

Cell phone data threatens users' privacy: expert

May 5 2011



Each time he used certain applications on his iPhone at a Seattle Mariners baseball game, the phone triangulated Kirk Goldsberry's location. While not exact (Goldsberry definitely didn't take the field), it's close enough to make it clear that he was at Safeco Field. The phone also records the exact time he was there.

The recent discovery that Apple's iPhone tracks its users' locations and automatically stores that data in unencrypted form is a "serious threat to the privacy of American citizens," argues a Michigan State University expert on digital mapping.

Furthermore, there are no government regulations or oversight in place regarding the collection or use of that private information, said Kirk

Goldsberry, assistant professor of geography.

Apple said it would fix what it called a software error in the iPhone, but Goldsberry said the case has brought bigger issues to light.

“As it stands now we’re putting a lot of blind faith in companies that are collecting, storing and using this information to do the right thing,” said Goldsberry, who blogs about the issue here. “Who knows how many other companies are doing the same thing. We should have somebody to hold them accountable for the [privacy](#) of the public at large.”

The issue surfaced April 20 when U.K. security researchers Pete Warden and Allasdair Allan announced their discovery that the iPhone keeps track of where its [users](#) go and saves every detail to a secret file on the device. That information is then copied to whatever computer is used to synchronize the iPhone, be it a home, work or school computer.

The secret file contains latitude and longitude of the phone’s recorded coordinates along with a timestamp, meaning anyone who has access to the phone or computer could know the owner’s movements using a simple program, according to a Guardian newspaper article.

The discovery, Goldsberry noted, set off a wave of media coverage, with some experts warning of the potential threat and others downplaying the risks.

In a New York Times column (“Your iPhone is tracking you. So what?”), David Pogue argued the data is stored “only on your own computer, in a buried and layman-incomprehensible form” and that the vast majority of iPhone users have nothing to worry about.

Maybe so, Goldsberry said, but even if 99.9 percent of iPhone users have nothing to fear, that means many still do. “There are literally

millions of iPhone users out there and if only hundreds have this information used against them, I think that's a big problem," he said. "That's not to mention the millions of users outside the United States – different places have different attitudes and different laws."

Goldsberry researched the issue by mapping six months of his own cross-country movements on his iPhone. As an expert in GIS, or geographic information systems, mapping, he took it a step further than the original researchers by creating more sophisticated, precise maps that reveal a very detailed picture of his own travel behavior.

In one example he produced a detailed map of a weeklong work trip to Seattle in April, which shows, among other things, a "creepy" detailed map of his attendance at a professional baseball game. "Anybody with access to my geographic data and basic GIS skills could easily discern that I was at Safeco Field to watch the Mariners beat the Blue Jays," he writes in his blog.

Goldsberry said there are likely tens of thousands of GIS-trained experts like himself who could easily turn the iPhone's raw data into a detailed map. "We have lecture halls full of students here at MSU that can do this," he said.

Apple said iPhone data are stored for as long as a year due to a software error. The company promised to limit the size of the file, encrypt the file and stop backing up the file to the user's computer. Computers are much more vulnerable to hacking attempts than phones.

Goldsberry applauded the move, but added: "I can't help but wonder whether other companies have access to the existing one year of data for millions of users."

Thus far, the Federal Communications Commission and U.S. Sen. Al

Franken have asked [Apple](#) to explain the presence of the GPS log, the New York Times reported.

But Goldsberry believes protections should already be in place. “When we have to rely on individual members of Congress to say what’s going on with this really fancy geospatial technology, I think that exposes another issue,” he said. “Where is that agency that is supposed to step in and represent the interests of the American public?”

Goldsberry said the public may be surprised who could potentially have access to this information.

“Some children are synching their iPhones at school, I’m sure. Workers are synching their iPhones at companies that may not have the best ethical practices with their privacy in mind. And I don’t know if people are quite aware of this.”

Provided by Michigan State University

Citation: Cell phone data threatens users' privacy: expert (2011, May 5) retrieved 26 April 2024 from <https://phys.org/news/2011-05-cell-threatens-users-privacy-expert.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.