

1 Bibliographic Citation

Habiba Farzand, Karola Marky, and Mohamed Khamis. 2022. Shoulder Surfing through the Social Lens: A Longitudinal Investigation amp; Insights from an Exploratory Diary Study. In Proceedings of the 2022 European Symposium on Usable Security (EuroUSEC '22). Association for Computing Machinery, New York, NY, USA, 85–97. <https://doi.org/10.1145/3549015.3554211>

2 Link to the Paper

<https://doi.org/10.1145/3549015.3554211>

3 Abstract

Shoulder surfing is a prevailing threat when accessing information on personal devices like smartphones. Adequate mitigation requires studying shoulder surfing occurrences in people’s daily lives. In this paper, we confirm and extend previous research findings on shoulder surfing occurrences using a new method; a one-month diary study (N=23). Our results provide evidence of shoulder surfing in public and private environments. Content-based shoulder surfing happens more frequently than authentication-based shoulder surfing. Participants experienced shoulder surfing at least twice during the study period and considered the closeness of relationships with the shoulder surfers when deciding how to respond to shoulder surfing incidents. Participants preferred unobtrusive alerting mechanisms over mitigation mechanisms for protection against shoulder surfing. Our work advocates moving away from one-size-fits-all privacy solutions and supports the design of user-centred shoulder surfing mitigation methods that consider social aspects. We conclude with directions for future research to assist security researchers and practitioners.