Book Review

Organization

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The Age of Surveillance Capitalism. The Fight for a Human Future at the New Frontier of Power. Shoshana Zuboff. New York: Public Affairs, 2019, 704 pp, £20.99. ISBN 978-1-60039-4 (hbk); ISBN 978-1-61039-570-0 (ebk).

In her landmark-book *Work in the Age of the Smart Machine* (1988), Shoshana Zuboff studied how modern information technology shapes the world of work and organization, recognizing the panoptic potential of this technology, which goes way beyond Bentham's wildest dreams. In the three decades since, we have seen the invention of the Internet, its capture as a field of business, and an exponential growth of the possibilities of collecting, storing, and processing data. 'Big Data' promises nothing less than a 'revolution' that fundamentally transforms 'the way we live, work and think' (Mayer-Schönberger and Cukier, 2013). Critics are concerned with the dangers presented by the multiple and 'fluid' forms of surveillance accompanying the 'datafication of everything' and shaping contemporary 'surveillance culture(s)' (Lyon, 2018).

Zuboff's new book appears as a disruptive event of truth-telling, challenging many of the taken-for-granted views on organizing the digital. It is about the 'darkening of the digital dream' (p. 7) and its subsumption to the 'voracious' logic of capitalism. It goes beyond the bounded organization to explore the organizing principles and the 'laws of motion' that drive social action and shape our experience. The monster that we only see vaguely and cannot describe accurately is given a name: 'surveillance capitalism' (SC). For Zuboff, this is a definitively malicious mutation of capitalism, characterized by a new logic of accumulation. Human experience is transformed into 'behavioral data', which is extracted, analysed, measured, assessed, and exploited. Behavioural data are the raw material for 'predictive products' which anticipate what we think, feel, do, or desire. They are produced by 'machine intelligence' and capitalized on 'behavioral futures markets' (p. 8).

The book comprises 18 chapters and almost 700 pages (including endnotes). Part I provides an analysis of the historical conditions of possibility that allowed SC to flourish. It describes the invention of SC in the 'neoliberal habitat' that developed from the beginning of the 1980s around Silicon Valley. Special attention is given to the first step of nurturing and elaborating SC with Google as the pioneer, trailblazer, and model. Part II describes SC's advance beyond the digital sphere. In this invasive process, (technical) datamining increasingly becomes 'reality mining', a process in which the depths of human experience are rendered visible and subjected to programmes of behaviour modification. Part III, finally, examines the rise of 'instrumentarianism', a new form of power that 'knows and shapes human behavior toward other's ends' (p. 8).

Google is for SC what the Ford Motor Company was for Industrial Capitalism. Ford's mass production allowed for economies of scale. Capital depended on the force of labour and the purchasing power of the masses. This at least guaranteed a sort of precarious equilibrium. In SC this constellation is fundamentally altered. Google revolutionized extraction rather than production. It does not

primarily rely on people as workforce or as customers, but as raw-material for the production of 'prediction products'. Google's patent 'Generating User Information for use in Targeted Advertising' (2003) is emblematic for turning the systematic observation and registration of what a particular individual at a specific point of time thinks, feels, prefers, or desires, into a programme.

Two economic imperatives are the driving forces. The (secret) 'imperative of extraction', generating a 'behavioral surplus' and the 'prediction imperative', which demands generating highly reliable predictions in order to avoid wastage (e.g. in personalized advertising). This in turn requires tapping masses of data from a huge variety of sources. The prediction imperative not only implies that surveillance becomes a normal service, but also that the modification, or even production, of behaviour with reliable effects becomes the goal.

SC relies on the 'dispossession of human experience'. For this – thoroughly violent – process, Zuboff has invented the concept of 'rendition' which comprises the 'concrete operational practices through which dispossession is accomplished, as human experience is claimed as raw material for datafication and all that follows, from manufacturing to sales' (p. 233–234). The term is complex and evokes multiple layers of meaning. It refers to the process in which something is formed out of something else (like rendering oil from fat) but also the way something gives itself over to this process (it sur-renders). Reading Zuboff's presentation of SC, it is hard to avoid associations to the 'extraordinary renditions' of US intelligence agencies in which terrorism suspects in foreign countries are captured and forcefully removed to dark places to be mauled with 'advanced interrogation methods'.

Zuboff uses the term for describing the 'machine invasion of human depth' (p. 256). By this, she means the 'rendition' of the body into an object to be tracked, measured, and indexed (e.g. by sensor technologies, facial recognition, wearables, geotags, fitness-apps, etc.), the 'rendition of the self' (e.g. by algorithmic deciphering of personality for the purpose of 'customer profiling' or 'micro targeting' for political or commercial purposes), or the 'rendition from the depths' that works under the banner of 'personalization' in advertising.

Multiple methods, ranging from analytics of emotion and dispositions, to 'affective computing' and telematics, serve to produce behavioural data and to influence and modify behaviour. While these 'renditions' are often euphemistically presented as new attempts to understand the human condition and society, Zuboff makes clear that these operations are 'typically unauthorized, unilateral, gluttonous, secret, and brazen' (p. 241).

As digital technologies invade human life ever deeper, exposing intimate details to the interested gaze of organizations, institutions and experts, they also afford the systematic modification of behaviour. One of the paradigmatic forms is 'People Analytics', pioneered and promoted by experts from the Human Dynamics Lab at the MIT as the key to a new 'social physics'. Zuboff presents this as a kind of reincarnation of the infamous programmes of behavioural modification associated with Frederik B. Skinner. Sensors and 'batches' not only produce masses of data and new forms of predictive transparency, they also embody what Zuboff calls 'actuation capability' (p. 293): the capacity to modify the real world in real time. Skinnerian programmes of behaviour modification are translated into algorithms that shape the world according to their image. Zuboff examines several of these approaches to (digital) behaviour modification in detail. Besides 'conditioning', or 'behavioral engineering', which works by 'reinforcing' desired behaviours, 'herding' subtly steers crowds by manipulating key elements of a person's context, and 'tuning' channels attention and behaviour using (digital) 'nudges'.

'Instrumentarianism' is the name for a new form of power, emerging from the interplay of these various procedures and designed for the prediction, modification, and monetization of behaviour. It combines the neoliberal world view with the observational perspective of radical behaviourism. It uses behaviour modification, instead of violence, and does not promise salvation and dispenses

with indoctrination and conversion. It is utterly indifferent to human motivations and interested only in frictionless – and profitable – functioning. Its laws are not derived from any specific ideology, but from the ‘science of human behaviour’. The priests of this power exercise ‘applied utopistics’ (p. 404), and dream of a world in which the single parts interact smoothly to form a harmonious and efficient whole. The place of the (totalitarian) ‘Big Brother’ (who ultimately demanded the love of the subjects) is taken by ‘Big Other’, the apparatus made up of techniques, including the computational infrastructure, that transform human beings into an object to be observed from a distance and understood as a bundle of behavioural traits to be optimized.

While SC’s high priests conduct their experiments in the laboratories of the MIT and elsewhere, and declare their truths in the journals of behavioural economy, we find the epitome of instrumentarianism embodied in the Chinese Social Credit System. Zuboff discusses it as an ‘automated behavioral modification machine’ (p. 393) which should not be confused with an Orwellian Big Brother Dystopia. For her it is ‘better understood as the apotheosis of instrumentarian power fed by public and private data sources and controlled by an authoritarian state’ (p. 389).

SC is not only a mutation of capitalism, but it is also an ethical-political project. For Zuboff, the very existence of SC represents a violation of human dignity. SC reduces humans to objects, which are measured and investigated, analytically dissected, and reassembled; people are treated like guinea pigs that are manipulated and ‘nudged’, lured and ‘gamified’ for the purpose of other’s profit. While ‘personalization’ is celebrated by direct-marketers as a means for optimizing ‘user experience’ or by experts of profiling as means of increased marksmanship in ‘targeting’ political or commercial objects, for Zuboff it ‘defiles, ignores, overrides, and displaces everything about you and me that is personal’ (p. 513).

The fact that ideas of behavioural modification which once caused critical spirits to mount the barricades, nowadays find enthusiastic support can certainly be interpreted with Zuboff as ‘evidence of our psychic numbing’ (p. 20). However, this also points to the emergence of a new truth regime, systematically circumventing human reflexivity and blocking the formation of ethical subjectivity. In this sense, the principles and practices of SC embody the spectral logic of an algorithmic governmentality, which abstracts from life and channels us into the economic circulation. SC is a deeply anti-democratic project, which tends to supplant political decisions and argumentation by calculation and computational certainty.

Zuboff is not an anti-capitalist and she does not reject market principles altogether. She argues that capitalism needs to be ‘cooked’ (i.e. tamed and regulated). In its raw condition, it is indigestible if not toxic. However, Zuboff provides no recipe for making capitalism edible, let alone enjoyable. In parts, the book reads like a gloomy end-of-the-world-scenario, but it is not: her analysis casts a dark shadow over the landscape of SC, but this shadow is paradoxically enlightening. It allows us to see the contours of the territory more clearly, illuminating gaping abysses that we would do well to circumvent, but also – if still obscured – backdoors and routes to escape. Against any doctrine of ‘inevitability’ (p. 221) Zuboff presents SC as a contingent historical product. It consists of a multiplicity of practices that are not determined but contain spaces of potential transformation. Such transformation does not require an algorithmic silver bullet to decipher the world for us and free us from evil. It requires something that is at once more simple and much more difficult: ‘friction, courage and bearings’ (p. 524). The book embodies these ideas: the intellectual courage to name the evil, to speak out, take a position, and create a frame for reflection that allows us to develop an ethical relation to these practices. Such transformations require cooperation, interconnection, and forms of collective organizing. The ‘digital revolution’ has not only modified the logic of accumulation (which Zuboff analyses so profoundly) but also the logic of cooperation. It opens new possibilities of participation and cooperation, as well as political resistance and change, that can support but also subvert the logic of accumulation. The inherent tension and antagonistic

dynamic is somehow underexposed in Zuboff's book. To actualize the transformative potential is a matter of creative practice, of finding lines of flight within the 'surveillant assemblage' and creating transversal connections to allow new forms of living and working together.

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