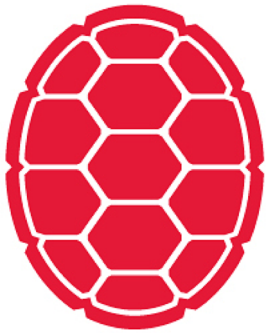
HUMAN-CENTERED SECURITY AND PRIVACY



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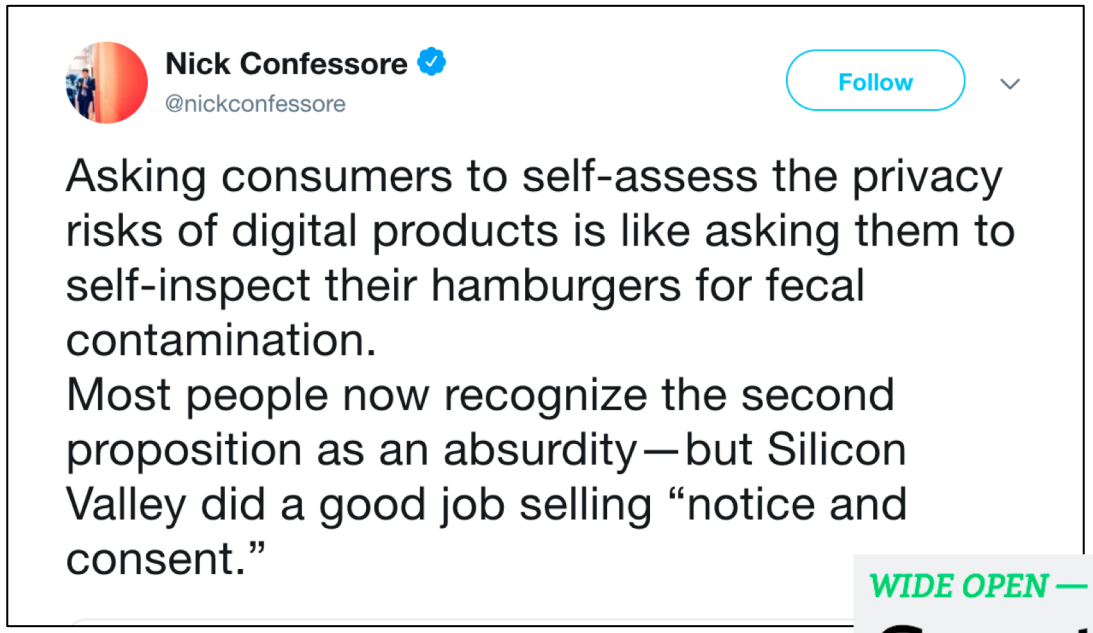
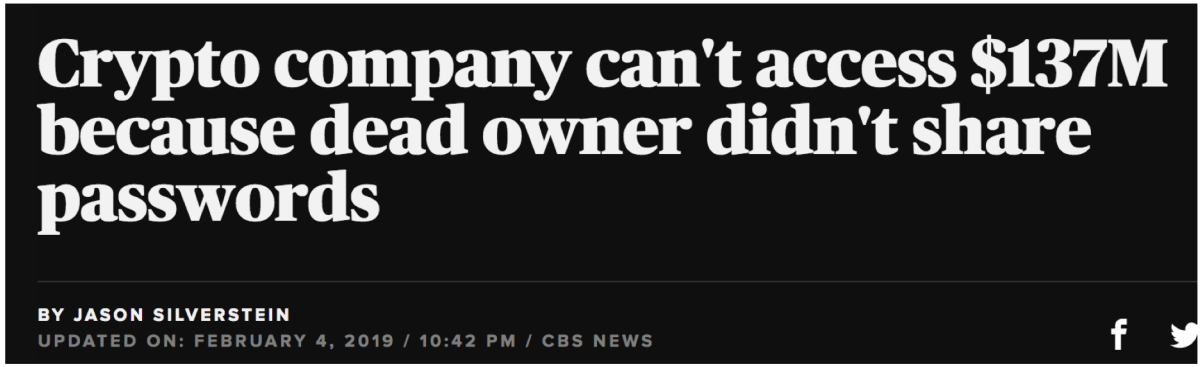
SP2 Security.Privacy.People

WHY HUMAN-CENTERED?





OVERARCHING QUESTIONS

Why and how do people* make security- and privacy-relevant decisions?

How can we improve these decisions?

* End users, software developers, sysadmins, vulnerability analysts ….

TYPICAL APPROACHES

Surveys and interviews

Observational studies

Experiments

Designing and testing interventions (tools, systems, interfaces)

TRACKING TRANSPARENCY

Building tools to make tracking and targeted advertising visible and comprehensible to end users.

Understanding what kinds of tracking are appropriate, creepy, expected, surprising.

CHI 2018, WWW 2019

MAKING SECURE DEVELOPMENT EASIER

How do API design, documentation, and even Stack Overflow contribute to (in)secure development?

How are tools and techniques designed to prevent vulnerabilities used in practice? How can we make them more useful?

S&P 2016, 2017
CCS 2016

EXAMINING THE SECURITY-ADVICE ECOSYSTEM

Where do end users get security advice?

How do they evaluate what to apply and what to ignore?

What advice is currently available?

Is the advice readable, useful, correct? Does this vary by source and topic?

S&P 2016, CCS 2016
CHI 2017, EC 2018

SUPPORTING VULNERABILITY ANALYSIS

How do reverse engineers and vulnerability analysts do their work? What makes them successful?

How can we build tools to support vulnerability discovery?

How does training and education contribute to success in vulnerability analysis?

S&P 2018

MENTAL MODELS OF END-TO-END ENCRYPTION

How do end users value privacy and convenience in secure communications?

How can we correct misunderstandings that lead users to security errors?

SOUPS 2016
EURO S&P 2018