

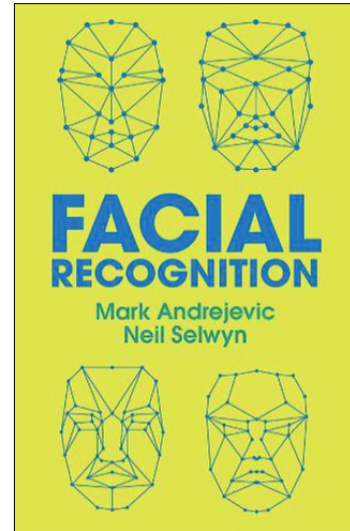
Mark Andrejevic and Neil Selwyn, **Facial Recognition**, Cambridge, UK: Polity, 2022, 224 pp., \$19.95 (paperback).

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Facial Recognition by Mark Andrejevic and Neil Selwyn provides an engaging introduction to the many types, uses, and issues of facial recognition technology (FRT) in society. By drawing on interviews and textual analyses, the book promotes a compelling argument for a wide readership, academic and beyond, to care about FRT developments and the social injustices embedded in their design. The book suggests several paths forward to help readers conclude for themselves: Do we really want to live in a world where our face is our ID, and where do we go from here given the current trajectory of FRT deployment?

Chapter 1 begins with a history of FRT, locating its start in 1960's Palo Alto, California, United States. There, a team of researchers including Wilson Bledsoe undertook a string of projects through Panoramic Research, Inc. While the majority of their work was classified under U.S. intelligence agencies, the team used an approach to automated pattern recognition that divided images into grids of cells and assigned values to each pixel of either 1 for full or 0 for empty, which then allowed for the computing of scores. Subsequently, pattern recognition became a probabilistic exercise of successfully matching the scores of different images to one another, and, as the book strongly underscores, FRT fundamentally remains so today. This chapter lays the foundation for several key issues that were created with the inception of FRT and continue to plague the technology: the problematic framing of FRT as a socially neutral, computational exercise and the racial and gendered lack of diversity of the "Mr. Average" images used to train FRT machines.

Chapter 2 expands on the computational logic behind FRT. It highlights that FRT is not one technology but an "umbrella term" (Stevens & Keyes, 2021) that covers a range of activities and interests. Nonetheless, the different types of FRT that exist largely fall within three categories: *verification*, the matching task of confirming a person's identity (1:1); *identification*, the discovery task of finding out who someone is (1:n); or *inference*, the presumptive work of making predictions about someone, like deducing their emotional state. The latter is particularly problematic, as it marks a return to physiognomy, a practice entwined in a deep history of racial prejudice that has been largely scientifically discredited. This chapter also provides some theoretical scaffolding around FRT's social surveillance work by calling on Foucault (1975/2007) and a range of media theorists like Gray (2003) to update the concept of the panopticon for today's technological era. Whereas the panopticon, a tool of surveillance and governance, operates on one adjusting their behavior based on suspicion of being watched, FRT works best when it becomes an environmental technology, an unnoticed part of the milieu that allows one to forget they are being watched and to become uninhibited in their behavior.



Chapter 3 introduces the reader to contemporary FRT issues and developments. Like many other technologies, FRT was born out of military support, which has led to the U.S. military becoming one of its key consumers. However, present-day developments like FRT use in sports and entertainment venues or homes are largely driven by big tech companies, smaller specialty companies, angel investors, and universities. The connection to big tech is a natural progression from the social media era, where the face became a central part of one's data. The authors note that device unlocking is one of the most ubiquitous uses of FRT today and give examples of selfie culture as aiding in the rapid accumulation of natural datasets of photographs used, often covertly, to train FRT algorithms. This chapter also mentions the light and inconsistent regulation efforts around FRT.

In an attempt to provide an original and balanced introduction to FRT, chapter 4 probes its prosocial uses. For instance, the authors note that, given that over 1 billion people in the world lack identification means, FRT can be seen as a welcome tool for care and protection by humanitarian, health, and crisis response agencies. Still, Andrejevic and Selwyn are quick to point out the function creep that may occur in even the best-case scenarios of FRT use. While FRT is employed in spaces like airports and casinos, where people already expect a high degree of monitoring, this should not be a *carte blanche* for the uncritical expansion of surveillance practices.

Chapter 5 pointedly argues that FRT is inherently harmful and oppressive, and a natural extension of "large-scale, late capitalist societies . . . characterized by a predominance of mediated forms of social organization and vastly asymmetrical distributions of wealth" (pp. 127–128). It is here that the book most systematically turns to how people of color and vulnerable populations like precarious Uber drivers are disproportionately impacted by the use of FRT. The authors debunk the popular logic that problems arising from misrecognition and algorithmic discrimination may be fixed through even more extensive profiling. Furthermore, they note that the narrow, binary identification and labeling processes that are central to the operations of FRT go against the current ethos of acknowledging the possibility for more fluid identities.

While Andrejevic and Selwyn state that we are "a long way off living in a facial recognition society" (p. 139), chapter 6 entertains several different futures of FRT use and asks readers whether conveniences like skipping long waiting lines in shops through quick FRT identification are worth the prospect of living under total surveillance. The authors worry that the "tyranny of convenience" (p. 156) from FRT's ability to keep up with large amounts of data accumulation and processing for real-time data management might itself prove to be a factor in maintaining and augmenting the use of FRT in society. Thus, we should be concerned both if FRT works as promised and if it does not.

Chapter 7 critically summarizes the key points throughout the book and homes in on a concept that will likely already be familiar to communication and media scholars: there is no such thing as a neutral technology. While one's experience of FRT as efficiency or enemy differs along ideological and power lines, Andrejevic and Selwyn make their case clear that current uses of FRT lead us down a slippery slope into the grips of an ultimately oppressive technology designed for control. While it is tricky to discern what might constitute legitimate and good social uses of FRT, the authors argue that the harms of the technology, specifically for minority populations, are clear-cut.

The epilogue, subtitled "So Where Now?", offers a useful conclusion to the book by suggesting some next steps for readers: the path of least resistance, strong and open scrutiny, or complete prohibition. Specifically, Andrejevic and Selwyn argue that FRT should be "prevented from making claims to identify race and gender" (p. 188), the algorithms on which FRT is built should be open to scrutiny, and FRT's business model should not follow that of the Internet in collecting large swaths of data for speculative future uses.

While geared toward a Western readership, the book tries to provide global examples of FRT use, and indeed, some of the most striking stories it relays come from beyond the Western world. Given that a "1 percent error rate in digital services used by all Indians translates into challenges faced by approximately 13 million people" (Singh, 2019, p. 501), that the Japanese company NEC is a longstanding market leader in FRT, and that China's Shenzhen city is the epicenter of the FRT manufacturing supply chain, one might wonder what an international history of FRT might look like. What stories might a more global, sociotechnical vantage point and theoretical framing yield about the future of FRT? Or, what future paths of action could critical race theory propose to some of the pressing issues identified throughout the book?

Facial Recognition is one product from a broader and ongoing grant project that surveys FRT use. It builds on previous work by Gates (2011) by providing some timely updates and a specific focus on the socioeconomic injustices created and exacerbated by FRT. Nonetheless, *Facial Recognition* remains strategically broad, which allows readers from varied backgrounds to enter the conversation and draw connections to other, long-standing cultural practices and technologies like artificial intelligence. "If there was a facelessness to the early internet that provided a sense of anonymity in a world primarily documented in text" (p. 8), the advent of social media platforms and now increasing FRT promises those days to be long gone. Yet, while FRT may be on our immediate horizon, the authors convincingly argue that it should not be a part of our inevitable future.

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