

It's not actually that horrible: Exploring Adoption of Two-Factor Authentication at a University

Presented by: Jessica Colnago

Abstract:

Despite the additional protection it affords, two-factor authentication (2FA) adoption reportedly remains low. To better understand 2FA adoption and its barriers, we observed the deployment of a 2FA system at Carnegie Mellon University (CMU). We explore user behaviors and opinions around adoption, surrounding a mandatory adoption deadline. Our results show that (a) 2FA adopters found it annoying, but fairly easy to use, and believed it made their accounts more secure; (b) experience with CMU Duo often led to positive perceptions, sometimes translating into 2FA adoption for other accounts; and (c) the differences between users required to adopt 2FA and those who adopted voluntarily are smaller than expected. We also explore the relationship between different usage patterns and perceived usability, and identify user misconceptions, insecure practices, and design issues. We conclude with recommendations for large-scale 2FA deployments to maximize adoption, focusing on implementation design, use of adoption mandates, and strategic messaging.