

Researchers develop security application to keep private data private

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This is the Locacino application as it appears on a PDA. Credit: AFTAU

Privacy in the digital age is a sensitive issue for both governments and individuals, as recent news about WikiLeaks and Facebook proved. A new research project at Tel Aviv University may better educate citizens of the virtual world about their privacy -- and even help Facebook users avoid truly embarrassing moments.

It's all about fine-tuning [privacy settings](#) based on user information and behavior, says Dr. Eran Toch of Tel Aviv University's Iby and Aladar Fleischman Faculty of Engineering. His software solution, Locacino, is

based on better security design, and provides users with a higher degree of control over their privacy settings. It also provides a glimpse into how people really share information between friends over the Internet.

Facebook's privacy settings — or the lack thereof -- can cost us relationships or a future job. But knowing how to fine-tune our settings can save a lot of future heartache, says Dr. Toch, whose research was recently presented at Ubicomp, a leading conference on mobile computing.

Guarding your "centers of privacy"

Dr. Toch's research began at Carnegie Mellon University in the U.S. and continues in Tel Aviv. In collaboration with Prof. Norman Sadeh, Prof. Lorrie Cranor, and Prof. Jason Hong, all from Carnegie Mellon University, School of Computer Science, he created Locacino, a location-sharing application that can capture end-user security and privacy preferences in mobile computing.

In most social applications, it's not easy to fine-tune privacy settings. Like FourSquare and [Facebook](#) "Places," Locacino allows its users to track their friends' physical location, but in Locacino, users can also see who is viewing their profiles and location updates, which may lead users to rethink and modify their privacy settings.

At Carnegie Mellon, he and his team conducted large experiments using the Locacino application that was downloaded to users' iPhones and Android phones. The unique mobile social network allows people to fine-tune the way they want their information about them to be presented online. Thousands of college students participated in the study.

Dr. Toch examined what kinds of location updates users are more likely to share, then determined the users' "centers of privacy." It turned out

that young people guard locations that might reveal information about their social life more than anything else, even the location of their homes or dormitories.

Locacino's flexibility allows users to let their work colleagues know their physical location on weekdays, but not on weekends. "If a friend tags you on an iPhone when you're at a pub instead of at work, you have no control over work colleagues seeing that on Facebook. But if we give users more flexible privacy settings, they're actually willing to share even more information online," Dr. Toch reports.

A difference of culture

There are cultural differences in attitudes towards online privacy as well. Next, Prof. Toch will investigate online privacy among the Israeli Arab population, and he's already discovered differences between Americans and Israelis. Israelis, for instance, would never dream of blocking their parents from Facebook, but it's common in the United States — especially when the kids are teenagers, he says.

When Locacino completes the development stage, Prof. Toch hopes that when it's widely available, it will allow users to rethink security and privacy in the digital world -- and give them the tools to better control it.

Provided by Tel Aviv University

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