

▼ THE PLACELAB

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to your wrist, ankle, waist, or other part of the body to detect physical activity. The device can be programmed in conjunction with other sensors to distinguish between different types of activity, such as sitting or standing, walking or running, brushing teeth or scrubbing windows (remember, the PlaceLab is just like home).

The other type of MITes is designed for stationary placement in or on something, such as drawers, doors, switches, and telephones. The device remains in sleep mode until the object to which it is attached is moved. It then wakes up and sends a signal to the data-gathering equipment, indicating when its drawer or door was opened or closed, or its light switch turned on or off.

Driving the sensing, recording, and computing power are the researchers' needs for details about a person's behavior in a home environment, and how that behavior relates to whatever technology is being tested. As Intille put it, "It's about understanding all the little things that would make or break whether or not a particular device is going to work for that person."

Tuning In

So far, in addition to House_n and TIAX projects that tested sensors, two Media Lab thesis projects have made use of the PlaceLab for research. Pallavi Kaushik, a master's candidate in Media Arts and Sciences, used the PlaceLab to study a reminder system for adhering to a medication regimen. Kaushik's system takes into account what the person is doing to make the reminders context-sensitive. For example, the reminder may be presented in one way if you just got out of bed, but in another way if you are cooking a meal. And if the system sensed that you took the medication before being reminded, it would acknowledge that or just keep quiet.

Jason Nawyn, also a master's candidate in Media Arts and Sciences, developed a system to motivate less-sedentary behavior and more physical activity – in other words, stop watching TV and get moving. Nawyn based his system on theories of behavior modification to persuade in a nonintrusive, positive manner, so that it is not seen as an annoyance.

Part of the reasoning behind these projects, and others envisioned for the PlaceLab, is to develop systems attuned to a person's activity, so that reminders and other kinds of prompts may be perceived as less disruptive, and more

helpful and welcome. For Intille, it is about "the subtle use of technology to enhance the quality of life in the home."

A Place to Stay

The PlaceLab is open to researchers from departments across MIT, as well as organizations outside of MIT. One of its key functions is to be an intermediate testing facility between a lab situation and a study that involves several homes using portable sets of sensors. It serves as a "scientific instrument" for pilot testing and preliminary data gathering before moving to larger-scale studies. Interested researchers should send mail to Stephen Intille <intille@mit.edu>.

And about that "ad"? It is for real: the PlaceLab is seeking to increase its base of volunteer study participants, which means a stay in the condo of two weeks or more. For details, send email to <homestudy@mit.edu>.

To learn more about the PlaceLab and its partners, see

House_n

http://architecture.mit.edu/house_n/

The PlaceLab

http://architecture.mit.edu/house_n/placelab.html

TIAX, LLC

<http://www.tiax.biz/> ☉

MIT's Wireless Casts a Wide Net

MIT's campus-wide wireless network is nearing completion. IS&T has expanded the network by 1800 access points in 18 months, bringing the total number of in-building access points to about 2800. Starting this fall, IS&T will work with the MIT Housing Office and departments, labs, and centers on wireless experiments for outdoor spaces, with the goal of developing a fully wireless campus by next summer.

You can view coverage of individual MIT buildings at

<http://web.mit.edu/network/wireless-map.html>

IS&T is striving for robust connectivity across campus. If you are aware of any weak-to-no coverage areas, send your feedback to <unwired@mit.edu>.

iSPOTS

Dovetailing with the expansion of MIT's wireless network is the opening of the iSPOTS exhibit on November 1

at the MIT Museum. This exhibit features videos showcasing the work of iSPOTS, a project led by Carlo Ratti, Director, and Andres Sevtsuk, RA, at MIT's SENSEable City Laboratory.

At the heart of iSPOTS is the observation that "the effects of complete wireless coverage are monumental, as traditional work spaces are abandoned in favor of more enjoyable environments such as campus lounges and public spaces." iSPOTS is documenting these changes in real time on an electronic color map, using log information from MIT's wireless network. Over time, this monitoring will highlight how technology is modifying the use of public spaces on campus.

iSPOTS is also developing an applet that will let wireless users share their MIT location information with others. A third planned initiative is the implementation of a voice-over-IP system running on MIT's wireless network.

To learn more about iSPOTS, see <http://ispots.mit.edu/ispots.html> ☉



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