

# Usable Security and Privacy: Issues & Challenges

Position Paper of the Working  
Group „Usable Security & Privacy“  
of the German UPA



**Interactive systems and technology products must be equipped with security elements that are understandable and usable for all user groups, both in private and business environments. The working group „Usable Security & Privacy“ of the professional association of German usability and user experience professionals (German UPA e.V.) has investigated which current problem areas and challenges exist from the perspective of usability and UX professionals<sup>1</sup>. From the point of view of usability and UX professionals, greater awareness of usability as a success factor of security and privacy, a reliable evaluation of current security procedures in terms of their usability, easy-to-use decision-making and design aids, as well as a great need for application-specific research, are important.**

**Raising Awareness:** Security and privacy are assets worth protecting. Nevertheless, many companies and private users are not interested in these topics („I have nothing to hide“). Therefore, suitable event formats, as well as information mechanisms at the software level, must be found, with which broader sections of the population can be reached in order to bring the topic of usable security and privacy more to the fore as a success factor of protective measures.

**Reliable Evaluation of Common Security Procedures:** In order to determine the current state of the art, common methods for ensuring security and privacy must be evaluated with regard to their usability. For usability and UX professionals, this offers the opportunity to compare individual solutions or technologies and to evaluate self-developed solutions in comparison. Assessment templates and rating procedures can provide a suitable basis for this and should be an essential part of the agenda.

**Applicable Decision-Making and Design Aids:** Users in business and private environments need support in order to determine which requirements are appropriate, what minimum level of security and privacy is needed in each context and which protective measures should be taken in a particular situation. Guidelines, patterns and further information, which can be prepared in a suitable form, are able to provide suitable assistance.

---

<sup>1</sup> The study took place in the context of a workshop at the Mensch und Computer 2016, which was organized and conducted by the working group „Usable Security & Privacy“ of the German UPA. (UP-WS13: AK Usable Security & Privacy - Ziele, Themen, Ausblick on September 5, 2016, RWTH Aachen).

**Application-Specific Research Needs:** Usability and UX professionals need methods and tools that they can use to design and evaluate their solutions in terms of usable security and privacy. This results in three open strands of research:

First, there is a need for research on how common usability methods can be applied in the area of usable security and privacy or should be adapted to the specific context of security and privacy for maximum effectiveness.

Second, context-specific peculiarities of the usability of security and privacy must be further explored. The evaluation of the user-friendliness and security of a solution is not least influenced by its specific application context. The evaluation, therefore, includes usability- and security-specific design guidelines for the frontend as well as the question of an appropriate system architecture, with the objective of reducing the complexity of security interfaces and better embedding system-initiated security events in the primary task of the user.

Finally, in the age of the increasing digitization of all aspects of life, it must be ensured that private end users in particular, have better control options and can effectively enforce their protection goals (e.g. when setting the permissions of apps or when handling personal data on the internet). In this context, the question of possible limits to individual regulatory capacity must also be taken into account against the background of the growing number of distributed systems.

Since its foundation in 2015, the working group „Usable Security & Privacy“ of the German UPA offers all interested parties from practice and science a common forum for the exchange of ideas and interdisciplinary cooperation on the topic of user-friendly information security. The working group is concerned with approaches and concepts that align security and privacy-promoting procedures for software and interactive products more closely with the goals and tasks of users and thus ensure that the functioning of security elements is also comprehensible to non-experts.

Contact: [ak-usable-security-privacy@germanupa.de](mailto:ak-usable-security-privacy@germanupa.de)