

FT Health

Combating Dementia

Monday March 12 2018

www.ft.com/reports | @ftreports

Monday 12 March 2018

★

FINANCIAL TIMES

3

FT Health Combating Dementia

Experience dementia for a day

Help Virtual reality simulator in Japan looks to end younger people's indifference to sufferers, writes *Robin Harding*

I am standing on top of a tall building and a kind-faced lady is urging me to step forward and plunge into the traffic below. "Just one step," she says. For a second, I lean out and feel a rush of vertigo as a juggernaut roars past below.

It is scary and disorienting. "What are you doing to me?" I say.

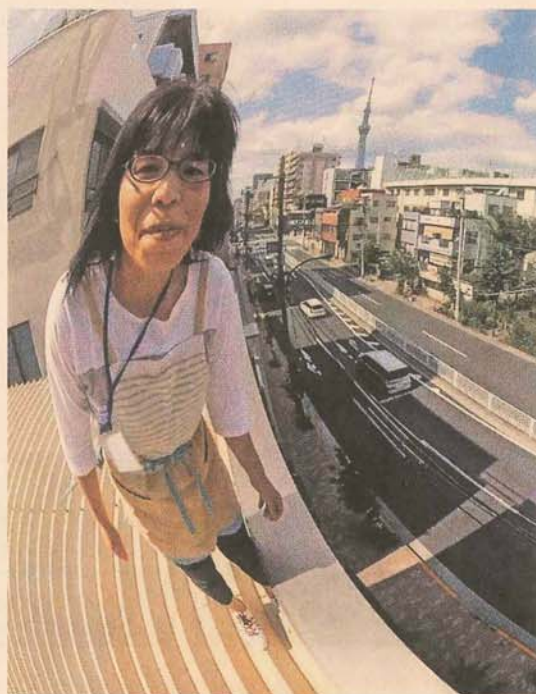
The scene dissolves and next I am sitting in the back seat of a stationary car looking out of its open door at the same woman. Again, she urges me to step forward, and I do. The car was taking me home.

I have just taken part in a virtual reality simulation of what it is like to have dementia, created by a Japanese company called Silver Wood. This particular experience simulates a condition called visuospatial dysgnosia, which involves a loss of spatial awareness so the small step down from a car felt like the height of a building.

"Dementia doesn't just equal a loss of memory, there are all sorts of varieties," says Tadamichi Shimogawara, the founder and chief executive of Silver Wood. "So far we've made 12 virtual reality episodes and they're all based on interviews with dementia patients. We've tried to reflect the world they see and experience as faithfully as possible."

As the world's fastest ageing society, Japan confronts what Masaki Muto of the International University of Health calls a "pandemic of dementia". Based on trends in demographics and lifestyle, the government expects one in 20 Japanese will have dementia by 2025, amounting to 7.3m people. By 2050 the figure will be one in 10.

According to a study by Keio University, the economic cost of looking after people with Alzheimer's disease and other types of dementia in Japan amounts to ¥14.5tn (\$128bn) a year, and will be a greater strain on the public finances in future.



Disconcerting: Robin Harding tries the VR experience (left) and an impression of what he could see — Silver Wood

But even more than a crisis of numbers, Japan is facing a crisis of empathy. In an atomised society, where the young have struggled with economic insecurity for the past two decades, there is a tendency to write off and ignore people with dementia.

That tendency is what Mr Shimogawara wants to combat with his simulations, which use standard consumer virtual reality headsets. "We want to get rid of prejudices about dementia," he says. "Rather than a dementia sufferer we want people to be seen as individuals."

His simulations vividly show the diversity of dementia. A second episode is based on Alzheimer's disease. I am sitting on a train, hearing an internal monologue agonising about where I am and whether to get off. I cannot see the station signs. None of the passengers will meet my eye. The train stops and all the other passengers get out. I follow them and stand lost on the platform. "Where am I?" I say. "Eh?" says the station attendant. "The exit is over there."

Eventually, another passenger comes along and reads the pass around my

neck, which says I have early-onset Alzheimer's. The simulation conveys the anxiety of feeling lost where nobody understands you, like being in a foreign country. "What we wanted to show here is that while it's possible to think of Alzheimer's as being a kind of disability, we've actually all been in that position," says Mr Shimogawara. "The way to help someone is just the same."

A third simulation, based on Lewy bodies dementia (where protein develops inside nerve cells), is like a horror film. I see people who are not there. The wire of a phone charger turns into a snake and writhes. Curtains move with the window closed. Some of this feels threatening and some does not, yet the people around me see none of it, carrying on a regular conversation. Dementia with Lewy bodies is a common and distressing variant of the condition. Visual hallucinations are one symptom.

Although its purpose is public-spirited, Silver Wood is very much a business, with its roots in the design of nursing homes. It has been offering the simulations as Virtual Reality Dementia

Experiences for local governments, education boards and hospitals and has had 12,000 participants since 2016.

Mr Shimogawara would like to make his dementia simulations more widely available. He sees a worldwide market for them as software applications, especially in Asian countries where populations are ageing rapidly, such as China.

Achieving that will require a step up in quality. "One of main issues is making the experience interactive," he says. At present, the simulations are 360-degree videos; a user can change what they see by moving their head, but the story always plays out the same.

Making a big social impact will depend on showing the simulations to people who do not care about dementia rather than just those who are interested enough to seek them out.

"In the world we need to support each other, but to create an environment for that, we need to know how other people feel," says Mr Shimogawara. "Using virtual reality, people can experience what the world is like for people with dementia and understand it for themselves."

Japanese providers see business opportunities

Case study

China offers a big potential dementia care market, say *Kosuke Terai and Yuichi Nitta*

Asia is ageing rapidly, but has little care provision outside the traditional family. Providers from Japan, which has the world's largest proportion of over 60s, see a big business opportunity for nursing care particularly when it comes to dementia, an illness which strikes the elderly hardest.

China, which already has 230m people over 60, is a prime target, particularly because of its one child policy which has left fewer young adults to care for the elderly.

Nichiigakkan, a leading Japanese provider of long-term care, in December opened a nursing home in Beijing for patients suffering from dementia.

The 23-bed facility caters to wealthy customers, with monthly fees starting at Rmb25,000 (\$4,000).

The fees cover specialised therapy, including group activities such as cooking and sessions to help residents remember events from their past. The company has based its programmes on similar offerings in Japan.

In China, Nichiigakkan has gone through a period of trial and error. While the company has offered home care there since April 2016, this strategy has failed to generate the expected results, as it remains common in China for live-in housekeepers to handle nursing care. Nichiigakkan suffered losses of ¥1.4bn (\$13.1m) at its China operations for the year through to last March.

The company is hoping that demand for residential care for those living with dementia will turn that loss into a profit by the end of the 2019 fiscal year in March 2020. It forecasts revenues will increase to ¥20bn, 10 times their current level, by the end of March 2021. It is set to open another facility in Beijing and homes in the nearby city of Tianjin as well as in Shenyang, capital of the northeastern province of Liaoning.

The company also plans to provide home-care services and day-care facilities near the residential homes so

that patients can benefit from different levels of care.

Medical Care Service, another Japanese company, is also aiming at the Chinese market. It opened a nursing home in 2014 in Nantong, in the eastern coastal province of Jiangsu. Now it is set to open a 150-bed facility in Guangzhou — about two hours on the train from Hong Kong.

China is not the only country in Asia with a rapidly ageing population. The number of people aged 60 or over in Asia is forecast to double from 550m in 2017 to 1.2bn in 2050, according to the UN. Dementia patients in Asia and Oceania are expected to more than double to about 70m by 2050, according to Alzheimer's Disease International.

This helps to explain why Japanese care providers are also looking elsewhere in the region. Home healthcare provider Riei began training Thai caregivers after setting up a Bangkok unit in 2003. The Japanese company opened its first residential care facility on the outskirts of Bangkok in 2016 to meet demand for nursing care.

Caregivers trained by Riei in Thailand

Riei opened a residential care facility on the outskirts of Bangkok in 2016



are on hand 24 hours a day. Residents, who are mostly Thai locals, are charged a monthly rate of 60,000 baht (\$1,900).

But Japanese companies see not only an opportunity to reach new markets but also to bring much-needed caregivers to Japan. Since December, a consortium including Japanese nursing care providers Sakura Community Service and Egao Ichiban have been experimenting with home healthcare in Myanmar's commercial capital Yangon. Sakura and its partners plan to bring caregivers trained in Myanmar to Japanese facilities through Japan's five-year foreign technical trainee programme. Afterwards, the staff will be placed in jobs back home. If the arrangement succeeds, it could help ease Japan's shortage of caregivers while increasing Myanmar's caregiving expertise.