Reflections on *The Panoptic Sort*

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The Panoptic Sort (Gandy, 1993, 2021) was one of the first books that I read as an undergraduate studying computer science at the University of Toronto in the mid-1990s. It was assigned in a class called "Computers and Society" that we were encouraged, but not required, to take amid our various "technical" courses. It stands out as one of the most influential readings of my undergraduate studies, but I will confess that my stage of life and disciplinary investments made it hard for me to see it as I do 25 years later.

Then, I was focused on learning how to be a good *computer scientist*, as I understood the term. I wanted "how-tos" from "humanities people" like Gandy, who I saw as curbs on the system-building enthusiasms fueling my other courses. I read *The Panoptic Sort* to get answers to questions like: How can I ethically get people to give me their data? How can my user interfaces efficiently get people's consent to terms of service? What is Ontario's privacy commissioner, Ann Cavoukian, going to expect of computer scientists like me if her "privacy by design" proposals become regulation? I wanted help making my tools comply with an image of society that I only vaguely understood, but that I knew was somehow better than what I and my computer science colleagues could come up with on our own. I saw Gandy's image of society in service of computer science, not the other way around.

I recall the book teaching me about the panopticon (hearing about it first from Gandy, not Bentham or Foucault), how people's understandings of technology could be studied (beyond the focus groups and user studies common in computer science), and how legal regulations were like the code that I was learning to write (before Lessig said something similar). But I am embarrassed to say that Gandy's more thoughtful and sophisticated accounts of sociotechnical power, political economy, and capitalism largely passed me by. I was a White guy in my 20s, taking an elective class, interning in Nortel Networks' advanced design group, dreaming of a career in the burgeoning, data-filled field of ubiquitous computing. Marc Weiser's (1991) *Scientific American* article, "The Computer for the 21st Century," was the other text that I remember clearly from that class. It was the exciting invitation for me to join a "vision of a technology future" (Dourish & Bell, 2011, p. 39) that the technology companies I wanted to work for made seem inevitable, vital, uncontroversial, and somehow both magical and obvious. *The Panoptic Sort*, though, seemed to say, "Wait, stop, there's a lot that you're not understanding as you make this future." Weiser (1991) showed us how to make the future, and Gandy cautioned us not to do it. One was the accelerator, the other was the brake.

I write this not just to share my embarrassingly simplistic understandings of digital technology and social structure, but to suggest that many self-identifying technologists continue to see themselves as the accelerators, makers, and risk-takers, with humanists like Gandy cast as brakes, critics, and killjoys. Lost in my undergraduate binaries—innovation versus regulation, imagination versus worry, excitement versus nuance—was the appreciation that humanists and critics were also building. This is an almost obvious point to make, but upon reading the second edition of *The Panoptic Sort* (Gandy, 2021), I am struck not only by how Gandy brilliantly dismantles the technocratic assumptions of surveillance-based societies, but also by how he *builds* an

image of what societies could be if sophisticated humanistic conversations drove sociotechnical arrangements of power. While recently reading about the politics of scaling and Latour's (1987) claim that "technologies effectively never leave the lab, but rather that society is gradually transformed to resemble the conditions of the lab" (Pfotenhauer, Laurent, Papageorgiou, & Stilgoe, 2021, p. 5), my mind immediately returned to *The Panoptic Sort*, and how much it has to teach self-identifying data scientists and tool makers about their technologies, "labs," and sociotechnical power.

It is impossible to do justice to the book's conceptual richness in so few words (its sustained engagements with such a broad sweep of intellectual traditions continue to be impressive and rare), but I want to briefly offer three provocations and contributions that stood out in my reading of the original and new editions—ideas that *The Panoptic Sort* introduced me to 25 years ago and that continue to provoke and intrigue me.

The first is the idea that privacy is not an individual right but a requirement and achievement of collective self-governance. The struggle for self-governance through privacy plays out in largely invisible, poorly understood, privately controlled infrastructures with the power to classify, categorize, link, and operationalize a dizzying array of personal and collective actions. Though today's technological conditions are different—datasets are larger, algorithms are more powerful, "consumer" technologies are inescapable—Gandy's account of individuals' inability to avoid techno-industrial powers to watch, sort, and influence still resonates. Privacy continues to be not a matter of personal choice or agency but a collective accomplishment that increasingly suffers a double-bind Gandy warned us about: The very places and infrastructures where people might organize to achieve collective outcomes like privacy are the very systems whose business models and ideologies *require* watching, connecting, sorting, and controlling people. From social media algorithms fueled by vitriol to Alexa devices that listen to your home to gatekeeping facial recognition systems, people seem to be running out of places free of corporate surveillance and control, where they might resist corporate surveillance and control.

This links to Gandy's second idea: Self-governing collectives are increasingly made not of people with "natural" affinities or identifiable relationships but of calculated, data-driven connections that are difficult to see, re-create, and understand. You are in community with data and algorithms that change in ways you cannot know or appreciate. You never step into the same Google twice, and Facebook cannot tell you exactly why your feed looks like it does. Because the collectives that panoptic sorts make are not human or sometimes even legible (e.g., Gandy showed data to be a character in surveillance stories in a way that presaged contemporary views of algorithms as actors) we lack a language for accountability, responsibility, justice, and collective self-governance that we urgently need. Today this plays out in the struggle to audit algorithms, make them transparent, and hold them accountable. Thinking back to my undergraduate desire for someone to just tell me what I should do as a computer scientist, it seems like we are still talking about tools and effects, still not fully hearing Gandy's warning that surveillance technologies, data, and algorithms *are* "society." They are not instruments to be tweaked or calibrated, they increasingly *are* us in ways that are deeply uncomfortable to acknowledge precisely because they challenge myths of individual agency, choice, and autonomy.

Finally, my rereading of Gandy shows me just how wrong I was to see Weiser (1991) as the accelerator and Gandy as the brake. Gandy articulates an affirmative image of what democratic societies can and should be that is far more than a reaction to technological innovation. For example, rather than trying to

"de-bias" algorithms by auditing their training data, Gandy (2021) focuses on the "biases that are inherent in the societal processes that generate the data in the first place" (p. 275). He is not asking for better data, he is demanding better societies. This persistent investment in shaping the social and cultural forces that privilege some visions of technological futures over others is where Gandy places his hope; it is how he builds. He sees collective action, public opinion, regulatory reform, and social justice movements not as fragmented and reactionary sites of refusal, but as places where people can imagine, incubate, deploy, and refine affirmative images of democratic society. Gandy not only convenes resistance around the concept of the panoptic sort, he goes one step further to *use* the idea of panoptic sort as a framework to imagine what societies *could* and *should* be. When *The Panoptic Sort* is taught to today's budding computer scientists, I hope it shows them how ideas—not just code—are powerful materials to build with.

References

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