

LIVE Singapore!

The pulse of the city in real-time

The real-time city is now real! Residents and visitors in Singapore will be able to see their city from entirely new perspectives at the presentation of *LIVE Singapore!*

The project was developed as part of the Future Urban Mobility research initiative at the Singapore-MIT Alliance for Research and Technology (SMART) and brings together multiple digital data streams from the city, giving citizens access to them through a series of dynamic visualizations. SMART is a research centre of the Massachusetts Institute of Technology (MIT) funded by the National Research Foundation (NRF) of Singapore. The first public exhibition of the project is co-organised with the Singapore Art Museum (SAM).

LIVE Singapore! will be presented to the public at SAM from April 8th until May 1st, 2011 and is a convergence of art, digital media and information technology. In the museum's central 'chapel' space, visitors will see five large scale projections of unique multi-dimensional maps of the southeast Asian city state showing the movement of crowds, taxis, airline passengers, the city's fast changing microclimatic conditions, the island's electricity consumption, as well as shipping containers passing through the world's largest trans-shipment sea port in real-time.

"Over the past decade our cities have been blanketed with layers of digital information," say Carlo Ratti and Assaf Biderman, respectively Director and Associate Director of the MIT Senseable City Lab, which leads the project. "As a result we now have the ability to collect large amounts of urban data in real time, which are radically changing the way we understand, design and ultimately live in cities." They claim that the change is similar to what happened a couple of decades ago in Formula One with the advent of telemetry: "Until then, the level of success of cars racing on the circuit was due to their mechanics and the capabilities of the driver. With telemetry the car was transformed into a small computer monitored in real time by thousands of sensors, becoming 'intelligent' and better able to respond to the conditions of the race. Today the same is happening at the urban scale – with citizens and data racing to make our cities more sustainable."

"*LIVE Singapore!* closes the feedback loop between people moving in the city and the digital data generated by their actions," said Oliver Senn, a research engineer from SMART who works on the project. "The LIVE Singapore platform allows for the collection and combination of multiple data streams. In the exhibition access to data is provided through dynamic data visualizations that offer new insights into Singapore's urban dynamics".

"*LIVE Singapore!* raises the intriguing prospect of a map drawn on the basis of dynamic elements of which the map itself is an active part," commented Kristian Kloeckl, the project's leader. "The project will give Singaporeans a new awareness of how their city behaves and pulsates in response to their actions. Once again Singapore is pushing the boundary of urban innovation: the project goes beyond several open data initiatives that have been launched over the past two years (such as data.gov in the United States) by making data publicly available in real time. The exhibition at SAM is just the beginning of something that aims to develop into an open platform for the management of urban real-time data and the engagement of developer communities in writing innovative applications for the city."

"We are pleased to support the presentation of LIVE Singapore!. It is an exciting project that taps into the visual language of art and design to translate scientific data into stunning graphic presentations so that people can 'see' or understand their real environment better. It complements the museum's efforts to offer visitors new perspectives to the world around us through various forms of contemporary art, including digital media," said Tan Boon Hui, director of the Singapore Art Museum.

The *LIVE Singapore!* partners are Changi Airport Group, ComfortDelGro, NEA, PSA, SP Services, and SingTel. All data they provide are anonymous and aggregated, safeguarding individual privacy.

Besides Carlo Ratti, Assaf Biderman, Kristian Kloeckl, and Oliver Senn, the *LIVE Singapore!* team includes Afian Anwar, Rex Britter, Xiaoji Chen, Darshan Santani, Aaron Siegel, Christian Sommer and Dustin York.

The exhibition runs from April 8th until May 1st, 2011 at SAM Chapel at 71 Bras Basah Road, Singapore 189555. Starting April 14th until 14th May two of the projections will also be shown at URA's Marina Bay City Gallery at 11 Marina Boulevard, Singapore 018940.

More information: <http://senseable.mit.edu/livesingapore> | <http://www.singaporeartmuseum.sg>