High-tech bus stop a cross between Holodeck, iPhone

EyeStop lets you know if you have time for coffee, if you have new mail or what the weather will be like for your ride home.

LuAnn LaSalle

Grab a coffee with confidence, upload a favourite tune or find the shortest bus route to your destination and do it all at the bus stop, after you’ve dashed out the door.

All this and more will be available at something called the EyeStop, a high-tech bus shelter that will make its debut in October in Florence, Italy.

A team of researchers at the Massachusetts Institute of Technology developed the EyeStop to take some of the tedium out of waiting for the bus.

“The EyeStop could change the whole experience of urban travel,” said Carlo Ratti, head of the SENSEable City Lab at MIT in Boston.

Bus riders fortunate enough to have access to the shelter can check the temperature and air quality, upload photos, find out about community events and see where buses are in real time, said Ratti.

The shelter's interactive features make the city more alive, he said.

The Eyestop uses touchscreen technology and Ratti describes the experience as similar to using Apple’s popular iPhone. One of the more useful features, particularly for visitors to a city, is the way the Eyestop lets users visualize a bus route and plan their trip.

“You have a map where you just touch where you want to go and you will see in real time how to go there.”

If you're running late, for example, the EyeStop will start blinking rapidly to tell you to speed it up because your next bus will be along in less than two minutes.

“When there's lots of time, you will see a coffee cup so you can have a coffee before the bus arrives.”

Jeff Casello of Ontario's University of Waterloo said a number of the EyeStop's
features already are in place in many transit systems in Canada and worldwide.

But EyeStop researchers are taking them and putting them all in one place, which is “a very attractive and futuristic kind of format,” he said.

“It takes away the onus of having to wait without having anything to do,” said Casello, assistant professor in university's school of planning and department of civil engineering.

The City of Waterloo in southwestern Ontario has real-time information for its buses and destinations can be planned online, but these features aren't available at bus stops, he noted.

Real-time information is most important to riders when they're waiting 10 minutes or more for a bus or when they have several transfers to make, Casello said.

“One of the most onerous things is getting to the bus stop and having no idea how long you have to wait for the bus.”

Would EyeStop work everywhere?

Casello said it would be a challenge for some cities, given budget constraints, to maintain high-tech EyeStop shelters and advertising would likely have to support it.

MIT lab member Giovanni Niederhausern said EyeStop shelters cost between US$5,000 for a basic EyeSpot – essentially a pole designed for narrow streets – to $30,000 for a shelter with all the bells and whistles. Local advertising would help recoup some of the costs, he said.

Website Geek.com predicts vandalism will be the biggest threat that the EyeStop faces. “If the designers can overcome that hurdle then these structures could become a very nice addition to the city streets.”

Niederhausern said the Eyestop has tempered glass with an anti-graffiti film on it that can be replaced.

He said transit riders won't be able to go online to surf the Internet or check e-mail with the Eyestop's interactive services. But they can use the wireless connection to go online with their own laptops or mobile phones while waiting for a bus.

Ratti also said EyeStop shelters can be adapted to fit a city's architecture and the prototype that will be installed in Florence will reflect its history.

“We hope it will become an icon for the city in a similar way as the red telephone booth is an icon for London.”