

ADVERTISING

Ad hominem: Billboards that watch you

Electronics company tests digital advertising in Japan that uses facial-recognition software to craft ads for specific passersby

DANIELLE DEMETRIOU TOKYO

A young woman in a blue suit passes a flashing billboard in central Tokyo. Within seconds, the screen flickers and an advertisement suggests a crisp glass of white wine and a plate of prosciutto at a nearby Italian restaurant.

It appear like just another ad – except there is a difference. The billboard has not only identified the passerby as a female office worker in her thirties, it's also decided she is the kind of person who would sooner choose a classy Italian restaurant over the beer-bars favoured by her male colleagues.

Welcome to the future of advertising. Lurking among the conventional advertisements that cover Tokyo are a new generation of intelligent digital billboards. Created by the electronics company NEC, they use sophisticated facial-recognition technology to tailor the ad message based on the appearance of the passerby and the surrounding environment.

And so a young women identified as a stylish 20-something may be informed about a newly opened boutique just around the corner. Or a middle-aged man walking down the street in a downpour may see a flashing image advertising the nearest store selling raincoats.

“The billboards identify consumers in terms of their age and gender as well as intelligently assessing other surrounding factors,” NEC’s Chris Shimizu explains, demonstrating the billboard at the company’s Tokyo showroom. “Depending on whether they are wearing a suit or T-shirt and jeans, they can tell whether they are a student or a salaryman and advertise accordingly.”

He added: “These billboards are a world’s first in terms of the level of sophistication involved in the technology, which enables them to identify these very spe-



NEC's billboards can identify the age, gender and clothing of passersby. DANIELLE DEMETRIOU FOR THE GLOBE AND MAIL

cific details.” The billboards bring to mind scenes once deemed farfetched from sci-fi movies such as *Minority Report*, in which a billboard scans Tom Cruise’s iris before declaring: “John Anderton, you could use a Guinness right about now.”

Tokyo’s new billboards don’t quite so far as to identify consumer by name, but they are likely to be just as confident in suggesting a beverage likely to entice a thirsty individual.

Key to the technology is a small camera above the screen that

transforms the image of the person into data, which is then matched to a database of 10,000 profiles of real people in an in-built computer system.

Once matched, the technology can confirm – with 85 to 90 per cent accuracy – the person’s gender and age, and take a good guess at social status and lifestyle as well.

Consumers who scan the advertisements with their mobile phones can receive restaurant menus or shopping information tailored to their identity directly in their phone.

“These systems are very flexible, depending on the client,” Mr. Shimizu says. “They can be programmed to take into account the weather and time of day as well as the individual’s profile.”

And they are set to become increasingly common. Since the billboards were first piloted this summer, they have been bought by 10 major Japanese companies, from restaurant chains to department stores.

The company, which is also behind the facial recognition technology used by border controls between Hong Kong and China,

HOW THEY WORK

1. A small camera above the main screen captures an image of the face of a passerby.
2. The distance between the consumer and the screen is determined to gauge the potential level of interest.
3. A computer transforms the facial image it into a digital data form.
4. The data are then compared to the data of 10,000 real people whose faces have previously been recorded in the computer’s database, along with their lifestyle profiles.
5. The individual will be categorized by gender and one of 10 age categories.
6. The computer can also judge height and clothing style, whether they are accompanied by children, or if it is sunny or raining for further specification.
7. The computer then selects pre-programmed advertising suitable for the particular category of consumer.

is currently planning an entry to the North American market.

“The use of this technology in retail spaces and points of sale will become commonplace,” says Tyron Giuliani, a consumer and advertising specialist with Tokyo-based consultancy Optia Partners K.K. “With leading Japanese technology, media and content partners like Softbank, Yahoo, NEC and NTT all working to roll out this technology and its applications, there will be no stopping it.”

Special to *The Globe and Mail*

JAPAN HOW TECHNOLOGY REACHES CONSUMERS

SOFT DRINKS

Vending machines that know what you want to drink before you do have been installed in Tokyo’s Shinagawa station. The machines, made by Acure, use facial recognition algorithms before suggesting maybe vitamin water for health-conscious women or a hot coffee for office workers.

CIGARETTES

Thousands of cigarette machines in Japan use technology that determines the age of the buyer, and refuses to allow the under 20s to buy cigarettes. The vending machines, created by Fujitaka, use sensors that detect the age of the buyer – with a claimed success rate of 90 per cent.

CELLPHONE SCANS

New and relatively rare in Canada, QR codes are booming in Japan. Users simply scan their cellphone over the small black-and-white square of pixels found in the corner of an ad, billboard or magazine page in order to receive menus, maps and discounts directly on their cellphones.

REMOTE CONTROL

Fancy playing a giant computer game in public? Veedia MobiActions consists of a giant digital public screen that passersby can control using their cellphones. When the screen was showcased in central Tokyo on the façade of a major electronics store, crowds gathered to join the live game.

HOLOGRAMS

Holographic technology that recreates virtual 3-D reality is in the pipeline, with Japanese scientists saying it could become a reality by 2016. If Japan wins its bid to host the 2022 World Cup, it has vowed to project all matches in real time holographic 3-D to 208 countries around the world.

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Tombstone Territorial Park
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View from the Trail

AFRICA

Newspaper stirs up anti-gay fervour in Uganda

Story named and identified homosexuals

XAN RICE KAMPALA

Human-rights activists have warned that the lives of gay people in Uganda are in danger, after a newspaper published a story featuring the names and in some cases photographs of 100 homosexuals under the headline “Hang them.”

At least one woman named in the story has been forced to leave her home after neighbours pelted it with stones, while other people have been verbally abused, according to the campaign group Sexual Minorities Uganda.

Stosh Mugisha, who works for an organization helping gay people with HIV, said that she was sitting in an Internet café soon after the article appeared when people suddenly started pointing at her. “I knew I had to leave, so I made my way home. I stopped to buy cigarettes at my usual shop, but the woman said, ‘No, no, you are homosexual.’ I went inside my house and boys who used to be my friends started throwing stones at the gate. I could not believe it – I thought it was a joke. Luckily I managed to escape.”

Ms. Mugisha said that since the story appeared her family had turned against her. She is now living in a different house.

The article appeared this month in the Rolling Stone newspaper, a new weekly title started by journalism graduates from Makerere University in Kampala. (The paper has no connection to Rolling Stone magazine, whose co-founder and publisher, Jann Wenner, is gay.) Its publication came just days before the first anniversary of the introduction to Parliament of a controversial bill that calls for the death penalty for those convicted of repeated same-sex relations, and life im-

prisonment for others.

On the front page, the paper says that the homosexual community aims to “recruit 1,000,000 children by 2012.” Inside, a headline reads: “Hang them; They are after our kids!!” The article lists personal details of those named, including their addresses. There are also photographs of about a dozen people listed in the story.

Giles Muhame, managing editor of Rolling Stone, who worked for Red Pepper during his recently completed studies, defended the article, saying it was his duty as a journalist to “expose the evil in our society.” “Homosexuality is illegal in Uganda but nobody is taking action against these people,” he said. “They are recruiting new members among our kids and destroying the moral fabric of our country.” Asked about the headline that urged hanging, he said: “Other countries have capital punishment to stop drug traffickers; we should have the same for homosexuals.”

Frank Mugisha, chairman of Sexual Minorities Uganda, said his organization initially chose to ignore the Rolling Stone story, since the newspaper was not widely read. It was launched in August and has a circulation of 2,000. But after a few days he started to receive reports of harassment from some of those who were named. In the worst case, a woman who works for a gay-rights organization was unable to leave her home after it was stoned.

“We didn’t want to give the newspaper publicity so we held off on legal action,” he said. “But now the threat against our members is real, so we are considering going to court.”

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