Researchers aim to make privacy second nature for software developers

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The National Science Foundation (NSF) has awarded a New York University Tandon School of Engineering researcher funding for work that attempts to educate software developers on regulatory requirements related to user privacy. He hopes to thereby transform privacy protection from its current status as an afterthought in the development process to an integral element of software design.

The NSF announced that Sameer Patil, an assistant research professor in the Department of Computer Science and Engineering, is a recipient of a $175,000 Early-concept Grant for Exploratory Research, more widely known as an EAGER Award. EAGER awards support exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches.

Government attempts to regulate privacy matters related to technology using language that is inaccessible to most software professionals, Patil explains. In addition, developers generally have little formal training in the sociotechnical aspects of privacy. As a result, Patil says, privacy matters are often treated as an afterthought.

To address that problem—growing exponentially with Big Data—he is developing "privacy ideation cards," which will make U.S. data-protection laws and regulations understandable and actionable by software professionals and students.

Additionally, his team will promote the "Privacy by Design" approach,

which holds that that the future of privacy cannot be assured solely by compliance with legislation and regulatory frameworks; rather, privacy assurance must ideally become an organization's default mode of operation. The cards, which Patil foresees making freely available online, will facilitate the design, development, and deployment of systems that take into account relevant privacy laws and regulations at every step of the system building process.

Patil's collaborators on the project are Ewa Luger and Janice Tsai of Microsoft, Tom Rodden of the University of Nottingham, Jonathan Fox of Intel, and Hadar Ziv of the University of California, Irvine.

"We are very proud to be at the forefront of Big Data—including the privacy issues that arise from the sophisticated analysis of that data," NYU Engineering Dean Katepalli R. Sreenivasan said. "The faith that the NSF has expressed in Sameer Patil and the transformative potential of his research is well-deserved and gratifying."

Provided by New York University