

A STORY FROM JAPAN

Robots with a Heart

Avatar Robots Create Connections for the Homebound



April 2026

FEATURE STORY

Avatar Robot Café DAWN ver.β
Nihonbashi, Tokyo

WASHINGTON | CORE

Welcome to the Avatar Robot Café

In Tokyo's Nihonbashi district, the “Avatar Robot Café DAWN ver.β,” is bustling with international tourists. A large white robot welcomes guests with a cheerful “welcome!” The café features an open, barrier-free interior with walls covered in greenery, creating a sense of freshness.

Small robots are stationed at each table, taking orders from guests, and entertaining them with friendly conversation while they wait. Larger robots carry drinks directly to customers' seats. At first glance, one might think, “Oh, this is AI.” But behind these robots are real people. They are remotely operated by individuals across Japan—known as “pilots”—who, due to illness or disabilities, find it difficult or impossible to leave their homes.

The café has become immensely popular on review platforms, such as TripAdvisor, which widely recommends it as a must-see spot in Tokyo. Apparently, even AI systems suggest it as a top recommendation for visitors to Japan.



Source: Ory Laboratory

Purpose born from loneliness: from origami to robots

This groundbreaking robot was developed and built by Ory Laboratory. The company is guided by the philosophy of eliminating human loneliness, aiming to expand the choices available to people who are unable to leave their homes due to illness or other circumstances. The founder and CEO/CVO, Ory Yoshifuji, suffered from poor health at an early age and, between elementary and middle school, spent three and a half years largely unable to attend school. In Japanese society, where conformity is often expected, not attending school can be an isolating experience.

“At the time, I didn't have a good way to express how painful it was, but looking back, I realized it was a sense of loneliness,” says Yoshifuji. He knew intuitively that this issue affected not only him, but millions of others across the world. At the young age of 17, he decided to dedicate his life to researching and solving the problem of loneliness. He has continued this work for over 20 years.

During the period of his school absence, Yoshifuji became immersed in origami. This later became the inspiration for the company name “Ory,” and for him, marked the starting point of his approach to technology design. After entering a technical high school, he focused his research on electric wheelchairs to help people with physical disabilities take part in society. This earned him high recognition, including an award at the world's largest science competition, ISEF. However, as he continued to pursue his work, Yoshifuji became increasingly aware that a number of people were still unable to participate in society and were suffering as a result.

Later, while studying at a technical college, Yoshifuji began researching AI. At first, he was excited to see programs run successfully, but he eventually realized that simply chatting with AI would not resolve the loneliness he once experienced. What was important to him when he returned to school was not just being able to interact with others, but being able to establish a connection.

He also became convinced that a sense of purpose—the feeling of being needed by others—is essential for alleviating loneliness. Therefore, when he enrolled at Waseda University, he shifted his focus toward developing robots that connect people to one another.

Avatar robot OriHime: a sense of presence across distance

The avatar robot “OriHime,” developed by Yoshifuji, is not just a robot or a communication device; it is a medium that connects people. A real person is “there” on the other end, serving as the robot’s pilot.

At the DAWN café, pilots remotely operate the robots, engaging in conversations with customers, who are often deeply moved by these interactions. Many of the customers are international tourists. One of the joys of traveling abroad is interacting with local people, but in reality such opportunities can be surprisingly limited. “In this café, you can take your time talking with the pilots—even though they are physically far away,” explains Yoshifuji.

Guests can learn about different regions of Japan from Hokkaido to Kyushu directly from pilots who live there, all without leaving Tokyo.

“In a sense, this café feels like a kind of tourist information center,” Yoshifuji says. The pilots, many of whom study English diligently and work hard to convey the appeal of Japan, are creating meaningful and memorable experiences for visitors from around the world.

Incidentally, the name OriHime combines “Ori,” which refers to Ory Laboratory and also means “to weave” in Japanese, with “Hime,” meaning “princess.” Orihime is a well-known figure from Japanese legend.

From inexperienced service workers to reliable professionals

Piloting the robots also brings a sense of purpose to the pilots themselves. More than 100 pilots are currently registered, with about 40% of them never having been able to work before due to being bedridden or facing other conditions that kept them homebound. Some have never even stepped foot inside a café.

However, within just a few months of starting work, these home-bound workers experience remarkable growth. They gain confidence in customer service, garnering praise on online reviews, sometimes even being mentioned by name by customers who write “It was great to talk with so-and-so.”

“Right now, society seems to be moving toward a future where everything becomes more convenient,



Source: Ory Laboratory

and people no longer need to do anything for themselves,” says Yoshifuji. However, at this café, the reverse is occurring. People who, thanks to social safety nets, do not need to work are choosing to do so, driven by a strong motivation to be useful to someone. They learn the work and study English.

“Capable people probably wouldn’t do this. It’s precisely because they can’t that they are able to think seriously about how to make it work. That’s why what they cannot do has value,” Yoshifuji says.

Purpose and relationships: the keys to relieving loneliness

The pilots often say that “helping others is what makes life meaningful.”

Having worked closely with many individuals affected by ALS and other conditions, Yoshifuji reflects on his own experience of being absent from school. He recalls feeling deeply uncomfortable about having to rely on his parents for everything—to the point that he even used formal, polite language with them.

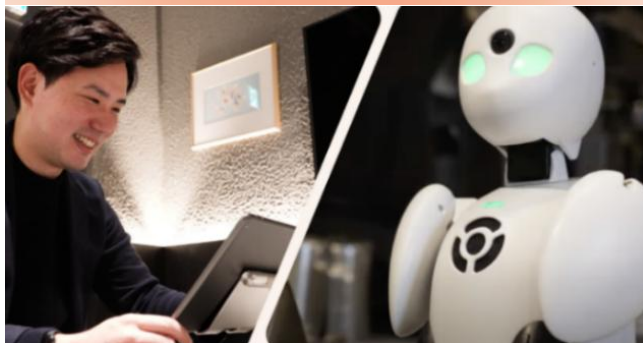
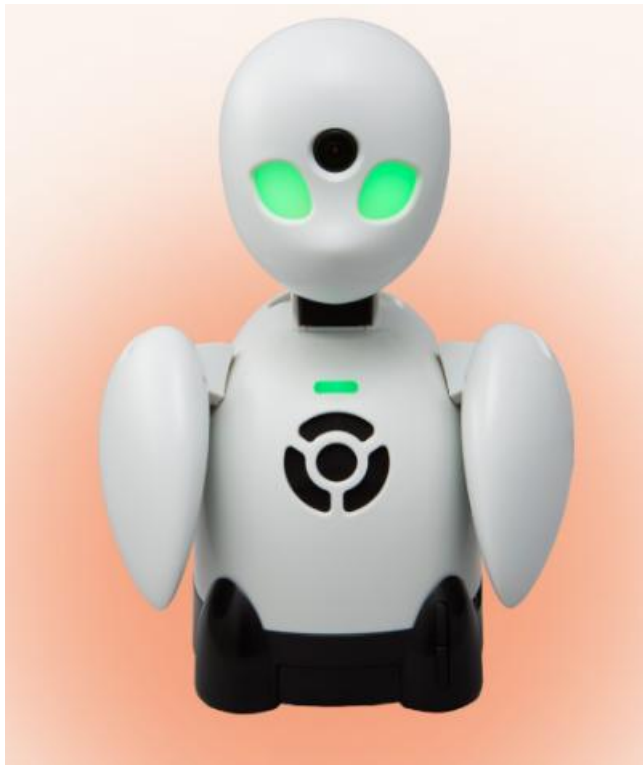
“It gradually shifted from ‘thank you’ to ‘I’m sorry,’ and eventually to ‘I don’t need anything anymore,’ and finally to ‘please just leave me alone,’” he recalls. “The feeling that I was nothing more than baggage that hadn’t entered society made life truly difficult.” This sense of not being able to belong, he argues, is one form of loneliness.

What allowed Yoshifuji to return to school was having a role: “a student who attends school.” He believes that having a role creates points of contact with others, and those points of contact give rise to relationships, which in turn create a sense of belonging. “When you have a role, it creates a place where you feel you’re allowed to be,” Yoshifuji says.

Technology-grounded approaches to reducing loneliness

In the United States, which leads the global AI market, efforts to address social isolation among older adults through AI-powered robots have been underway for several years. AI robots can handle complex topics and serve as good conversation partners and watchful companions for elderly users, functioning as at-home partners that complete their role within the household.

In New York State, such robots have already been provided to certain older adults. In February of this year, The New York Times wrote a story about an octogenarian woman who gradually began to open up to a robot during her lonely days, painting a largely positive view of the role AI could play.



Source: ElliQ official website / Ory Laboratory

OriHime and AI-powered robots both approach the modern challenge of loneliness through robotics

technology, but the philosophies underlying them are strikingly different.

OriHime is an “avatar” operated by a person in a remote location. It creates a role of “being needed by someone” for human beings, and the relationships nurtured from that role lead to a sense of belonging and the easing of loneliness. People who cannot move freely venture out into the outside world—for example, by serving customers in a café through the robot—and discover a place where they belong.

Reaffirming the value of humanity in the age of AI

Today, automation driven by AI is rapidly advancing, and society seems to be heading toward a future where humans don't need to do anything for themselves. Yoshifuji deliberately takes the opposite path.

“Roles and relationships are a kind of value that cannot be replaced by price, speed, or convenience,” he says. People may choose a trusted hairstylist over one who is cheaper, faster, and more conveniently located. Such things are the irreplaceable value of an individual person. “To put it pointedly,” he says, “we are now living in an era where ‘existence’ itself carries value.”

In theory, the Avatar Robot Café could grow into a system in which robots are trained to serve customers without human remote operators. “But I don't think that would have any value,” Yoshifuji says. “Everyone today loves AI and is focused on automation. We are deliberately trying to create value that AI cannot make. That is the position we are taking.”

Robots in Japan: a uniquely balanced approach

There is a reason behind OriHime's lovable yet somehow mysterious design.

“In Hollywood films, robots almost always rebel and have long been portrayed as something to be feared. In contrast, Japan has a cultural tendency to depict robots positively—for example, through manga that depict friendship with robots,” says Yoshifuji. He notes a national sensibility that is open to accepting robots in a positive light. A well-known example is Astro Boy, a kind-hearted and brave robot that became hugely popular in Japan in the 1950s and 1960s and is also relatively well-known overseas.

In designing the robot, Yoshifuji and his team explored a wide range of patterns through extensive trial and error. Eventually, they settled on a design motif inspired by Noh masks—the masks used in the traditional Japanese performing art of Noh, which appear to convey a wide range of expressions.

By stripping away detail from the face, the design conveys both a sense of uncanniness and cuteness, producing a deliberate fluctuation in first impressions. Because the perception remains in flux, the viewer's impression naturally converges toward the image of the pilot operating the robot. This, Yoshifuji explains, is the design concept.

A carefully balanced presence—“not overly there, yet still there”—removes the sense of pressure that can sometimes arise in face-to-face human interaction, enabling more comfortable dialogue. Both the operator and the person interacting with the robot can feel “just the right distance,” which is precisely why a deeper impression remains and one can imagine the other person.

“Looking inside the café today, I feel that the level of detail in OriHime's face and its small size work very effectively,” Yoshifuji says.

Pivoting toward sustainable future development

Yoshifuji is not merely a researcher who talks about ideals. His development involves steady trial and error, and he also has a level-headed business mindset.

“It is absolutely necessary to think about how to develop the business. If you spend all your time just maintaining the status quo, you won't be able to do the next thing, and to keep taking on new challenges, it's truly important to assess whether what you've built will continue to be used,” he says. He had also set a strict condition for the Avatar Robot Café: if the business could not be sustained within two years, it would have to be wound down, no matter how



Source: Ory Laboratory

meaningful it was. The café achieved profitability within two years, allowing it to continue its activities meaningful it was. The café achieved profitability within two years, allowing it to continue its activities

and grow into the highly popular establishment it is today.

Tackling loneliness through communication

“Eliminating human loneliness through communication.” Gathering more supporters and collaborators who resonate with this aspiration, Yoshifuji is pushing forward to realize the future he envisions.

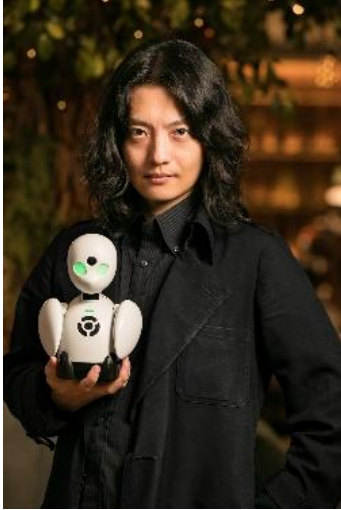
Asked, “If you could create an avatar of yourself, what would it be?” he laughs and replies, “In my old age, I'd like to be a smug, unshakable cat at a cat café and serve customers.”

“Right now, with AI, we are trying to create a future where people can live without having any role at all,” Yoshifuji warns. “But that is also connected to building a world in which no one is needed by anyone.

“However, if today's technologies like AI can give rise to loneliness, then technology is also something that can resolve it. Thinking that way, we can use technology to eliminate loneliness.”

Beyond Yoshifuji's gaze lies the image of a future in which everyone has a role through technology and is freed from loneliness.

Ory Yoshifuji, Founder, CEO and CVO, Ory Laboratory



Drawing on his three-and-a-half-year experience of being absent from school and withdrawn from society, Yoshifuji decided at the age of 17 to dedicate his life to “eliminating human loneliness.” In 2010, he unveiled OriHime, an avatar robot positioned as “another body” and as a tool to enable social participation even for those unable to leave their homes.

In 2016, he proposed a new form of employment—telework for customer service and physical labor using avatar robots—and conducted a social experiment, the “Avatar Robot Café,” in 2018. In collaboration with many “senior peers with physical disabilities,” he opened the permanent experimental location “Avatar Robot Café DAWN ver.β” in June 2021, where 60 people who are unable to leave their homes for various reasons work. The project demonstrated that even individuals who are bedridden or have little employment experience can engage in remote work through avatar robots, and was selected as the Grand Award winner of the 2021 Good Design Award out of 15,000 entries, as well as receiving the Golden Nica at that year’s Ars Electronica.

By offering a “role” to people who had lost their connection with society and become isolated, and a “way to hire” to companies seeking to employ people with disabilities, he continues to create real-world implementations across multiple companies and municipalities.

Books: Loneliness Can Be Eliminated, The Cyborg Era, Weapons for the Future.

Endnotes

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5. <https://www.nytimes.com/2026/02/12/us/elliq-ai-robot-senior-companion.html?smid=nytcore-ios-share>

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