

A Body of Knowledge for Usable Security and Privacy Education

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Few computing students are learning about Usable Security and Privacy, and we need more general use learning materials. We seek to improve Usable Security and Privacy education by investigating:

- How do we translate the research lessons in the field into educational topics?
- What are the knowledge units and learning objectives for this discipline?

Body of Knowledge

A body of knowledge is a set of concepts and activities that make up a domain.

- Initial topic brainstorming at SOUPS 2015 Workshop on Usable Security and Privacy Education
- Affinity diagramming to cluster related topics and subtopics
- Refining with feedback from the community

Primary Knowledge Units

<http://hci.uncc.edu/usable-security-privacy-bok/>

User foundations

User behaviors, aspects of human cognition, demographics impacting security and privacy

Privacy

Privacy definition/theories and their application to computing, users' privacy attitudes/measurement

Privacy notifications and controls

User concerns and problems with privacy notices, interfaces, and app permissions

Encryption

The usability and user perception of email/data encryption tools, including SSL

End-user access control

User strategies for controlling data access, and the usability of existing access control mechanisms

Authentication

User perceptions and behaviors, usability-security tradeoffs with various authentication mechanisms

Warnings

Usability of security warnings, risk communication, and design guidelines for improving warnings

Design principles

General design principles for usable security and privacy

Phishing and social engineering

Why people fall for phishing, user education on how to detect phishing attacks

End-user security knowledge and tools

The usability of tools for personal and computer security such as firewalls and anti-virus software

Tracking technologies

User perceptions and behaviors with web, location, and behavioral tracking

Social behavioral privacy

Privacy theories, user behaviors, and mechanisms for managing privacy on social sites

Administrators and expert tools

Usability and design guidelines for security tools for administrators and experts

Design process

Secure interaction design process, privacy sensitive design, and human in the loop framework

Security and privacy processes

Methods for security compliance, end-user security/privacy education and incentives

User studies of security and privacy

Measuring security knowledge, deception studies, ecological validity of security and privacy studies

Emerging technologies

Potential usable security and privacy issues, and user concerns with emerging technologies

Online learning modules

- Introduction to Usable Security and Privacy
- Passwords
- Authentication

Interested in meeting the PIs? Attach post-it note below!

