

Mobile Devices and Location Privacy: Where Do We Go from Here?

Website: <http://www.computer.org/csdl/mags/sp/2011/06/msp2011060061.html>

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In today's society, it is rare for someone not to have a cell phone on them at all times. Furthermore, these cell phones are becoming more and more advanced, with more and more features, along with more potential for security problems. One major concern for security is location privacy. Smart phones now hold GPS capabilities, and these GPS functions can collect user location. Unbeknownst to most, location data is being collected on a continuous basis by phone providers. Apple iPhones would collect data about users location for WiFi spots, and users were shocked to find this out. Google has had a similar system which was also shocked users. This frightened consumers, as location privacy is a security problem.

Location data is a considerable security concern. Location data collected daily can tell you multitudes of data about a person. Throughout a week, location data can tell someone where you've spent the most time, as well as daily routines. This data can even help predict someones mobility as the article suggests that "mobility patterns have shown a 93 percent average predictability". This means are mobile devices can not only reveal are current location, but predictors to our future movements, which is dangerous idea in the wrong hands.

Some attempts to control this involve enforcing collection limitations. This means highly restricting the amount of data a company can collect from a user, so that correlations of location

cannot be made but companies can still collect research data. Limiting the accuracy of the location data collected is another method of this.

Consent is the biggest concern to users. Since users were unaware of this location data collected, this was the biggest cause of uproar from users. It isn't likely they would review a privacy policy that constantly changes, so users should have some form of consent if their location data is going to be used.

This helps me in my software development as my senior designs project's focus for my side of it is mobile application development of a GPS based treasure hunting; so location privacy of the users of the app is a concern to the project. Much length of my project and research have been spent on preventing this data from being shared. My app also follows the consent idea for asking the user for permission to use their location data in relation to the app's other function, so the app had a transparency in data collection.