

Fashion designers 'cannot be beat by AI'

Technology

Artificial intelligence is transforming the fashion world, but the fast growing technology will never be a replacement for designers' "original creativity" says the head of a pioneering project.

Fashion innovator Calvin Wong Wai-keung has developed the AI-based Interactive Design Assistant for Fashion – the world's first designer-led AI system. It uses image-recognition technology to speed up the time it takes for a design to go from a first sketch to the catwalk.

"Designers have their fabric prints, patterns, color tones, initial sketches and they upload the images," he says. "Then our AI system can recognize those design elements and come up with more proposals for them to refine and modify their original design."

Wong says AiDA's particular strength was its ability to present "all the possible combinations" for a designer to consider – something he says is impossible in the current design process.

An exhibition at M+ Museum in December featured collections by 14 designers developed using the tool.

Wong stressed it was about "facilitating designers inspiration," not "using AI to take over a designers job, to take over their creativity. We must treasure the designer's original creativity."

Wong heads up the Laboratory for Artificial Intelligence in Design, a collaboration between Britain's Royal College of Art and Polytechnic University, where he is a professor in fashion.

RCA vice chancellor Naren Barfield predicts the impact of AI on the fashion industry will be transformational.

"The impact is going to be huge from the ideation and conception stage through to prototyping – right the way through to manufacture, distribution and then ultimately recycling," he says.

So-called personalization is already being used to improve customer experience with better product recommendations and more effective searches, helping shoppers find what they want quickly and easily.

But as the technology evolves so too is the range of highly specialized tools being developed.

AiDA was one of the AidLab projects showcased in the British capital ahead of London Fashion Week, which started on Friday.

Others included the Neo Couture project, which aims to use advanced technologies to digitally preserve the specialized skills and techniques used by couturiers.

With the UK fashion industry facing a skills shortage, it is creating an AI-assisted training system to help teach couture skills.

Another project aims to increase sustainability to reduce the 92 million tonnes of clothing that ends up in landfill each year.

One potential use of the AI Loupe project is to help designers overcome the problems of using so-called dead stock fabric.



Calvin Wong monitors a run through of the Artificial Intelligence-based Interactive Design Assistant for Fashion system.

Designers can photograph leftover fabric and then use the tool to get the missing details to assess its suitability for their designs. "It uses the camera as your index, the material is the QR code that brings the information," says project researcher Chipp Jansen.

The future of AI in fashion design, however, is not clear cut.

New York brand Collina Strada founder Hillary Taymour admits she and her team used AI image generator Midjourney to create the collection they showed at New York Fashion Week.

Although Taymour only used images of the brand's own past looks to help generate its spring/summer 2024 collection, looming legal issues could keep AI-generated clothes off the catwalks for now.

"In terms of fashion designed by AI I'd expect to hear from designers that there are questions of intellectual property rights," says Rebecca Lewin, a senior curator at London's Design Museum. "Because whatever comes back will have been scraped from published images, and to get that regulated will need a lot of work."

Barfield says the area will be tricky, though he expects it to be resolved through test cases and legislation.

"I don't know how fast AI will be transformational, but if it gives companies competitive advantage I think they'll invest and take it up quickly," he says.

The only thing currently holding companies back is the "massive investment" in infrastructure required, he adds. "But once they've done that they can take the plunge then they will be making savings on material waste and productivity."

As for designers' fears it might become a substitute for their creative process, he says the key is who controls decision making.

Using a "genetic algorithm" where you start with one design and use the software to generate successive ones the computer could produce 1,000 varying looks – something that might take weeks to draw, he says.

On the other hand if the designer retains control AI could offer huge benefits by hugely speeding up the process "without necessarily making the decisions for them."

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