Towards Usable Transparency via Individualisation

Patrick Murmann and Simone Fischer-Hübner

Karlstad University

Abstract Ex post transparency-enhancing tools (TETs) help users understand the actual and potential consequences of how their personal data have been processed by online data services. In addition to conveying transparency, TETs may also support data subjects in making informed follow-up decisions, such as whether and how to exercise their right of intervenability. Contextualised in the domain of fitness tracking and self-quantification as a niche context of mobile health (mhealth), our research seeks to aid users of online mhealth services in obtaining usable transparency a regards the processing of their personal data, and to enable them to make informed follow-up decisions with respect to intervening with the processing. Primarily employing methods from humancomputer interaction, our research pursues a user-centric approach that aims at reproducibly designing a usable TET.

The presentation will cover past and ongoing research on how individualisation can serve as a means to work towards the needs of users of online mhealth services who employ TETs on mobile devices. The presentation will touch upon our research related to segmenting users based on their privacy attitude and predisposition. This approach aims at providing prospective users of our TET with customized settings that reflect their individual needs and expectations. Complementarily, we investigate how a user's active usage of a TET can reflect back on the configuration of the tool by adapting its future behaviour to accommodate the user's needs more appropriately. Holistically speaking, individualisation serves as but one of the building blocks of a larger set of measures that address various gaps with respect to legal requirements and established design principles, which we have detected in the literature.

Keywords: General Data Protection Regulation (GDPR), Human-computer interaction (HCI), Individualisation, Mobile computing, Mobile health (mhealth), Privacy, Privacy notification, Transparency, Transparency-enhancing tool (TET), Usability