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QUALITATIVE EVIDENCE ON CHILLING EFFECTS—HOW USERS' IMAGINARIES OF DATAVEILLANCE LEAD TO INHIBITED DIGITAL BEHAVIOR

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Theoretical Basis for Chilling Effects of Dataveillance

Our everyday life has become highly digitized: we read articles online, scroll through news feeds, or google health symptoms—and all these online actions leave digital data traces that are automatically collected, aggregated, and analyzed with the use of algorithmic systems. This dataveillance can be problematic as perceiving it can have a chilling effect on mundane and legitimate information and communication behaviors (Büchi et al., 2022; van Dijck, 2014). Such self-inhibition can manifest in avoiding searching for a certain topic online or refraining from posting something on social media for fear that these data traces could lead to potential harms in the future. These chilling effects of dataveillance are problematic in a democratic society as they deter individuals from informing themselves unrestrictedly and voicing their opinion freely, which are essential requirements for well-functioning democratic processes (Büchi et al., 2022; Penney, 2016; Véliz, 2020).

Limited Existing Empirical Research

While there is an established body of theoretical and empirical research on online privacy and how internet users aim at protecting it in light of surveillance discourses (see Viola & Laidler, 2022), research on dataveillance and, specifically, its effects has only recently emerged. Extant empirical research has confirmed that people are somewhat aware of dataveillance (e.g., Lupton, 2020) and that they limit their legitimate information and communication behavior in response to this perception (e.g., Marthews & Tucker, 2017; Penney, 2016; Stoycheff et al., 2019). However, the intricacies of these

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mechanisms and the extent to which a sense of dataveillance deters individuals from freely engaging in legitimate digital behaviors remain empirically understudied.

Aim

To fill this research gap, this study first addresses imaginaries (Bucher, 2017; Lupton, 2020) of dataveillance, namely, to which degree internet users have a sense of dataveillance, how they acquire it, and how they feel about dataveillance. Second, it investigates how a sense of dataveillance leads to chilling effects on digital behavior, namely, what own behaviors internet users limit due to perceived dataveillance and how they feel when (dis-)engaging in such digital behaviors.

Method

Empirically studying chilling effects is challenging because, among other things, they are conceptualized as long-term and expected effect sizes are small, dataveillance practices do not have high variance and therefore cannot be manipulated in experimental settings, and the phenomenon is difficult to convey to lay people without priming them in survey studies (Büchi et al., 2022). To address the aforementioned questions, we therefore apply an explorative approach to investigate internet users' perceptions, imaginaries, and reasonings regarding their digital behavior. We conduct qualitative semi-structured interviews with 15 individuals from diverse life stages and social environments (Brinkmann & Kvale, 2015; Lareau, 2021). The interviewees answer a recruitment questionnaire providing information on their background and basic internet use before being invited to take part in the study to maximize variety among participants. The interview topics include general online behaviors like information seeking, socializing, and commercial transactions, feelings towards and imaginaries of dataveillance, and diverse manifestations of chilling effects. The interviews are transcribed and coded continuously parallel to the interviewing process using the qualitative coding software MAXQDA in order to be able to adapt the topic guide to emerging themes. To acknowledge the explorative nature of this study, our coding approach remains open for emerging themes. Hence, while some codes are deducted from existing research, most are inductively generated from the interview data (Silverman, 2018). In our analysis we explore how people imagine dataveillance, we investigate how these imaginaries of dataveillance lead to mundane digital behavior being chilled, and we identify the types of digital behaviors that are chilled in response to this perceived dataveillance.

Results and Contribution

Our results contribute to our understanding of people's imaginaries of dataveillance, for instance by informing us about the imagined sources of dataveillance that can range from states to corporate actors monitoring individuals' activities. We further contribute qualitative evidence on the sources of dataveillance, which can include external shocks like news articles about data scandals or internal perceptions from concrete internet-use experiences like becoming aware of dataveillance by recognizing personalized advertisements. The interviews further reveal whether and how people react to a heightened sense of dataveillance with limiting their digital behavior. In addition to searching for information and expressing opinions, we identify further legitimate,

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mundane behaviors in other life domains like participating in online dating and buying things online that are affected by a sense of dataveillance and have so far been neglected in literature on chilling effects.
These results contribute to an empirically founded understanding of the nature of a sense of dataveillance and resulting chilling effects on digital behavior and thus advance research in this emerging field. Insights from the qualitative internet-user interviews contribute to rendering these chilling effects more tangible. They provide the basis for a representative survey and a mobile experience sampling study as part of a mixed-methods research design, that will investigate the prevalence of chilling effects in digitized societies on a population level.

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