

A Framework for Developing Information Security Awareness Measures

Mattia Mossano¹, Anne Hennig¹, Fabian Lukas Ballreich¹, Benjamin Maximillian Berens¹,
Filipo Sharevski², Angela Martina Sasse³, Melanie Volkamer¹

¹ Karlsruhe Institute of Technology, ² DePaul University, ³ Ruhr University Bochum

Motivation

- Security awareness measures offer multiple, sometimes conflicting recommendations
- Risk of security fatigue and users' disinterest
- Existing guidelines and frameworks lack key aspects, e.g., how the target population influences a measure

Proposed framework

- Merges previous works and authors' practical expertise
- Complements and extends existing standards, e.g., Cyber Kill Chain, NIST Cybersecurity Framework 2.0
- Seven steps process highlighting all relevant aspects
- Consideration of security assumptions to clarify what is covered, what is not, and the rationale behind it

Future work

- Development of awareness measures for distinct target populations
- Evaluation of the measures through user studies in both the private and the business context

