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New bus app for visually impaired and elderly commuters

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(#2)

Mr Muhammad Hidayat, 26, a visually-impaired guide at NP's Dialogue in the Dark, tries out the TrAVEl (Travel Assistant for the Visually Impaired and the Elderly) app at a bus stop on March 4, 2015. -- ST PHOTO: TIFFANY GOH

(#1)   (#2)

BY ISAAC NEO

SINGAPORE - Three 19-year-old Ngee Ann Polytechnic students, Matthew Lee, Kok Jian Yu and Jeremy Lim, have developed a voice-assisted app called TrAVEl (Travel Assistant for the Visually Impaired and the Elderly), to help people get from place to place more easily.

It guides the user throughout his journey, including any change of buses, by using GPS to track where he is.

He can either say his destination or enter it by text.

The app lets him know when his bus arrives, and gives a running commentary of the bus stops en route, as well as alerting the traveller if he needs to change buses.

Before reaching the destination, TrAVEl alerts the user with an alarm, in case he is asleep or is distracted. And if he misses his stop, the app automatically calculates an alternate route .

TrAVEl has already been tested by visually-impaired guides from Dialogue in the Dark Singapore, a walking tour of various simulated environments in complete darkness in the polytechnic.

Mr Muhammad Hidayat, 26, one of the guides, praised the app, saying: "When we kept changing between the apps, it was very troublesome. This app is very accurate and

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concise, so I know what bus to take next and when."

Another guide, 51-year-old Sim Kah Yong, who has some degree of vision, said: "The buttons on this app are very big, and I have a little vision, so I can see the words on the app. So for the elderly, whose vision isn't very good, this will help them."

The inspiration for the app came from Matthew, who saw visually impaired people having a tough time at bus stops because they couldn't tell when the bus was arriving.

"I felt I could improve their life a bit more by developing something to help them." he said.

When The Straits Times tried out the app, this reporter noted that it could not recognise places like 'Choa Chu Kang MRT'. The students said that this was something that they needed to work on to improve the app, which is still currently a prototype.

However, they intend to improve on it and release it on Android in May. The app will be free. It took 16 weeks for the students to complete, and was developed in collaboration with SMRT, which provided them with the database of buses and the technology to calculate the arrival times.

The app is among the 50 final-year projects to be displayed at infinite 2015, the School of InfoComm Technology's graduation showcase, held from March 5-7.

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