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## Privacy Problems in the Online World

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**Abstract:** Modern technology's benefits have accelerated our migration to social networking and other online activities. However, the confluence of the online world and life offline is imperfect, immature, and incomplete. People's habits, customs, and relationships are going through profound changes that will have as-yet-unknown effects on them and society as a whole. Here, the author looks at how literature can help identify and characterize the human nature of privacy problems in the online world. Multidisciplinary approaches that align knowledge from social sciences and humanities with computer science are needed to tackle the problem of privacy in the digital world.

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**Full text:** From the Editors

Privacy Problems in the Online World

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Forget it! Forget what I wrote. Forget what I said. Forget what I did. Forget what I was! Forget me.

For better or for worse, forgetting it was possible before the Internet. In the digital world, however, there is no forgetting no past exists that cant be recovered, no history that cant be recounted, no news that cant be found. In the ofine world, moments come and go at the whim of chance or in the wake of routine, but are rarely recorded. In online life, any action a quick look at photos in an online newspaper, a simple comment on Twitter, an email sent to a colleague, a Google query, a message to a friend on Facebook or Google+, or a tip on Four-Square is captured permanently. Various entities collect and store detailed traces of online life on always-connected computers located worldwide.

Modern technologys benets have accelerated our migration to social networking and other online activities. However, the conuence of the online world and life ofine is imperfect, immature, and incomplete. Peoples habits, customs, and relationships are going through profound changes that will have as-yet-unknown effects on them and society as a whole. The online world leaves behind face-to-face contact, hand-shakes, eye contact, and so on rather, online communication will gradually evolve new codes for interaction and relationships. The role privacy will play in this new paradigm is evolving as well, as we grow accustomed to the differences between online and ofine lives.

Human Nature and Communication

Literature creates characters, plots, and narratives that can illuminate the unknowns that technology has created, offering clues for examining and understanding human nature in modern times.

One should not tell anyone anything or give information or pass on stories. So begins the reections of Jacques Deza, narrator and main character in Your Face Tomorrow, the multi-volume novel from Spanish author Javier Maras. In the book, Deza recounts a period in his life when he lived in England and worked for a secret government bureau of elite analysts. Readers can interpret this work in several ways. In these times of almost ubiquitous surveillance systems and online social networks that record everything, Dezas reections about fear, distrust, betrayal, and espionage are moving from ction to the technological reality of the 21st century and should put us on alert.

The online world greatly expands peoples opportunities for contact. Distance and time are no longer barriers. Friends, acquaintances, or even strangers need no longer live on the same street, in the same neighborhood, or

in the same city to be in touch. The online world intensifies peoples capacity to communicate in various ways. As Deza reacts,

What most denes and unites us: talking, telling, saying, commenting, gossiping, passing on information, criticizing, exchanging news, tittle-tattling, defaming, slandering and spreading rumors, describing and relating events, keeping up to date and putting others in the picture, and, of course, joking and lying. That is the wheel that moves the world Jacobo, more than anything else, that is the engine of life.

This is as much if not more true on the Web, where true statements, false statements, important statements, and insignificant statements are all stored indenitely.

Words without Borders

In digital space, walls, doors, and windows that can separate the private from the public are

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still under construction. Thus, an unknown number of eavesdroppers are always present on the Internet, ready to capture political conversation, a statement out of context, or even a declaration of love. In the online world, people, organizations, and governments hear not only whats public but also what should remain private. As the character Jacobo says,

People cannot help but go and tell what they hear, and they tell everything sooner or later, the interesting, the trivial, the private and the public, the intimate and the superuous, what should remain hidden and what will one day inevitably be broadcast, the sorrows and the joys, the resentments, the grievances and the attery, what lls us with pride and what shames us utterly, what appeared to be a secret and what begged to remain so, the normal and the unconfessable and the horric and the obvious, the substantial falling in love and the insignificant falling in love.

Regardless of potential privacy problems in online social networks, people continue to post all manner of personal information to the Web. In the digital world, individual privacy is largely an illusion.

In offline life, time flies. In digital life, words fly in fractions of a second. Take a single fact: a simple sentence about this fact, gossip with regard to it, peoples comments on it, or a belied description of it can travel the planet without intimidation from different languages, cultures, religions, national borders, or political systems. No barriers stop the words in the digital world, just as Deza conjectures:

Nothing surrenders itself so completely as the word. One pronounces words and immediately lets them go and give possession, or rather, usufruct to the person

who hears them (and then) transmit them limitlessly, acknowledging their source or making them theirs, depending on their mood, depending on how decent they are or whether or not they want to ruin or betray us, depending on the circumstances; not only that, they can elaborate on them, improve on them or mar them, distort them, slant them, quoting them all of context, change their tone, altering their emphasis

And of course, online, all these words are almost instantly and forever recorded, ready to be searched and recontextualized.

The Perils of Anonymity

How can I not know today your face tomorrow, the face that is there already or is being forged beneath the face you show me or beneath the mask you are wearing, and which you will only show me when I am least expecting it? In his work for the British secret service, Deza seeks to unravel the character of his suspects, often watching them secretly behind a false mirror or window in a room where suspects are being interrogated.

What we in the real world fear is that similar inquiries could occur on the Web, but requiring neither the skills nor the apparatus of intelligence services. Data and information about people today are available to anyone via search. Anyone can hide behind a computer screen or mobile device, obtaining and interpreting such data anonymously, anytime, and from anywhere that is, as Javier Maras notes, with the superiority of looking while unseen, or seeing everything without risking ones own eyes. We can link the information people give out on

Face-book, Twitter, FourSquare, Google+, and other sites to make connections and crossovers that profile anyone. Furthermore, Internet data can lead to several different profiles of someone lets say many faces oriented

to the interests and intentions of those seeking the data.

#### A Balancing Act

Privacy problems in the online world have different facets. In one of the first articles to articulate privacy details in 1890, Samuel Warren and Louis Brandeis emphasized privacy as the right to be let alone.<sup>1</sup> While describing privacy in his book *Privacy and Freedom*, Alan Westin says that each individual is continually engaged in a personal adjustment process in which he balances the desire for privacy with the desire for disclosure and communication.<sup>2</sup>

This act of striking a balance makes privacy interesting to study; tradeoffs are inherent to making privacy decisions. Westin has been conducting privacy studies in the US for a few decades, and has classified the US population into three types of people: fundamentalists (roughly 25 percent) are generally distrustful of organizations that ask for their personal data, and usually choose privacy controls over consumer-service benefits; pragmatists (65 percent) weigh the benefits of various consumer opportunities and services as well as public safety measures against intrusiveness and increases in regulatory power; and those unconcerned (10 percent) are more trustful of organizations that collect their personal information and are willing to give up privacy claims for consumer-service benefits.<sup>3</sup>

All these definitions and explanations show that privacy is hard to study and quantify. No absolute value exists for privacy; rather, its subjective to each individual, culture, and geography. This is evident from Robert C. Post's view on privacy as a value so complex, so entangled in competing and contradictory dimensions, so engorged with various and distinct meanings, that I sometimes despair whether it can be usefully addressed at all.<sup>4</sup>

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#### From the Editors

The technologies and services that we use online provide privacy protection through privacy-enhancing technologies. These will only partially solve the problem, but developing a holistic approach to the privacy problem will be difficult. Even with various technologies, people, processes, and government policies already in place, privacy breaches continue to compromise users personal information (see [www.privacyrights.org/](http://www.privacyrights.org/) data-breach). Moreover, through social media, users consciously or inadvertently share personal information that later becomes embarrassing for those involved.<sup>5</sup>

Facebook provides one example of the contradictions and trade-offs required in the online world. It regularly shares users personal information with advertising and Internet tracking companies (see <http://tinyurl.com/27fns1p>). Furthermore, the evolution in Facebook's privacy settings (one way to express and protect privacy preferences) clearly demonstrates

the difficulty in developing a solution for these complex issues.

These problems aren't limited to citizens and organizations; governments are also subject to exposure and observation (as the WikiLeaks example demonstrates). To address these issues at a government level, the US Federal Trade Commission recently started advocating for do not track mechanisms that developers could build into browser or other technologies so that users can opt out of online monitoring.

The more we live online, the more others will know about us. Technology has enabled this phenomenon and must thus address the privacy issues it presents. This gives computer scientists and social science researchers myriad new research problems to address. The computing science field should embrace this area of privacy research (including studying human nature in this context) and develop solutions that can have a lasting impact on information technology use. Talking, telling, saying, commenting, [and] gossiping will continue in the online world for the foreseeable future, but in a different form and at a different speed, making the privacy problem even more critical. A multidisciplinary approach that aligns

knowledge from social sciences and humanities with computer science can help us tackle the problem of privacy in the online world.

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