Gaming industry puts generative AI to the test

Unity and NetEase say latest tools can make games more realistic and cheaper to make

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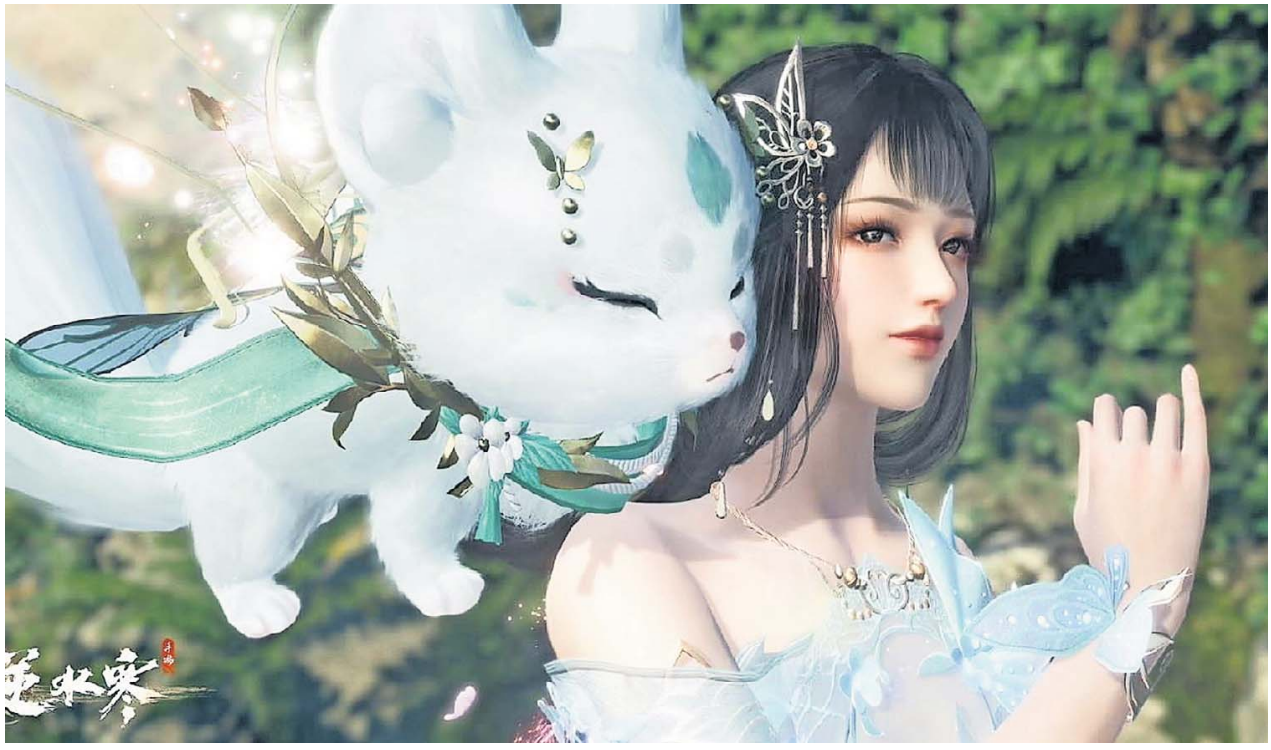


The potential of artificial intelligence to transform the video games sector will be put to the test as two of the biggest industry participants this week introduce products imbued with the latest technology.

Video game makers are hoping to cut their multimillion-dollar budgets by adopting AI development tools that can generate dialogue, characters and landscapes. From the players' point of view, the technology promises to improve their gaming experience as they interact with more lifelike characters and dynamic storylines.

Unity Software, the company behind one of the most widely used game development tool kits, this week launched AI technology that it says will simplify the creation of three-dimensional assets and animations for the 1.8mn developers that regularly use its products.

Developers can apply to test out the products that Unity launched on Tuesday. Other AI companies will be able to make their apps compatible with Unity's toolkit through a platform that the San Francisco-based company also unveiled on Tuesday.

Investor enthusiasm about the products sent Unity's share price up about 15 per cent on Tuesday.

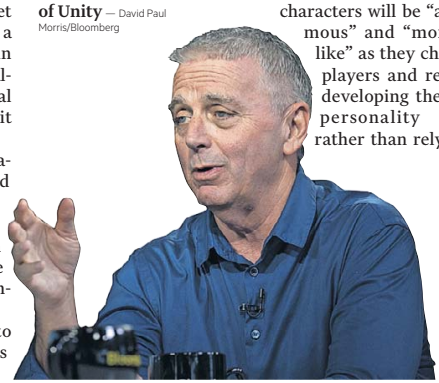
Meanwhile, millions of players in China will test similar technology when NetEase, one of Asia's largest games companies, launches *Justice Mobile*, a multiplayer title that features AI-powered characters.

Justice will be the first mass-market test of generative AI's application in a mainstream game. More than 40mn players have signed up for the martial-arts-themed game set in the medieval Song dynasty before it is due to hit mobile app stores tomorrow.

Across the industry, gaming companies are cautiously embracing so-called generative AI systems, similar to the technology that powers OpenAI's chatbot ChatGPT and image-creation services such as Midjourney, at a time when production logjams have hampered developers.

Companies have been forced to delay the release of dozens of games over the past two years, including Microsoft-owned Bethesda's *Starfield* and Nintendo's latest title, *Legend of Zelda*.

Myths and magic: NetEase's AI lab trained its large language model on Song dynasty literature to make 'Justice'. Below, John Riccitiello, CEO of Unity — David Paul Morris/Bloomberg



John Riccitiello, chief executive of San Francisco-based Unity, said the impact of AI on gaming "may be bigger and faster" than the expansion driven by earlier technological shifts such as PC graphics cards and mobile apps.

NetEase says *Justice*'s non-player characters will be "autonomous" and "more lifelike" as they chat with players and respond, developing their own personality traits rather than relying on scripted interactions as in-game personas have traditionally done.

NetEase's AI lab trained its own large language model, the same kind of technology behind chatbots such as ChatGPT and Google's Bard, on Song dynasty literature to power the in-game responses, including the characters' voices and expressions.

Elsewhere in the industry, game development using the latest AI advances remains at a more nascent stage. Ubisoft is experimenting with automating some in-game scripting with its Ghostwriter tool, while Roblox has said it will let players create in-game assets by typing a few words, without the need for traditional coding skills.

Venture investors at Andreessen Horowitz project that games will be the form of entertainment "most impacted" by generative AI. They expect large cost savings in an industry where blockbuster games such as *Grand Theft Auto* and *Call of Duty* can cost as much as hundreds of millions of dollars to create.

"AI will make a creator — whether they're an artist, coder, level designer or lighting person or any of the other specialities in 3D creation — a great deal more productive," said Riccitiello.

> 'Amazing' potential should be balanced against the claims of 'breathless hypesters'

"There will be billion-dollar franchises and $10bn franchises rising out of [AI technology] that haven't been built yet [or that have been] barely imagined."

Unity was training thousands of employees to use AI, he noted. "Every game developer I know is doing something similar."

Julian Togelius, associate professor at the department of computer science and engineering at New York University, said the games industry was entering a "period of upheaval" where the "amazing" potential of AI should be balanced against the claims of "breathless hypesters".

Togelius said: "We'll see new types of games come out that are built for this." However, he recognised the "sizeable contingent of [AI] haters in game development" as creators feared for their jobs or worried that the quality of games would suffer.