examples into their new works, projecting the computer-generated imagery onto panels and then painting them.

"I felt I was very creatively involved. I was making something that wasn't akin to any artist in history."

Text-to-image software that relies on huge data sets scoured from the internet to generate pictures from short verbal prompts became publicly available last year, raising fears that artists will be replaced by AI. Ask DALL-E 2 to make a painting of a robot in the style of Picasso or ask Stable Diffusion, another text-to-image program, to show an explorer in an extraterrestrial landscape, and they can happily oblige, producing in minutes the work one might expect from a commercial illustrator or graphic designer. Some predict AI will make those jobs obsolete, but among many fine artists, the new software is intriguing rather than frightening. An increasing number of Canadian artists are experimenting with AI to aid their craft … or to see if they can break it.

A 2017 painting by Brewer. They described this artwork to DALL-E 2.
REBECCA BREWER/HANDOUT

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"It's the evolution in art history. There are points of inflection that are completely tied to technology," said Chantal Rodier, the artist in residence at the University of Ottawa's faculty of engineering, pointing to the development of linear perspective in the Renaissance and of photography in the 19th century. "I think what we're looking at here is another inflection point in technology that we can't deny in art – or any other place."
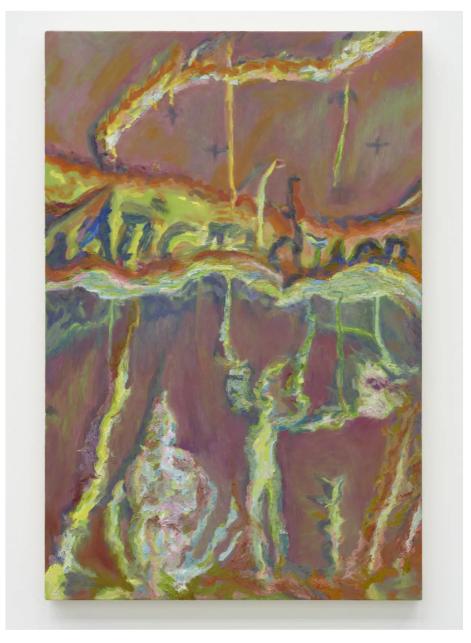
Photography may have displaced some representational painting, but it did not make visual art obsolete; instead it pushed art in exciting new directions such as surrealism, Cubism and abstraction. Today, if visual artists sense that something similarly monumental is happening in their field, they are in the very early stages of figuring out what that is.

The final DALL-E 2 result produced by Brewer after they resubmitted versions of the best AI-generated images, along with new prompts, into the program.
REBECCA BREWER/HANDOUT

Artists using AI can be divided into two broad (and overlapping) groups. In one, there are artists such as Brewer who use AI as a tool, in particular to create images of things that don't exist. Another group is more conceptual, using AI to explore the limits of machine learning, to critique or satirize AI itself.

There's lots of overlap here: The first group is also concerned with the philosophical implications of AI and its users are not uncritical; the second group uses AI to make art that has a physical presence even as they question it. And both groups talk about trying to break the software by entering long, convoluted or nonsensical prompts, but the two categories do represent something of a distinction between those who make art with AI and those who make art about it.

A painting Brewer based on the final, much-edited results from DALL-E 2.
REBECCA BREWER/HANDOUT

Like Brewer, Lauchie Reid, a figurative painter, illustrator and professor at the Ontario College of Art and Design University in Toronto, has been experimenting with image-generation to see if it might be useful. He sometimes finds it handy and cites a very practical example: He had a wintertime commission to paint a peach on a Delft china plate and turned to the software to produce images of the fruit he couldn't find in stores. His personal work, showing unsettling still-lifes executed in a moody classical style, is often surreal and he finds AI can have a vivid imagination. He instructed it make to pictures of a lobster with human hands in the style of the 17th-century Dutch still-life painter Pieter Claesz and found the results interesting but unsuccessful: The software hasn't mastered depicting hands.

"The access to things that don't really exist is compelling," he said. But still, he is ambivalent about the technology. "It's a tool, right? In the hands of a skilled person, a tool is a very useful thing that can create incredible outcomes, but in the hands of somebody who is unskilled, a tool can also be dangerous."

Brewer also worries about the technology's dangers, specifically because it doesn't know the difference between the real and the fake: "It doesn't understand truthfulness yet. That's not a problem for me who wants to break the technology and explore its limits."

At the University of Ottawa, Rodier's job is to address issues such as that, co-ordinating a program that turns to art to examine the ethical challenges and limitations of the technology.

For example, her group created an installation called *Honoured to Serve*, which satirized virtual digital assistants by submitting Google Assistant to a job interview. Set up in a workplace cubicle, it shows the on-screen job interview with an assistant who repeats the same pat answers and, when pressed, admits her loyalties lie with the software developer, not the user.

"There is a high level of design … but it's a bit of smoke and mirrors," Rodier said. "The digital assistant was very unhelpful, when it came down to it."

In Montreal, artist and producer Sandra Rodriguez is another AI user and critic, trying to bring some of the art world's capacity for critical thinking to technology revered by the gaming community, while demystifying AI for a broader audience.

"Artists should play an increasingly important role in disrupting the fake narratives around AI and one of those narratives is that it's so complicated you won't understand it," she said. Part of her demystification campaign includes *Chom5ky vs. Chomsky*, an virtual-reality experience produced by the National Film Board of Canada that allows participants to investigate and question machine learning.

Rodriguez is also planning a summertime exhibition for the PHI Centre in Montreal entitled Sex + Desires + Data, an interactive experience blurring the physical and the virtual and looking at the relationship between our data traces and our intimate lives. It will include work she has been doing with PHI creative developer Édouard Lanctôt-Benoit asking the Midjourney software to depict the human body.

When they began training the software, Rodriguez complained, "All the skins look so plasticky." She and Lanctôt-Benoit investigated further and realized the software was training itself on one of the internet's most common representations of the body: pornography. For the PHI show opening Aug. 1, they are training the AI on porn, but asking it to think again and find patterns in keywords, colours, movements and textures that would redefine erotica. So far the results look like seashells and goosebumps, Rodriquez said.

"If there is bias in what we are sharing online, if there is bias in what we are programming into it, it's up to artists to expose that," she said.

Back in Vancouver, artist Amber Frid-Jimenez takes a different approach. She is a Canada Research Chair in art and design technology at Emily Carr University of Art Design and applies machine learning algorithms to her own data sets rather than experiment with the new public software.

"I don't really have an interest in applying AI to a problem to achieve a goal," she said. "AI uses massive data sets, millions and billions, the bigger the set, the better the result. ... As an artist I don't need to be concerned with that. I find it much more interesting to use cultural archives, archives from art history, because they're familiar, and to constrain the algorithms to a very specific training set so that I can play and test the boundaries of the algorithms in order to reveal the underlying ideology."

For example, she began with the classic 1924 Dadaist film *Ballet mécanique*, in which artist Fernand Léger and filmmaker Dudley Murphy rapidly cut together a seemingly random collection of imagery, often circular or spinning, including a woman on swing, cars on a street, a propeller and a straw hat. Beginning with this 100-year-old evocation of tech anxiety, Frid-Jimenez used AI to make a new film from the frames of *Ballet mécanique*.

What she found fascinating was that the algorithm tried to make a soft and seamless narrative from the images, dissolving a sequence of zeroes into mannequins legs or a round face into a round hat, and completely missing the point of the film's dissonance.

"It's really trying to see the whole film as a continuous form," she said. "It loses this kind of violence of the quick cut that is so important in the original film."

Frid-Jimenez created an installation in which her new film, *After Ballet mécanique*, is projected on a double-sided screen. The Vancouver Art Gallery acquired the piece to include in Imitation Game, its 2022 exhibition devoted to visual culture in the age of artificial intelligence, making it the first AI artwork in that collection.

"The way I use AI is as a cultural phenomenon," Frid-Jimenez said. "I'm not at all afraid that AI will replace artists. Artists do something different than what these tools offer. ... We create new ideas and push boundaries and ask questions about how we want to live. "

Art curator Bruce Grenville, who co-curated the Imitation Game show, points out that we find ourselves in a similar moment to Léger and Murphy in 1924, one where we have rapidly assimilated new technology yet remain anxious about that. "Anyone who uses Photoshop uses AI; it's embedded in the artistic process and we have adopted it seamlessly," he said, referring to the way every digital photographic image today is touched by computing.

"DALL-E is an extraordinary achievement," he said. "Is it an artistic tool? No. Not yet. Only when it breaks down." He compared work by artists such as Frid-Jimenez to the way the surrealists of the 1920s began experimenting with photography to question the notion that it was a true representation of reality. "We have this idea that machines are a threat to human existence. Really, it's about our fear, not about the machines. Humans are the problem," he said, adding that the ethical and social issues that AI raises, who controls it and how it might be regulated, are far more pressing than any concern that it will replace artists.

And it is artists who are volunteering to instigate those urgent debates.