The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power. Shoshana Zuboff. New York: Public Affairs, 2019. viii, 691 pp. ISBN 978-1-61039-569-4

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In *The Age of Surveillance Capitalism*, Shoshana Zuboff argues that technology companies have monetized metadata, usurping individuals' expectations of privacy and compromising information integrity. Through ubiquitous and inter-connected search engines, social media, and data-enabled devices, companies can conduct pervasive surveillance of individuals' movements, decisions, and emotions, all in the interest of predicting and influencing consumer behaviour. Zuboff posits that this erosion of privacy threatens democracy.

Shoshana Zuboff is a professor emerita of the Harvard Business School whose previously published books, including *In the Age of the Smart Machine: The Future of Work and Power* (1988), explored the impact of connected devices on business and employment patterns. She notes that the questions she asked a few decades ago have now become urgent, as the speed of digital change leaves us little time for reaction. Questioning whether all change is positive, Zuboff acknowledges the benefits of the new technology but argues that even the big tech companies themselves cannot respond quickly enough to the negative phenomena their platforms have enabled: "We celebrate the networked world for the many ways in which it enriches our capabilities and prospects, but it has birthed whole new territories of anxiety, danger, and violence as the sense of a predictable future slips away" (p. 4).

Zuboff opens her newest book with a definition of the term *surveillance capitalism*, broken down into eight specific applications, ascending from "a new

economic order that claims human experience as a free raw material for hidden commercial practices of extraction, prediction, and sales" to "an expropriation of critical human rights that is best understood as a coup from above: an overthrow of the people's sovereignty" (p. vii). She then outlines the historical context of the issue, the entrenchment of the practices of surveillance capitalism from around 2015, and finally, her philosophical objections to the underpinnings of the phenomenon. Throughout, she suggests that individuals have agency, and that it is not too late to redress policies, address concerns, and reclaim the hopeful narratives that had originally been advanced by the giants of social networking and information sharing.

Many of the sub-themes Zuboff explores are relevant to archives and records management. She touches on data mining, data protection, artificial intelligence, blockchain, cloud storage, information integrity, access, and privacy. Most importantly, Zuboff challenges us to collectively consider an appropriate response to current and future challenges connected to technology and the gathering and sharing of information. In questioning the full consent that users give corporations to share their information in return for free email services and perks, Zuboff is not alone. As Canadian experts like the University of Guelph's Rozita Dara have argued, the pace of change is so rapid that neither individuals nor government entities have had time to reflect and develop ethical guidelines and responses or to formulate coherent policies.

Some readers may be tempted to argue that sharing information has always been risky, but the digital environment has changed the risks in significant ways. Archivists are able to relate to the ethical challenges these changes represent. Traditionally, the active archives of private companies have been off limits to researchers, with the access conditions of dormant records established only after the company has gone out of business and any sensitive, personal information has been destroyed. A lot of this has had to do with trust. In a world where it is possible for a virtual assistant to record your search requests to a digital archive, to be used later for advertising, who decides what information is retained? When the goal of data sharing is to predict your next purchase, can you trust that a technology company will take responsibility for protecting the data they collect, and share it ethically? What does ethical sharing mean in this context? Even if the information seems innocuous, how can you be sure it will be interpreted in context, and how will it be used going forward? Libraries also offer services free of charge, but citizens would be outraged to learn that their personal reading lists

had been shared with lobby groups or profit-driven businesses. Some readers may find that Zuboff overstates her case, but as many experts have argued in recent years, privacy legislation was not designed for the unprecedented volume and prevalence of Internet-enabled information sharing. Those who would call for stronger privacy laws will find points in favour of this argument in this book.

Certainly, these concerns must be weighed against the positive effects of information-sharing technology, which has enabled GPS-orientation applications for people who are vision-impaired and linked open data for libraries and cultural institutions, community building, and social enterprise. In a connected world, libraries and archives are increasingly engaged in using technological tools like online catalogues and social media to make their collections publicly accessible and relevant.

The global pandemic brings these issues into sharper relief. If 2020's Internet-enabled connectivity has facilitated e-learning, diversity training, and video-chat dinners for those of us quarantining in comfort, what can we say about our efforts to connect remote communities to these opportunities? With libraries and archives closed due to public health measures, could technology do more to bridge the gap and ensure that public debate is informed by access to primary sources? How can we use technology to protect us from the virus, as well as from the scourges of disinformation and cyber-crime, while respecting the importance of privacy in liberal democracies? If Zuboff fails to convince you that surveillance capitalism "is the puppet master that imposes its will through the medium of the ubiquitous digital apparatus" (p. 376) or "a form of tyranny that feeds on people but is not of the people" (p. 513), you will likely still agree that regulations that protect privacy are important. Far from being lulled by the charms of the Internet, the public is concerned about privacy, as evidenced by the interest in and frequency of headlines related to questionable information-sharing practices and leaks.

Zuboff's book makes for sober reading. Some of the capabilities that the new technologies offer are surreal and, as the author notes, based on data that is coaxed from users almost without their knowledge. While it raises awareness of privacy concerns, Zuboff's book is short on recommendations. The author urges people to resist the lure of the screen – to "unplug" to regain a sense of mental balance – and she underscores the continuing relevance of artists and writers to society. Ultimately, she leaves the decision of how best to respond to the readers.

Zuboff's book does not mention the word *archives* and is not written for archi-

vists. It does, however, focus on topics that are of deep concern to archivists and records managers, in their work and in their everyday lives, and to the democratic values public archives uphold. Her critique of informational monopoly and technological utopianism brings to mind James C. Scott's analysis of the hubris of high modernists (*Seeing Like a State*, 1999), with the key difference that Zuboff is discussing private companies, not governments. Information professionals have a vested interest in engaging in these debates and would be the ideal candidates to work with legislators, data scientists, and engineers to develop more ethically driven, citizen-focused privacy and information policies. The task is daunting, but the stakes are high. As D. Richard Valpy pointed out in his call for a comprehensive recordkeeping act, "As archivists, we inhabit medieval institutions while we attempt to deal with god-like technology."[1] And as Alyssa Hamer recently argued, archivists are increasingly engaged in negotiating "the ethical dimensions" of their work, "amplified when records are made accessible in the online environment."[2] Zuboff calls upon readers to summon the courage to engage with the way information is being stored, shared, and monetized. Finding a balance between innovative information sharing and the protection of privacy in the interest of democracy is what archivists are all about.

1   D. Richard Valpy, "For the Purpose of Accountability: The Need for a Comprehensive Recordkeeping Act," *Archivaria* 88 (Fall 2019): 229.

2   Alyssa Hamer, "Ethics of Archival Practice: New Considerations in the Digital Age," *Archivaria* 85 (Spring 2018): 159.