

## Big data the key to improving urban efficiency

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Published: June 1, 2014 - 3:00AM

Cities that fail to embrace "big data" - and the meteoric rise of smartphones and the internet - to get more out of their existing infrastructure will be left behind, according to one of the world's leading "smart cities" advocates.

Massachusetts Institute of Technology professor Carlo Ratti said many disruptive internet applications had made it possible to get higher productivity out of the assets cities such as Melbourne already possessed.

Speaking at the International Transport Forum in Leipzig, Germany, last week, Professor Ratti said websites such as room-letting service Airbnb and the controversial ride-sharing smartphone app Uber were examples of how access to information meant infrastructure could be better used.

There were about 2800 rooms, apartments and houses for rent in Melbourne on Airbnb, a website that allows people to rent a spare room or an entire house or flat to strangers.

In Paris, since Airbnb's launch in 2008, there were an extra 16,000 rooms - something Professor Ratti said had negated the need to build more hotels.

"Airbnb has totally changed the way many people get a room in a different city," the 43-year-old Italian architect and engineer said. "It has done it not by building many, many new hotels, but by using spare capacity."

Airbnb has in several instances, notably in Docklands, caused issues with apartments rented out via the website used for all-night parties.

"Overall, though," Professor Ratti said, "it is a beautiful thing because it allows us, without changing the physical world, to use things better in a more effective way."

Professor Ratti was among a clutch of urban planning experts presenting at the forum. Many of the speakers focused on how "big data" is already helping the planet run its cities far more efficiently.

Professor Ratti and fellow presenters at the forum's "Transport Innovation" session argued that cities embracing innovations made available from this data - now flowing from smart phones in particular - will save or delay billions of dollars in infrastructure spending by working existing facilities harder.

Professor Ratti said that in cities whose roads are clogged to standstill by unpredictable traffic jams - "Buenos Aires, Sao Paulo or Moscow, you don't know if it will take you half an hour or four hours [from the airport] because of traffic" - building new roads is not the answer. "It will not solve the problem and it will be incredibly expensive. The only thing you can do is use the infrastructure we have better, and to do that we have to work with real-time data and synchronised traffic flows."

The forum was also addressed by Corey Owens from global ride-sharing service Uber, a smartphone app that can allow any motorist to be paid for providing lifts.

Mr Owens said taxis were an "incredibly structural problems for cities" because too often large queues of cabs were sitting at airports or in city centres for hours at a time. "That means [drivers] are struggling to provide for their families. Meanwhile, consumers are pissed at them for not providing a good service. How is it possible that both supply and demand are being failed?"

Professor Ratti said serious legal issues concerning services such as Airbnb and Uber are the result of a lack of laws around the new services. "We are seeing the difference between regulations that are based on static systems and the

ability that we have now to have much more dynamic systems."

Xerox Corporation recently delivered an intelligent parking system to the city of Los Angeles that made variable pricing possible for 6000 individual on-street spots - allowing the city to increase the cost of parking in some locations and send a message to drivers to consider parking elsewhere. It resulted in a 10 per cent improvement in traffic.

Clay Lucas travelled to Leipzig courtesy of the Organisation for Economic Co-operation and Development.

*This story was found at: <http://www.brisbanetimes.com.au/national/big-data-the-key-to-improving-urban-efficiency-20140531-39b5d.html>*