People are info-egoists when it comes to their privacy

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People are much more concerned about sharing their own private information with third-party app developers than they are about revealing their friends' data, according to Penn State researchers.

However, as [social media](#) makes data increasingly interconnected,

preserving one's own privacy while ignoring the privacy rights of others may make everybody's data more vulnerable, said Jens Grossklags, assistant professor of information sciences and technology, Penn State.

"The problem is becoming known as interdependent privacy," said Grossklags. "The privacy of individual consumers does not only depend on their own decisions, but is also affected by the actions of others."

In the study, the researchers measured the economic value of personal information which individuals place on their own and other's information. The participants valued the data in their own social media profiles at $2.31 and their friends' data at 1.56 when friends' data was irrelevant to a third party app's function. When friends' data was necessary for app function, subjects valued their own data at $2.04 and their friends' data at just 98 cents.

Third-party developers create apps and games for social media platforms, but are independent of the main platform that the consumer is using. Typically, these third-party app developers require access to some personal data from the user's profile as well as data about their friends, said Yu Pu, a doctoral candidate in information sciences and technology.

"The developers may ask for innocuous data, such as name and birthdate, but they could also want access to very sensitive data, as well as your friends' sensitive data," said Pu.

The more sensitive data—for instance, photo files and videos—could hurt friends in a range of ways, according to the researchers. For example, a job applicant's unflattering photos and videos could be stored and later accessed by a potential employer.

Often, apps need certain types of data to function properly, but at other times, the apps do not need the information to perform effectively,

although the developers still request that extra information, according to the researchers, who released their findings today (Dec. 14) at the International Conference on Information Systems in Fort Worth, Texas.

Users also value their own information over all of their friends' information when it is bundled together.

"Considering that people who are on social networks have, on average, more than 300 friends, we investigated what value people place on each of their friends' privacy and, it turns out they place very little value on their friends' privacy," said Pu.

The researchers estimated that the average Facebook user, for example, with an average of more than 300 friends, would value the bundle of friends' data at less than a cent per friend when data collection is necessary. When data collection is unnecessary, people value the information for a single friend at less than three cents.

"You can imagine what answer you might get if you would ask your social media friends whether they would be okay with you sharing their information with an external developer that they know nothing about for .05 cents," said Grossklags.

As mobile computing becomes more app-centered, the researchers suggest that interdependent privacy will likely affect mobile commerce as well.

"Mobile commerce becomes more and more significant and so what we are researching here is also relevant for data sharing and app adoption on mobile systems," said Grossklags.

The study is not meant to suggest that all third-party developers will use the data they gather intentionally for negative reasons, according to the

researchers.

"We are not proposing that third-party developers are by default unethical, but there are questions of whether one engages in a fair deal here," said Grossklags.

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