Carnegie Mellon University

Master of Science in Information Technology



Privacy Seminar

Speaker: Claire Chen

Title:

Is a Trustmark and QR Code Enough? The Effect of IoT Security and Privacy Label Information Complexity on Consumer Comprehension and Behavior

Abstract:

The U.S. Government is developing a package label to help consumers access reliable security and privacy information about Internet of Things (IoT) devices when making purchase decisions. The label will include the U.S. Cyber Trust Mark, a QR code to scan for more details, and potentially additional information. To examine how label information complexity and educational interventions affect comprehension of security and privacy attributes and label QR code use, we conducted an online survey with 518 IoT purchasers. We examined participants' comprehension and preferences for three labels of varying complexities, with and without an educational intervention. Participants favored and correctly utilized the two highercomplexity labels, showing a special interest in the privacyrelevant content. Furthermore, while the educational intervention improved understanding of the QR code's purpose, it had a modest effect on QR scanning behavior. We highlight clear design and policy directions for creating and deploying IoT security and privacy labels.

Bio:

Claire Chen is a third-year computer science undergraduate at CMU with concentrations in Security & Privacy and Machine Learning. She has served as a Research Assistant at CyLab (CMU's Security and Privacy Institute) and a Teaching Assistant for Introduction to Computer Security (15-330/18-330). Previously, she interned at Splunk and Stryker on their Performance Engineering and AI Systems teams respectively. With a track record of securing first place at three CMU hackathons alongside her teams, Claire is passionate about tackling pressing technological challenges at scale and creating a positive social impac

WHEN: April 23rd 2024 12:30-1:50pm

WHERE: Hamburg Hall Room 1002

ZOOM LINK: https://cmu.zoom.us/ j/97389172852? pwd=Q2Q5MEE2b29TaS9VeDQ4V HVXckV2dz09