Cell phone data allows diagram of city's movements

In this image, MIT researchers have superimposed an electronic representation of cell phone activity in Graz, Austria, over a map of the city. Researchers collected data on thousands of cell phone users across Austria's second-largest city to map where cell phone use is the highest. (AP Photo/Courtesy of SENSEable City Laboratory, Massachusetts Institute of Technology)

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By JONATHAN DREW

One way to diagram a city's blood flow: follow thousands of people to and from work, on errands and lunchtime strolls.

The way researchers at MIT did it, though, was to monitor the locations of thousands of cell phone users in Austria's second-largest city, Graz. Using data from one of the country's largest wireless carriers, they created maps showing where cell phone calls were placed, how calls were switched from one cell tower to another and where users went around the city.

Starting Oct. 1, the MIT researchers will display real-time animated maps of cell phone use and cell tower activity at the Kunsthaus Graz. Thousands of cell phone users have agreed to have their positions tracked in real-time and displayed on a continuous traffic map of the city.

Architect and urban planner Carlo Ratti, the project's leader, said he hopes the exhibition will provoke people to think about the benefits and drawbacks of technology that traces the location of cell phones.

"This type of data is becoming more and more available, and it's important that the public think about how it's being used and who has control of the data," he said.

Techniques similar to those used by Ratti's team have already proven useful to law enforcement. Authorities tracked down a suspect in the London bombings by tracing his cell phone from one European city to another, finally arresting him in Italy.

Ratti also said city and road planners could save money on expensive traffic surveys by relying more on cell phone location data.

"This would be every traffic engineer's dream," he said.

asap reporter Jonathan Drew never leaves home without his cell phone.

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