

Current Topics in Privacy Seminar

Yanzi Lin
CMU

What Adults Will (and Won't) Do to Prove Their Age: Empirical Evidence from a Deceptive Web Experiment

Abstract: As age verification laws proliferate across the United States and internationally, limited empirical evidence exists on how adults actually respond to these systems in practice. We conducted an IRB-approved, deceptive web experiment ($n = 1,635$) to examine how different age verification methods affect adults' decisions to access age-restricted content. Participants, recruited to evaluate R-rated movie clips, were randomly assigned to one of seven verification conditions: checkbox self-attestation, government-issued ID upload (with varying privacy reassurances), government-issued ID with liveness check, AI facial age estimation, or email age estimation. Completion rates varied substantially by method. Checkbox self-attestation achieved 99% completion, government-ID methods 18–27% regardless of reassurances, email 86%, and AI 51%. Follow-up surveys ($n = 881$) revealed low comfort even among participants who completed verification. Participants perceived government-ID and AI methods as significantly riskier, rated no method as particularly effective at preventing minors' access, and found government-ID methods significantly less convenient. Higher comfort and lower perceived risk were associated with higher completion. These findings have important implications for balancing child protection with adults' access rights. We offer recommendations for policymakers and platform operators implementing age verification systems. This was joint work with Cheng Zhang, Madelyne Xiao, Lorrie Faith Cranor, and Sarah Scheffler.

Bio: Yanzi Lin is a Societal Computing PhD student in the Software and Societal Systems Department at Carnegie Mellon University and a member of the CyLab Security and Privacy Institute. She studies usable security and privacy using mixed methods, focusing on digital identity systems such as age verification and digital identity wallets. Her research examines gaps between system guarantees and user behavior, with broader interests in tech policy and confidential computing in healthcare.