

Preventing privacy leaks when online data can be gathered publicly

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A University of Missouri researcher is part of a team that received a \$1.2 million grant over 4 years from the National Science Foundation to study how to help prevent privacy leaks when there is a large amount of data that can be gathered publicly. Credit: University of Missouri

Protecting an individual's identity from cyber thieves can be a monumental task, especially when thieves can gather information about someone by just using public data sources.

That's why Rohit Chadha, associate professor of electrical engineering and [computer science](#) in the College of Engineering at the University of Missouri, is working with researchers at the University of Illinois-Chicago and the University of Illinois Urbana-Champaign on a \$1.2 million grant over 4 years from the National Science Foundation to study how to help prevent [privacy](#) leaks when there is a large amount of data that can be gathered publicly.

"Differential privacy is a technique invented about fifteen years ago that ensures when someone asks questions of online databases—[census data](#),

consumer trends or aggregated information such as salary range or average number of children of people living in a certain area—the privacy of a person's digital records remains intact," Chadha said. "You still want to be able to grant access to these inquires because the data is important for businesses, researchers and governments. On the other hand, you also want to be able to protect an individual's privacy."

By asking enough valid questions of different databases, cyber thieves can build enough of a person's profile that they can use that information in nefarious ways. Chadha said researchers have already begun testing different methods to thwart cyber [thieves](#) trying to attempt this.

"The [research community](#) has been aware of the possibility of these attacks for some time," Chadha said.

Chadha, along with Aravinda Sistla of University of Illinois-Chicago and Mahesh Viswanathan of University of Illinois Urbana-Champaign, and their teams will use the grant to verify the quality of the current methods being used and work to improve those methods as needed.

Provided by University of Missouri

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