ENHANCING ONLINE PRIVACY AT THE USER LEVEL: THE ROLE OF INTERNET SKILLS AND POLICY IMPLICATIONS

Moritz Büchi
University of Zurich

Natascha Just
University of Zurich

Michael Latzer
University of Zurich

In contemporary information societies Internet users permanently balance the benefits of information disclosure and the risk of privacy incursions (Acquisti et al., 2015). Such societies are marked by several defining features: big (social) data as a new asset class, new methods of extracting economic and social value from big data, a high potential for growth in data-driven management in many sectors, and a growing platformization of Internet-based (social media) markets that depend on the revelation of personal data. In such an environment, online privacy has become a widely discussed and highly controversial example of rule-making and rule-breaking in the digital age.

On the one hand, the unprecedented availability of data on individuals' personal information, behavior, communication, and transactions has prompted much debate and research on the connected risks in terms of loss of privacy, privacy violations, and surveillance. On the other hand, information disclosure and sharing also enhance and personalize services, simplify transactions, and strengthen social ties and social capital. It is thus rarely an attractive option for individuals to entirely opt out of services that potentially threaten both their privacy and the control over their own personal data (Van Dijck, 2013). From a public-policy perspective, this calls for adequate policies and rules for privacy protection (Bennett & Parsons, 2013). Accordingly, the discussion of privacy governance on the Internet has gained prominence – propelled by widely discussed surveillance scandals (e.g., NSA) and sensational law suits (e.g., against Google and Facebook) – for example by the resolution of the United Nations General Assembly on the right to privacy in the digital age (A/RES/68/167).

Privacy behavior is also related to digital inclusion (Park, 2013). Internet uses and skills are associated with existing social inequalities (Robinson et al., 2015; Hargittai, 2008), thus disadvantaged Internet users are likely to be more vulnerable to privacy threats. In order to avoid transforming control over personal information into a luxury good, privacy should be governed as a basic necessity in the information society; not being able to put the Internet to effective and beneficial use may hinder digital inclusion. Therefore, the extent to which Internet users can and do manage their personal online information while still benefiting from the use of data-hungry Internet services moves to the center of public-policy attention. Self-help (self-protection) is one of several adequate measures against privacy risks (Latzer, Price, Saurwein, & Verhulst, 2007) and the potential for private solutions is high, ranging from not using problematic services to technical self-help. In contrast, individual self-regulation by companies and collective industry self-regulation lack the necessary incentives, because companies profit from personal data (Saurwein, Just, & Latzer, 2015). Accordingly, default privacy settings are generally low and have decreased over time (Acquisti et al., 2015), compelling users to become active. Nonetheless, although users are increasingly concerned about their privacy, research reveals the phenomenon of a "privacy paradox," meaning that despite knowledge and concern about risks, users readily share information and engage in behavior that could threaten their privacy (Norberg et al., 2007; Kokolakis, 2015). Hence it is in the public interest to better understand Internet users' active privacy protection, including enablers and barriers, as well as options for state interventions concerning privacy protection that might reduce barriers to self-help.

With Internet diffusion rates around 80% or more in many developed countries and with privacy risks becoming apparent not only for applications that entail explicit information disclosure, there is a gap in research on privacy-protecting behavior covering the whole range of Internet activities. In order to understand and govern privacy risks, well-founded knowledge is required on factors that influence the degree of individuals' self-help. The empirical part of this paper thus addresses the question of which factors explain self-protective privacy behavior online. The study used nationally representative survey data from Switzerland (n=1121), analyzed concrete actions to protect privacy, and examined the role of general Internet skills (see Van Deursen, Helsper, & Eynon, 2015). A latent variable structural equation model tested the effects of privacy breaches, privacy attitudes, and Internet skills on the level of privacy protection ($\chi^2(84)=159.53$ (p<.001), CFI=.980, RMSEA=.03, SRMR=.03). Three main findings were gained from the empirical analysis: First, perceived data abuse and concrete experiences of privacy violations ($\beta=.41$) are associated with higher levels of self-protection, suggesting a "learning the hard way" mechanism. Second, pro-privacy attitudes ($\beta=.18$) as evaluations of the sensitivity of personal information have a significant but relatively weak positive influence on privacy self-protection. Third, Internet skills ($\beta=.57$) have by far the strongest effect on behavior. It is thus general Internet skills that best explain the extent to which users actively protect their privacy online – merely caring about privacy is evidently not sufficient to provoke strong self-protective behavior.

These insights are particularly relevant for rule-making and research concerned with digital inclusion: Internet skills are an asset in market economies and are associated with a broad range of beneficial Internet uses, yet they are unequally distributed in the population based on existing stratification by social class and status. The finding that

skills rather than attitudes mainly influence privacy self-help behavior leads to the conclusion that policies aimed at empowering users may promise little success if concerned solely with raising awareness. This directs the attention to governance strategies that foster skill development and ensure that digital skills are developed, maintained and enhanced on a continuous basis.

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