SENSEable City reveals 'friendspotting,' new MIT social networking form

December 13, 2006

MIT researchers today unveiled a new social networking application that will make it possible for anyone on the Institute's 168-acre campus to locate anyone else, via their laptop.

Known as iFIND, the new technology was developed by researchers in the Institute's SENSEable City Laboratory.

iFIND will give all 20,000 members of the MIT community the ability to accurately calculate their location on campus, using WiFi access points, and to choose if, when and with whom they want to share it with. It could become another case of campus culture having a major impact on the real world, like Facebook or YouTube, researchers said.

Carlo Ratti, director of the SENSEable City Lab, described this new form of social networking as "friendspotting": "Imagine coming out of a class in a faraway corner of the MIT campus, and instantly knowing which friends are nearby, or being able to dynamically schedule an appointment with a faculty member based on his or her proximity to you," he said.

With almost 3,000 WiFi access points, the MIT campus is one of the most densely networked areas in the world. Such connectivity has changed the nature of social encounters on campus. Untethered to Ethernet cables, students, faculty and staff spend longer hours away from their offices and workstations. Cafes, lounges--sometimes just a lawn under a tree or a bench overlooking the Charles--are becoming normal workspaces.

In such a wired yet diasporic environment, new social issues emerge: How can you know where your friends are? How can you increase the chances of casual encounters with classmates? How can meetings be more effectively coordinated, in real time?

"Our goal was to create a tool that would allow friends to keep track of friends and increase serendipitous connections," said Ratti, whose research projects have explored the connection between wireless technologies and physical space.

iFIND is unique compared with similar applications that are being developed for the market, in part because of the extreme precision of its positioning system. More significantly, iFIND has been built with particular attention to privacy and data storage issues. There is no centralized storage of data, and everything happens on encrypted peer-to-peer transmissions among users.

"The system is device-centric, not network-centric. All the intelligence is inside the client application instead of on a central server, so nobody can track your position unless you want them to, and you decide how to exchange information with the outside world," said Ratti.

iFIND's distributed platform gives users full control over the sharing and anonymization of their data--something that could help solve today's growing concerns on privacy. iFIND currently deals with location data, but a whole array of additional personal information could be managed using the same interface and platform.

Future applications of iFIND will include the ability to select third parties as "friends" and letting them share data anonymously. Thus, an iFIND user could let the police department know where they are in case of emergency.
could let the police department know where you are in case of emergency, but without revealing your identity," said Francois Proulx, a visiting student from the École de Technologie Supérieure in Montreal and an iFIND project leader.

iFIND’s locationing platform was made possible by the WiFi initiative at MIT, spearheaded by Information Services and Technology (IS&T), which in 2005 realized its goal of making MIT a fully wireless campus.

“Our goal is to ensure that the MIT campus has the most up-to-date wireless technology to encourage the implementation of new integrated communications applications such as iFIND," said Jerrold M. Grochow, vice president for IS&T. "MIT’s network infrastructure is capable of supporting any number of these types of experimental services.”

Anyone with an MIT e-mail address can use iFIND.

A version of this article appeared in MIT Tech Talk on December 13, 2006 (download PDF).