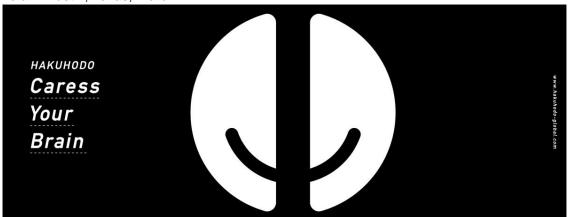


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Hakuhodo to have its own booth at South by Southwest 2018 and unveil technology designed to "caress your brain"

Tokyo—February 22, 2018—Hakuhodo Inc. (Minato-ku, Tokyo; Masayuki Mizushima, President & CEO), Japan's second largest advertising agency, is proud to announce that it will have its own booth at the South by Southwest Trade Show (SXSW) 2018, a globally renowned showcase for technology startups to be held in Austin, Texas, March 11–14.



The theme of the Hakuhodo booth this year will be "Caress Your Brain." Achieving coexistence between people and technology is a major challenge these days. Hakuhodo believes that the technology of the future will need to possess three qualities: humanity, meaning that it is ultimately designed to expand human potential and the range of human activity; educational value, meaning that it cultivates the values of the next generation; and physicality, meaning that it appeals to the bodily senses that make us human and is emotionally inspiring. This year our booth will exhibit products that caress the brain by gently working on people's sensibilities and emotions and delighting the mind. It will bring the world Hakuhodo's vision of how people and technology should coexist, inspired by our philosophy of *Sei-katsu-sha* Insight. This sees people not as mere consumers but as *sei-katsu-sha* unique individuals each with their own lifestyle, aspirations, and dreams. It is a people-oriented rather than technology-oriented way of thinking.

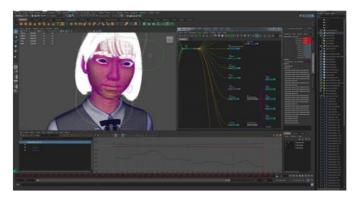
The booth will display and demonstrate unique technology developed or co-developed by Hakuhodo. This includes Saya the Virtual Human, a computer graphic schoolgirl who moves so naturally that she can claim to be the first computer simulation to successfully cross the "uncanny valley"*; and Qoobo, a therapeutic robot in the form of a cushion with a tail.

*As robots and computer graphics come to resemble actual humans, at a certain point they become downright creepy. That phenomenon is termed the "uncanny valley."

■ Technologies on display

Saya the Virtual Human





♦ About the technology

Saya the Virtual Human, a Japanese schoolgirl rendered in 3D computer graphics, can claim to be the first computer simulation to successfully cross the "uncanny valley". Hakuhodo has developed interactive functions and designed entertainment features for the upcoming trade show. The life-sized Saya (the CGI model of Saya the Virtual Human) uses deep learning to analyze, in real time, the expression on the face of the person standing in front of her, and infers how the person is feeling (facial expression recognition using AI). Based on her inferences, she then reacts interactively just like a real seventeen-year-old Japanese schoolgirl. For example, she shyly averts her gaze if you look into her eyes, appears startled if you make a sudden move, and smiles abashedly if she sees a smile on your face. Each action is tailored to its context. Her ability to recognize facial expressions enables her to engage in nonverbal communication.

With her very human gestures and facial expression recognition technology, a number of applications are envisioned for Saya in the future: as a home assistant, on multilingual signage targeting visitors to Japan, or for monitoring nursing home inmates.

◆For further information visit: https://www.telyuka.com/ (in Japanese only)

Qoobo





♦ About the technology

Qoobo is a therapeutic robot in the form of a cushion with a tail that reacts when you stroke it. It was developed by Yukai Engineering with the idea of bringing the pleasure and therapeutic benefits of a pet to people who are unable to have one because they live alone or have allergies. Hakuhodo's product

innovation team monom provided development support.

Qoobo is a completely new type of home accessory: a cushion that arouses human emotions like reassurance and affection.

◆For further information visit: http://qoobo.info (in Japanese and English)

■ Technologies on display

Omedeto!









◆ About the technology

Omedeto! is a cloud-based service that delivers you words of congratulations and encouragement from all over the world in real time, via social media. Hakuhodo is in charge of planning the service and designing the user interface and system architecture.

With barriers to global communication lower than ever, Omedeto! aims to launch the "cheering economy" worldwide: sharing feelings of joy with others across the ocean through messages of congratulations.

◆For further information visit: http://omedeto.world/ (in Japanese only)

Floticon Balloons



♦ About the technology

Floticon Balloons are balloons illuminated with letters and designs. Any pattern you like can be depicted inside the balloon, and two different patterns can be displayed. The design systems are now all in place, and the goal is to commercialize the technology as a new communications medium using

balloons.

Hakuhodo is responsible for planning, design, and directing production.

◆For further information visit:

https://www.youtube.com/watch?v=QBe1Bbwbqwg&feature=youtu.be (in Japanese only)

■ Supplementary exhibit (video only)

Note: The actual game will be on exhibit in Salons C, D, and E at the Hilton Austin Downtown.

eBALLution

Finalist, AI & Machine Learning SXSW Interactive Innovation Awards



♦ About the technology

eBALLution, a system for digitizing ball games developed by Akatsuki Inc., Hakuhodo Inc., and Ath-Tech Lab (DataStadium Inc. and Qoncept, Inc.), represents the next generation in sports enjoyment. With just a store-bought camera, projector, and computer, this technology enables any sport that uses a round ball to be turned into a digital game by applying image recognition and trajectory prediction technology using machine learning.

The first game to be developed with the technology, PONG!PONG!, is a table tennis-style block-smashing game in which you use a real Ping-Pong ball to hit the blocks projected on the table. The player who smashes the most blocks wins. There is a Stage Select feature that lets you adjust the game to your skill level, plus killer techniques that allow anyone to come back from behind depending on the character they choose.

eBALLution is the only entry from Japan to be nominated as a finalist in the AI & Machine Learning category of the SXSW Interactive Innovation Awards at SXSW 2018.

◆For further information visit:

http://www.asobilabo.com/tq/pongpong/ (in Japanese)
http://www.asobilabo.com/tq/pongpong/en/ (in English)

■ Supplementary exhibit (video only)

MR Museum in Kyoto: Wind and Thunder Gods × HoloLens





♦ About the technology

MR Museum in Kyoto: Wind and Thunder Gods × HoloLens is the first installment of the MR Museum initiative, which was unveiled to the world in Kyoto on February 21, 2018, with a press conference and interactive event.

Visitors don the Microsoft HoloLens and spend ten minutes in a mixed reality environment observing one of Japan's best-known artworks: Tawaraya Sotatsu's painting of the wind and thunder gods, a designated National Treasure. A Buddhist monk filmed in 3D appears as a hologram in front of the painting and explains what inspired the artist to paint it. This is the first Japanese project to make use of Microsoft Mixed Reality Capture Studios in Seattle. The viewer gets to experience a spatial representation of the motifs that underlie the work: thunder and rain, the fertility of the land, the vastness of the cosmos.

This hakuhodo-VRAR project was jointly executed by Hakuhodo, Hakuhodo Product's, and Wise Inc., all three of which are certified Microsoft MR partners

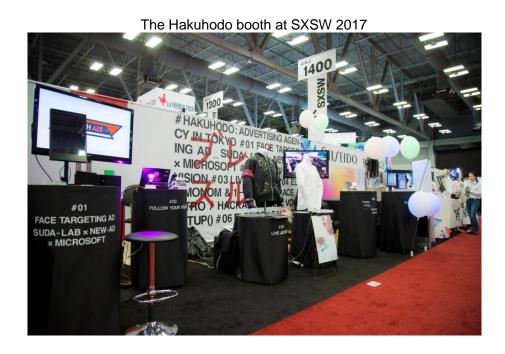
◆For further information visit:

https://hakuhodo-vrar.jp/kyoto2018/ (in Japanese) https://hakuhodo-vrar.jp/kyoto2018/en (in English)

*There will be other technologies on display besides those described here.

■ About SXSW

South by Southwest (SXSW) started out in 1987 as an indie music festival and later expanded into film and interactive media. It has now become a ten-day series of art events and conferences that draws tens of thousands of visitors, making it one of the largest such gatherings in the world. It has attracted the limelight in recent years as a venue for unveiling prototype products and services packed with business savvy.



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■ About Hakuhodo

Founded in 1895, Hakuhodo is an integrated advertising and communication agency headquartered in Japan. The core agency of the Hakuhodo DY Group, Hakuhodo is the world's 6th largest advertising agency according to Advertising Age's "Agency Report 2017."

The Hakuhodo Group has offices in 20 countries and regions, and over 10,000 specialists working in Japan and abroad. Hakuhodo is strengthening its structure in emerging countries, particularly those in Asia, as it prepares to further expand its business across the region.

Sei-katsu-sha insight is the foundation for Hakuhodo's thinking, planning, and brand building. It reminds us that consumers are more than shoppers performing an economic function. They have heartbeats. They are individuals with distinct lifestyles. Hakuhodo introduced this term in the 1980s to emphasize its commitment to a comprehensive, 360-degree perspective on consumers' lives.

Renowned for its creativity, Hakuhodo has twice won the Grand Prix at Cannes Lions International Festival of Creativity, and was the only agency headquartered in Asia to be awarded a Special Lion commemorating Cannes Lions' 50th anniversary in 2003.

To learn more, visit: www.hakuhodo-global.com