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# Investing in a more authentic customer experience

**Rakuten Securities, Deloitte Tohmatsu, and NVIDIA collaborate to build an innovative AI avatar that delivers an enhanced digital customer experience.**



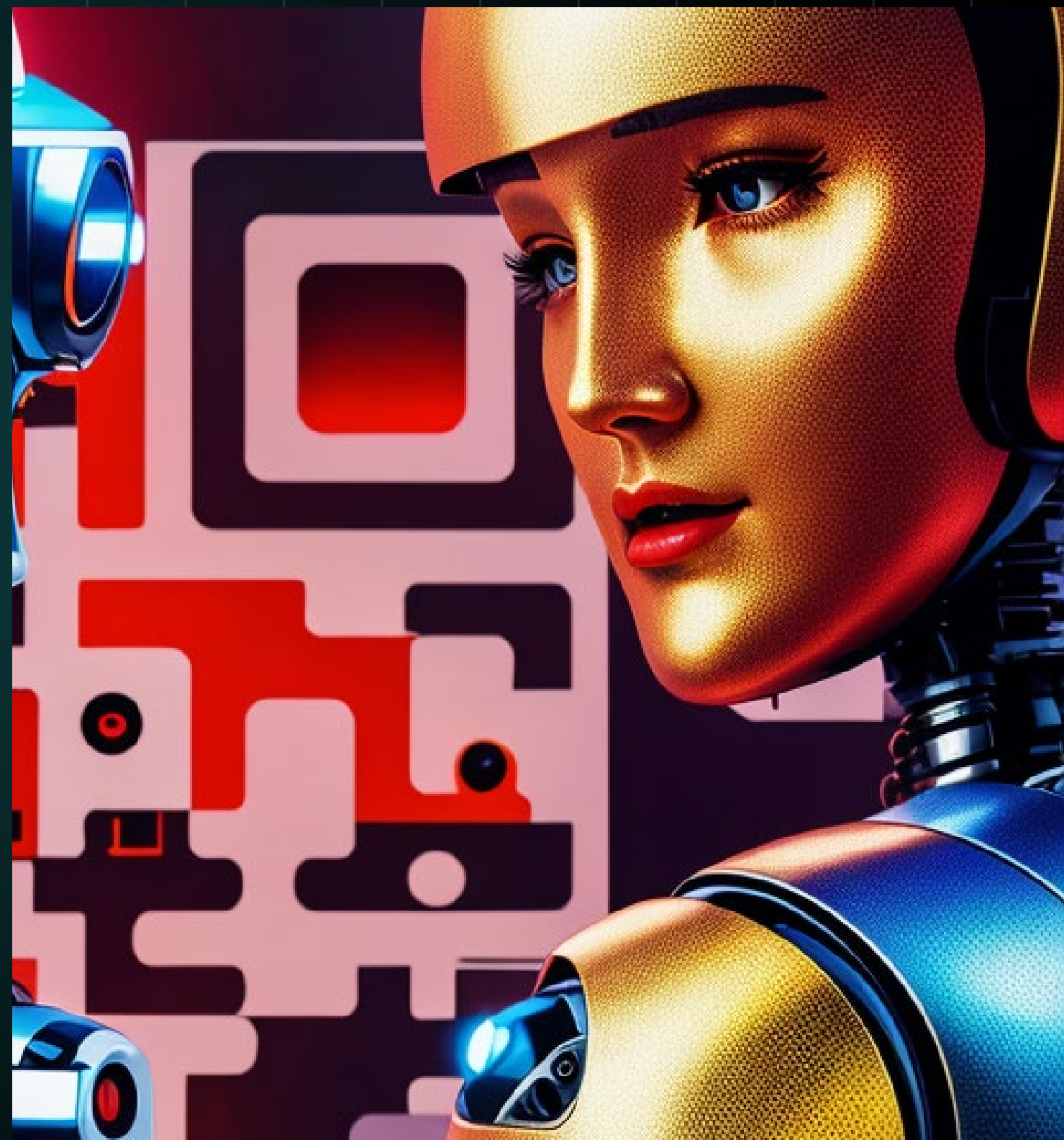
# COULD ARTIFICIAL INTELLIGENCE INSPIRE **MORE HUMAN-LIKE INTERACTIONS?**

## THE SITUATION

Humans have become accustomed to interacting with technology. Texting with chatbots. Telling an AI operator, in just a few words, how they can help. As a dedicated online brokerage service, Rakuten Securities understood the importance of delivering an outstanding digital customer experience. Rakuten Securities leaders believed emerging technologies could help the company provide an even better, more innovative, human approach.

Rakuten Securities doesn't have nationwide branches where in-person interactions between its customers and investment advisers can take place. That understanding—and an enduring commitment to innovation—helped drive the company to digitalize its operations, which provide in-depth knowledge of highly complex financial products and help optimize Rakuten Securities' human resources.

Rakuten Securities' online system is designed to connect new customers with important knowledge easily and quickly. The company reached 10 million accounts in Japan in 2023 and in the leadup to Japan's 2024 launch of the new Nippon Individual Savings Account (NISA) program, the number of account openings was growing at an even faster pace. The majority of new account openers were novice investors who were using Rakuten Securities for the first time, and the company was committed to helping them access the advice and information they were seeking quickly, and in a manner that's relatable and easy to engage with.



# THE SOLVE



Earlier programs enabled by AI could understand words they'd been trained to recognize, but generative artificial intelligence (GenAI) was transformative in its ability to leverage large language models (LLMs) and, essentially, "speak" a human language. The Rakuten Securities AI Data & Human Lab, which served as the lead organization for solution development, kept humans—customers and employees—at the center of its vision for leveraging the power of AI and data to achieve results. In July 2023, Rakuten Securities released the GenAI-enabled "Investment AI Assistant" chat service.

In parallel, Deloitte Tohmatsu and NVIDIA had each built a deep understanding of how GenAI could augment human capabilities, and both were eager to help Rakuten Securities explore how the new technology could further enhance the customer experience. They collaborated on a new system that would build upon the client's Investment AI Assistant, using NVIDIA's Omniverse™ ACE (Avatar Cloud Engine) as its foundation and Deloitte's Quartz Frontline AI™ as the next-generation user interface.

NVIDIA'S Omniverse ACE is a suite of cloud-native AI models and services that provides access to the computing power businesses need to create and deploy assistants and avatars that understand natural language, respond to speech prompts, and interact with the environment around them. Deloitte's Quartz Frontline AI service, which is built on the NVIDIA AI and NVIDIA Omniverse platforms, provides a channel-agnostic, novel human engagement mechanism that intelligently streamlines, measures, and addresses feedback.

The result was Rakuten Securities' Investment Consultation AI Avatar. A new Japanese Text to Speech (TTS) function enables the avatar to recognize a customer's investment questions and deliver a response. This is accompanied by human-like gestures from the avatar, as well as synchronized mouth movements and voice to facilitate more realistic conversation-based communication.


## THE CHATBOT GETS A MAKEOVER, COURTESY OF GENERATIVE AI

# THE IMPACT

Developed in just two months, the Investment Consultant AI Avatar made its debut on January 14 as part of the Rakuten Securities New Year Conference 2024, where customers had the opportunity to engage in conversation with the innovative service solution.

The AI implementation for Rakuten Securities, which received development support in Japan, was developed as part of Deloitte's multiyear alliance relationship with NVIDIA. Deloitte and NVIDIA are working together to develop cutting-edge GenAI solutions for enterprise software platforms across several industries.

More than 90% of the customers who experienced the avatar demonstration said they were interested in using it in the future. These users appreciated the ability to ask rudimentary investment questions and have them answered, but there was one important human quality they appreciated about the interaction: It was fun.



CUSTOMERS NEED INFORMATION. THEY WANT AN AUTHENTIC EXPERIENCE.



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