ABSTRACT

Technology advances have brought numerous benefits to people and society, but also heightened risks to privacy. This project will investigate mechanisms and build tools to help people make privacy-aware decisions in different online contexts. The outcomes will help people to better understand their own privacy preferences and behavior, and enable them to better manage their privacy on the Internet. The project will create designs that can be integrated into mobile app markets and web browsers. The results will also inform Internet standards and governmental policies on Internet privacy. In addition, this project will have important educational and training benefits at the undergraduate and graduate levels, including privacy-related class projects and modules. These training opportunities will help students to become more aware of potential privacy issues in technologies and develop technical skills in building privacy-enhancing mechanisms.

This project will investigate two main ideas: individualized mental models of privacy, and a
universal privacy dashboard. People often have differing mental models of privacy, or preferences that are context-dependent. However, it has been shown that people’s actual decisions or behaviors often divert from their stated privacy preferences. Motivated by the theory of contiguity from learning sciences, this project will examine whether people will make privacy-preserving decisions when their individualized mental models and their decision choices are presented to them contiguously in time and space (e.g., on the same user interface). This project will also explore the universal privacy dashboard as a principled way to provide transparency regarding individual’s mental privacy models and behaviors in two example domains: online tracking and Android app permissions. This dashboard approach will enable people to monitor, reflect, and if technically feasible, directly change their privacy decisions.

For further information see the project web site at: http://salt.ischool.syr.edu/privacymirror/

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