

# Personal data and the age of information: the issue of privacy

[Law](#), [Security](#)



This is the age of information, and then privacy is the issue of our times. Activities that were once private or shared with the few now leave trails of data that expose our interests, traits, beliefs, and intentions. We communicate using e-mails, texts, and social media; find partners on dating sites; learn via online courses; seek responses to mundane and sensitive questions using search engines; read news and books in the cloud; navigate streets with geo tracking systems; and celebrate our newborns, and mourn our dead, on social media profiles. Through these and other activities, we reveal information both knowingly and unwittingly to one another, to commercial entities, and to our governments.

The monitoring of personal information is ubiquitous; its storage is so durable as to render one's past undeletable a modern digital skeleton in the closet. Accompanying the acceleration in data collection are steady advancements in the ability to aggregate, analyze, and draw sensitive inferences from individuals' data. Both firms and individuals can benefit from the sharing of once hidden data and from the application of increasingly sophisticated analytics to larger and more interconnected databases. So too can society as a whole for instance, when electronic medical records are combined to observe novel drug interactions.

On the other hand, the potential for personal data to be abused for economic and social discrimination, hidden influence and manipulation, coercion, or censorship is alarming. The erosion of privacy can threaten our autonomy, not merely as consumers but as citizens. Sharing more personal data does not necessarily always translate into more progress, efficiency, or equality.

Because of the seismic nature of these developments, there has been considerable debate about individuals' ability to navigate a rapidly evolving privacy landscape, and about what, if anything, should be done about privacy at a policy level. Some trust people's ability to make self-interested decisions about information disclosing and withholding. Those holding this view tend to see regulatory protection of privacy as interfering with the fundamentally benign trajectory of information technologies and the benefits such technologies may unlock. Others are concerned about the ability of individuals to manage privacy amid increasingly complex trade-offs.

Traditional tools for privacy decision-making such as choice and consent, according to this perspective, no longer provide adequate protection. Instead of individual responsibility, regulatory intervention may be needed to balance the interests of the subjects of data against the power of commercial entities and governments holding that data. To address this question, we review diverse streams of empirical privacy research from the social and behavioral sciences. We highlight factors that influence decisions to protect or surrender privacy and how, in turn, privacy protections or violations affect people's behavior. Information technologies have progressively encroached on every aspect of our personal and professional lives. Thus, the problem of control over personal data has become inextricably linked to problems of personal choice, autonomy, and socioeconomic power. Accordingly, this Review focuses on the concept of, and literature around, informational privacy (that is, privacy of personal data) but also touches on other conceptions of privacy, such as anonymity or seclusion. Such notions all

ultimately relate to the permeable yet pivotal boundaries between public and private.