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53 Surveillance

Abstract: Surveillance is a central concept for understanding contemporary societies, both locally and globally. Among its many uses are policing and criminology, although many characteristics of today's surveillance are shared in a digital environment. One such is that current dependence on algorithms may jeopardize just and fair practices rather than enhancing human flourishing.

Keywords: visibility, social sorting, data justice

Introduction

The concept of surveillance is central to a contemporary understanding of the digital world, including digital criminology. However, unlike some other concepts used in this context, the word surveillance is more than two hundred years old and thus has seen major social, political, and technical changes that have prompted shifts in its meaning. From being a concept that once spoke primarily of "close observation, especially of a suspected spy or criminal" (OED, 2011), in the 21st century it acquired the sense of encompassing a whole political-economic order as 'surveillance capitalism' (Mosco, 2014; Zuboff, 2015, 2019). Surveillance now speaks of an infrastructural condition, increasingly, on a global scale. In between, the concept took on varied meanings, depending on its use in differing contexts of administrative, military, policing, epidemiological, workplace, and other areas. In each, the word was both a technical term for specific activities and, from the 1970s, a concept increasingly imbued with meaning first from computing and then from the expanding digital realm (see Digital by Wernimont).

The concept of surveillance relates to practices of 'watching over,' that have developed especially in modern, Western times, aided increasingly by mechanical and digital technologies. Surveillance here refers primarily to the human world but is frequently imbricated with the non-human and with technology. The concept of surveillance is distinguished by its associations with power and resistance, and by the varying kinds of meaning-making that accompany its spread. It is a much-contested critical concept in that its meaning is not settled in common use, and it is often debated in the context of political disputes, including those of crime and policing, both locally and globally.

In what follows, I offer a definition of surveillance relating to a range of social practices and note how it is distinct from other concepts, such as monitoring or spying. I then show how the concept has evolved through four stages: observation, sorting, digi-

tization, and dataveillance. Each stage represents a progressive shift further away from direct inter-personal watching and towards 'making visible,' first through organization and then machines, through to digital data (see Datafication by Chan). This prompts a discussion of the multidisciplinarity of the concept and finally to a brief survey of its analytical and practical value, as well as to the possible futures of the concept of surveillance.

The surveillance concept in context

Definition and development

The concept of surveillance as a social practice may be defined as "the focused, systematic and routine attention to personal details for the purposes of influence, management, protection or direction" (Lyon, 2007: 14). The concept points to both practices and purposes. Many qualifications are needed to fill out this definition. For example, this definition refers to 'attention to personal details,' thus allowing a stretch from 'watching' to listening and other kinds of 'attention,' including those enabled by electronic means.

The mention of 'electronic means' also hints that the simple 'watching over' of, say, a worker by an employer, is today much more subtle. Surveillance now "makes visible" (Taylor, 2017: 4) through many means, especially by data collection, analysis, interpretation, and action. Moreover, the 'making visible' achieved by surveillance might occur without any deliberate operator attention to, or awareness on the part of, particular people. Personal profiles may be constructed from disparate data, gleaned from consumer behavior and from a myriad of other apparently random sources.

Surveillance, then, is a modern concept, used in English since the 19th century as a loan-word from the French; *sur-* 'over' and *veiller* 'watch,' which both come from the Latin, *vigilare*, to keep watch. Spanish reflects this in *la vigilancia*, and *Überwachung* gives the same sense in German. Surveillance may be viewed as appropriate vigilance, to protect society from risks of attack, disease, crime, or corruption. Indeed, it may be considered as protective of freedom and liberty, as much as it is about care as control (Rule, 1974; Lyon, 1994; Taylor, 2020).

The use of the concept of surveillance, including its adverse aspects since the 19th century, is no accident. This was a period when industrial capitalism came into its own, involving new modes of organization and governance, both within emerging national and colonial governments and in new forms of economic life, like in production and consumption. From the first such usage, while direct perception was never abandoned, the technologies of surveillance were also important, entailing as they do, ways of enhancing first vision, then hearing and eventually, memory (Lauer, 2011). For example, improved lighting on the streets of Paris, to enhance visibility, was a policing priority in 1668 (Tucker, 2017). In the 1890s, San Francisco newspapers complained about tele-

phone operators listening-in on conversations (Lauer, 2011: 577), a practice soon followed by others rather than just operators. And while Thomas Edison promoted the surveillance use of his phonograph as a way of enhancing memory, in the 1880s, Edward Higgs notes that in Europe the state collection and thus 'memory' of citizen data—not only for 'control'—can be traced to the 1500s (Higgs, 2004).

However, from the mid-20th century on, surveillance itself was increasingly construed as a threat to freedom and liberty, not only when it was used to buttress Nazism and authoritarian communism but also—especially in the writings of George Orwell (1949)—in Western democracies. This negative connotation of the concept, including the *control* of the watched by watchers, is the source of much social criticism. However, some argue, the latter is not a necessary connotation (e.g., Andrejevic and Selwyn, 2022; Lyon, 2007). Nonetheless, the ongoing excessive, unauthorized, and often concealed uses of surveillance in government, the workplace, and the marketplace, seen especially from the late 20th century onwards continue to make the concept of surveillance politically contentious.

The above definition of surveillance may be used to understand the historical development of the term, its conventional and more controversial uses as a concept, and its ongoing critical capacities. Historically, 'surveillance' practices may be said to antedate the introduction of the concept of 'surveillance,' meaning that the concept may be applied to, for example, military intelligence, workplace supervision, and public 'policing'—also *avant la letter*—occurring from ancient times.

Increasingly, from the 19th century, it is the *technologies* used for surveillance that help to define the inherent changes in the modes of surveillance, that in turn require constant rethinking of the concept itself. Those technologies, themselves products of desires for improved communication, industrial production, or military prowess, became merged in the later 20th century, in 'information technology,' and latterly, on the internet, social media, and platform companies. Most recently, algorithmic analysis of extremely large datasets, artificial intelligence, and machine learning underlie many 'smart' surveillance activities, from fitness wearables to smart homes and cities (see Smart City by Hayward). Such issues are rapidly becoming crucial in surveillance debates (e.g., Crawford, 2021) including ones concerning both criminal and police use of AI.

This is why the concept of surveillance is not only required for but central to the digital context; the former has developed symbiotically with the latter. However, like its context, the digital, the practices of surveillance are means to other ends, rather than representing a human purpose in their own right. This may be demonstrated in each context where surveillance as social practices appear, which is why the practices are frequently controversial and the concept itself is contested. Here, the chosen window into the concept of surveillance is the burgeoning field of surveillance studies, within which criminology has played a substantial role from the outset.

The political-economic context and its accompanying technological features have always been significant aspects of whatever surveillance is practiced; to neglect them is to misunderstand both the phenomenon and the concept. Today, the digital

context, dependent on the internet and on complex algorithms, is central to surveillance. Data, in other words, is the means whereby human beings, in their many activities, are made visible, represented, and treated (Taylor, 2017). But although the concept of surveillance is rightly related to an infrastructural feature of contemporary societies, and is highly automated (Eubanks, 2017; Andrejevic, 2020) it also still refers to a set of *social practices* (Finn, 2012; Marx, 2016).

Related concepts

Several concepts are close neighbours of surveillance. One, 'spying,' is sometimes conflated with surveillance, unsurprisingly, due to the role of surveillance in intelligence gathering. The confusion is seen in former FBI Director James Comey denying the charge that the FBI spied on the Trump electoral campaign by placing it under electronic surveillance in 2019. "I have never thought of that as spying," he said (Kanno-Youngs and Schmidt, 2019). Unlike surveillance, one can argue that all spying involves secrecy, implying enmity or competition. A second concept is 'supervision,' which has similar roots as 'surveillance' but connotes not only observing, but also *directing the execution* of some activity or work. As we shall see, in a digital era surveillance is tending towards supervision in this sense, which means that further conceptual clarification is needed.

A third close concept is 'monitoring,' which also involves observation, often with the connotation of regular checking and reporting over time. In a workplace, for instance, employees may be monitored to check that their work is appropriate and satisfactory (Ball, 2010), but the workplace itself may also be monitored, for example, for health and safety or security. As Ball (2021: 11) observes, 'surveillance' and 'monitoring' may be used interchangeably in this context. However, the stress for those who use 'surveillance' is on power, politics, resistance, and meaning-making, whereas others are primarily concerned with the effectiveness—however defined—of monitoring.

If spying, supervision, and monitoring are close concepts to surveillance, then tracking and profiling should perhaps be added to the list. However, tracking and profiling, along with monitoring, are frequently used as concepts that specify what *aspects* of surveillance are under review. This is the case, for instance, in a recent book suggesting that 'tracking capitalism' might be a better term than Zuboff's 'surveillance capitalism' (Goldberg, 2021). Surveillance is in this sense an umbrella concept.

The concept of privacy is also associated with surveillance; sometimes it is seen as its antidote, if not its antonym (Stalder, 2002). Some engaged with regulating surveillance use 'privacy' as a key concept but may also quibble about using the concept of 'surveillance' in some contexts, such as marketing. Yet others argue that marketing both erodes autonomy and privacy *and* empowers consumers (Darmody and Zwick, 2020). Much debate hangs on how far privacy can cope with the *social*, as well as on individual aspects of privacy (Nissenbaum, 2009). Today, however, the digital environment frequently takes surveillance far beyond identifiable individuals and instead to-

ward the workings of a data infrastructure (Austin and Lie, 2021). The valuable concept of privacy thus becomes less germane to the full range of surveillance practices, reducing what was seen as its former larger congruence with the concept of surveillance. Following this, at the political level, pleas for privacy can only be a partial response to current surveillance practices.

The development of the 'surveillance' concept

The earliest meaning of the concept of surveillance, appropriate to its etymology, was that of *observation.* The 'watchman,' assigned to 'keep watch' in the city, was on duty in ancient times, until such watching was professionalized as a 'policing' task in 18th-century Europe. By 1829, Robert Peel established the Metropolitan Police in London, and interestingly, one of their roles was to *be visible* in 'preventive patrolling.' If watch-keeping was done in a military context, against an enemy, however, *concealment* was much more likely, as it would also be practiced in urban or national security contexts as 'secret policing.' And by the 20th century such secret policing became more frequently associated with covert government observation of populations in Russia after the 1917 revolution, or in Germany under the Third Reich. In this same period surveillance technologies including record-keeping were also adopted to enhance observational techniques (see Jeffreys-Jones, 2017; Lyon, 1994).

Equally, surveillance as observation also occurs in workplace settings, as it has, using different terms, for millennia. Employers' desire to check on the appropriate and timely fulfillment of work tasks is the purpose of surveillance. Here too, such observation became much more formalized with the development of industrial capitalism, especially with the expansion of factories, that typically entailed larger groups of employees under one roof. Direct observation by 'foremen' was gradually enhanced by technical means, prominently, to include information collected on workers (Beniger, 1989). Towards the end of the 19th century, not only the capitalist workplace, but also capitalism's marketplaces, also practiced surveillance, mainly by the collation of spending and preference information on consumers (Lauer, 2017; Igo, 2018) but also, now, through audio analysis (Turow, 2021). So, what began as the literal watching of bodies, in each sphere, has gradually morphed into the collection of data, thus permitting an 'image' of the person to be built by the surveillor.

The intervention of technology, then, enables a certain distancing, from observing bodies in space, to deducing aspects of their behavior, extrapolating future potentials, or enacting regulation from the information gathered about them. This process also enables a second sense of the concept of surveillance, the *sorting* of populations into categories of background and behavior, something that has become a key to conceptualizing surveillance (Lyon, 2003). Surveillance practices cluster people in social and spatial categories so that they can be represented and treated as members of such groups (see Categorization and Sorting by Franko). Foreign students in wealthy coun-

tries, for example, may be sorted and ranked by their 'desirability' as immigrants during the application process (Brunner, 2022).

The difference between observing and sorting may be elucidated by considering Foucault's (1975, 1977) famous description of the Panopticon prison, in which inmates are normalized into conformity with institutional expectations through constant 'inspection' by a watcher who is invisible to them. The covert aspect reappears in this version of the concept. Here, the success of surveillance hangs on the direct *observation* of bodies. However, earlier in his chapter on 'panopticism,' Foucault directed attention to 17th-century plagues, in which surveillance was carried out by the collection of information. Details of plague victims enabled control of the situation through *categorizing* them so that different groups were treated differently.

If the concept of surveillance has shifted from direct observation to include sorting, the increasing use of information technologies also facilitates a move away from concern with actual bodies to binary digits, or 'bits.' A third aspect of the concept is *digitized* surveillance. That is, the object of surveillance is less corporeal—the 'image' above—and more related to what is now called data. In the hands of Gilles Deleuze (1992), such a situation reduces further the association of surveillance with observed bodies, to one that refers merely to 'dividuals'; discrete bits of data rather than complex individuals. Rather than just being normalized, subjects of surveillance are pulled into the 'machine' of control, which is surveillance as management. As Haggerty and Ericson (2000) note, the body is as it were reconstituted—as consumer, employee, patient, and so on—to fit the surveillance 'assemblage,' which in itself is increasingly geared to predictive, future events.

Building on *digitized* surveillance is a fourth understanding of the concept—*datafied* surveillance or *dataveillance* (Clarke, 1988). This expansion of the concept of surveillance allows for the exploration of contemporary surveillance which in practice has become infrastructural for today's global societies. As van Dijck (2014) notes, dataveillance is 'continuous' as well as ubiquitous; it is always on, everywhere. Moreover, whereas earlier concepts of surveillance assumed that observation and sorting and even digitization began in distinct spheres, surveillance as dataveillance adds up to what van Dijck calls a "whole ecosystem of connective media" (p. 198).

This is expressed above all in the phenomenon of surveillance capitalism, where large companies monitor and profit from data produced by everyday activities online and in the physical world. Van Dijck's "ecosystem of connective media" is dominated by search engines such as Google, and social media platforms such as Facebook that use dataveillance as the basis of business, hence 'surveillance capitalism'—whether approached from political economy (Mosco, 2014; Foster and McChesney, 2014), computing (Clarke, 2019) or sociology and social psychology (Zuboff, 2019).

Note that the four senses of surveillance identified here are also *nested*—they refer to each other and each later one is dependent on the one that preceded it. Some kind of *observation* is required for categorizing and *sorting*; sorting is now *digitally* assisted, becoming part of the current *infrastructure* of surveillance.

Surveillance: a multidisciplinary concept

Because it is an inherently multidisciplinary concept, surveillance also has varying nuances of meaning within different disciplinary fields. Thus, for instance, its use in public health discourse and epidemiology is different from that in consumer marketing, and that in computing sciences from that of legal discourses in regulation and law. Even in the social sciences, such as sociology, psychology, political science, and cultural studies, the exact sense of the 'surveillance' concept may fluctuate. This calls for careful translation work as well as stimulating much-needed interdisciplinary debate.

The strictest use of the concept of surveillance, historically at least, is in the legal domain, where in the US it refers to "the act of observing another in order to gather evidence" which may be covert or overt (Legal Information Institute, 2021). This phrase situates surveillance in the realm of policing, although in this case 'surveillance' is prefixed with 'electronic.' In the European Union, the scope of surveillance is seen more broadly, assuming rather than adding the 'electronic' dimension. The Data Protection Supervisor (EU, 2021) notes that "technological progress in the past few decades have (sic) made monitoring, tracking and profiling practices easier, cheaper and more accurate." This reading of the concept includes, for instance, both the public sphere—such as security—and the private—such as targeted advertising. As with the social science-based understanding of the concept, then, the use of digital technologies inflects 'surveillance' significantly.

As noted earlier, the concept of surveillance is an umbrella sheltering a range of possible activities that often must be qualified for more precise use. Each of the four senses of the concept of surveillance mentioned above—observation, sorting, digitized surveillance, and dataveillance—reflects a technologically-enabled distancing from contact with actual human bodies, using cameras, telephones, computers, and other technologies. How this occurs, in different settings, also inflects the use of the concept in various disciplines. But changes in technology also spell a *return* to bodies, now understood as data-sources rather than as the objects of direct vision or audible signals, for instance through biometric technologies such as facial recognition or iris scans (see Facial Recognition by Fussey). As argued earlier, the dialectic movement between technology and surveillance now, at least partially, reunites the conceptual field.

This is especially true of the notion of surveillance capitalism that relates organizationally to platform companies in particular, and symbolically to the device of the smartphone. By turning the concept into a qualifier of 'capitalism,' the concept of surveillance undergoes another alteration as a societal or civilizational descriptor. In fact, discussion of surveillance capitalism offers further contemporary opportunities to rethink the concept of surveillance from several disciplinary perspectives. Disciplines such as political economy, sociology, computing sciences, geography, business studies, and others each have interests in how surveillance is parsed.

In the early 21st century several developments in particular warrant careful attention. One is the political economy of surveillance (Ball and Snider, 2019), referred to

above in the debates over 'surveillance capitalism,' especially in the form developed by Shoshana Zuboff (2019). Another is the rapid rise of postcolonial and decolonial theory (Breckenridge, 2014; Mbembe, 2003; McCoy, 2009), not least because many forms of surveillance that are apparent in the global north were first trialed in colonial regimes of the global south, but also because contemporary colonial situations depend heavily on surveillance (e. g., Zureik, 2016). Each of these is singularly significant to the concept of surveillance today, both in their own right, and also seen in relation to each other, as, for instance, varieties of surveillance capitalism proliferate in the so-called global south.

At least three further strands of surveillance research affect how the concept is construed: class, race, and gender. Discussions of surveillance capitalism cannot be severed from class relations (Foster and McChesney, 2014; Mosco, 2014; McQuade, 2018; Fuchs, 2012) and issues of colonialism are inseparable from those of racialization and surveillance (Benjamin, 2019; Browne, 2015). Artificial Intelligence and Machine Learning systems designed at the beginning of the pandemic, for example, were hotly debated by civil society and public health researchers, especially with regard to how and whether racial and ethnic data should be used to train modeling algorithms within COVID-19 prediction platforms (Singh, 2020; McKenzie, 2020; Choi et al., 2021). The deployment of AI in facial recognition systems, as another example, is fraught with racial biases, given, among other things, their propensity to misidentify women of color (Buolamwini and Gebru, 2018). As for gender, as well as a growing number of feminist studies of surveillance (Taylor, 2019; Dubrofsky and Magnet, 2015), questions of gender identity increasingly feature in surveillance studies (Ball et al., 2009; Abu-Laban, 2015; Kafer and Grinberg, 2019).

The spheres within which the concept of surveillance is used are diverse, for example in national security, policing, marketing, epidemiology, and public health. The concept may be controversial, for instance in marketing, but the practices and tools in that sphere so closely resemble surveillance in other areas, that using the term 'consumer surveillance' is warranted (Turow, 2021). Surveillance practices can even be denied in areas such as national security, especially after 9/11 and the Snowden revelations, when the NSA claimed that using 'metadata'—which is in fact very revealing—was not surveillant (Schneier, 2012; Lyon, 2015; Thompson and Lyon, 2021). Significantly, it is datafication and the internet which above all not only enable surveillance—as dataveillance—to occur on a mass scale, but also to exhibit similar features across different domains. Indeed, surveillance conducted by internet platforms produces data that is widely sought by government-related agencies (Srnicek, 2016).

Surveillance as a concept is often treated somewhat one-sidedly as having salience mainly for the activity of 'watching over,' by whatever means. Yet, especially today, when surveillance is no longer restricted to specific security or policing 'suspects' or 'targets,' but affects everyone, the *experience* of surveillance becomes an important feature of surveillance *effects.* Indeed, beyond this, the activities of those subject to surveillance in digital contexts increasingly make a difference to the surveillance itself. This occurs through a looping process (Hacking, 2006), in which surveillance subjects

become aware of being watched and may consequently change their behavior, thus making it all the more essential that this dimension be considered (Lyon, 2018). Thus, social psychology and cultural analysis also have insights for surveillance studies.

Lastly, recall that some of the most significant studies of surveillance occur within works of literature, film, and art. Moreover, these have in turn stimulated conceptual work in other fields. For instance, one of the earliest sociological studies of surveillance (Rule, 1974) is clearly influenced by George Orwell's classic novel, *Nineteen-Eighty-Four.* Of course, Orwell's Big Brother has inspired many other arts productions, including the TV series of the same name, which queries the experience of surveillance (McGrath, 2004). The most recent relevant novel at the time of writing is Dave Eggers' *The Every* (2021), a brilliant sequel to *The Circle* (Eggers, 2013). In art, surveillance is a seductive theme in many exhibitions, and it is a prominent muse in ZKM's *CTRL [SPACE]* (ZKM, 2001; Allen et al., 2010). Film, too, plays a major role in exploring the concept of surveillance; classics include *The Conversation* (1974) and *Minority Report* (2002), which serendipitously coincided with the post-9/11 understanding of predictive dataveillance (Kammerer, 2012). Later, the TV series *Black Mirror* (2011–2019) played a role in sharply alerting viewers to some negative dimensions of digital surveillance, and documentaries such as *Social Dilemma* (2020) expose aspects of surveillance capitalism.

Relevance and impact of the concept

The concept of surveillance has a multi-faceted relevance and impact. While acknowledging its early significance in the 19th century, its relevance is vastly greater today. The impact of computing developments in the mid-20th-century Cold War era considerably raised the profile of the concept of surveillance and the growth of the commercial internet in the 1990s elevated it further until it reached exponential levels with social media in the early 21st century. The attacks of 9/11 (Ball and Webster, 2003), the Snowden revelations (Lyon, 2015), the Facebook-Cambridge Analytica scandal (Bennett and Lyon, 2019), and above all the global COVID-19 pandemic (Lyon, 2022a), clearly illustrate this point. Each event stimulated explosive growth in surveillance, involving both government–corporate partnerships and ordinary citizen-consumers.

The social sorting dimensions of surveillance are crucial to each expansion, increasingly so as 'smart' data analysis is infrastructurally implicated. Social sorting occurs on large, medium, and small scales, from global corporations to police departments to micro-businesses. While certain efficiencies may thus be enhanced, such sorting also has a demonstrable tendency to create or exacerbate the vulnerability of some groups. This applies especially to low-income people, or those caught in the intersections between class-race-gender categories. The sorting dimensions of contemporary surveillance were noted early on by Oscar Gandy (2021) and elaborated upon subsequently by many others (e.g., Lyon, 2003, 2021).

The majority of surveillance activities today are data-dependent, and their outcomes are the product of data gathering, analysis, and use (Cheney-Lippold, 2017).

COVID-19 pandemic-driven technological developments illustrate this well. The hasty design and development of digital identity systems around the world is one such example. As governments worked closely with the private sector to develop smartphone-based identity and vaccine verification solutions, their rationale is at once a matter of mobility and of economic recovery. This speaks directly to the fact that modes of surveillance are frequently implicated in processes that affect the life chances and choices, and the conditions of freedom and fairness, of millions world-wide.

The smartphone is the primary device for surveillance activities today, built on the communications network of the internet, and enabling surveillance of a highly personal—identifiable—and geographically locatable kind. While this sprang from the identifying, tracking, and sorting of consumers, and was hugely enhanced by the advent of social media, the resultant data, and the methods of processing it, continue to leak into different spaces. Access to such data has been made possible to policing, security, administrative, and other agencies. Political responses demanded by the distinctive modes of surveillance emerging in the 21st century include basic rights relating to data-handling. Importantly, notions such as 'data justice' (Taylor, 2017; Dencik et al., 2019) and 'digital citizenship' (Isin and Ruppert, 2020) are gaining currency for their relevance to contemporary surveillance, alongside appeals for privacy and data protection (see Privacy and Data Protection by Bygrave).

Conclusion

Analytically, modifications to the concept of surveillance mentioned here are helping to confront new realities such as 'smart' and 'platform' surveillance. Innovative proposals, such as data justice, are also important because they inform policy and regulation, as well as public opinion, at a time when older policy concepts such as privacy and data protection (Puri, 2021) require careful overhaul (see, e.g., Lyon, 2022b). Future directions for the concept's usage would do well to follow the routes of recognizing the political economy of surveillance—seen in debates over surveillance capitalism—and the decolonial approaches that are illuminating not only the global south, but also in the global north, among once-colonizing nations. At the same time, each conceptual expansion contributes to the vital focus on growing vulnerabilities associated with current data-surveillance practices that are deepening inequalities of class, race, and gender (see Vulnerability by Ranchordas and Beck).

Surveillance is a contested concept, just because it is one of such great significance, especially in the present, and because alternative intellectual and political traditions view it differently. One seemingly intractable issue is whether the associations of surveillance with power and authority mean that its impacts are *inescapably* negative (Monahan, 2021; Harding, 2018; McQuade, 2018). Given the cognate evidence of how much surveillance continues to be dependent on military-security, rapacious capitalist, and white colonial forces, its dubious reputation seems well-deserved.

Those who take a different view argue that surveillance may be performed not only in benign fashion—such as in public health surveillance and even in some types of policing and security surveillance—but also positively, for the common good (Stoddart, 2021). The latter arguments depend, not on seeing surveillance through rose-coloured spectacles, but on recalling that the concept of surveillance always refers to social practices, and thus are subject to principled critique and open to political challenge. As criminologist Gary Marx has stated, "surveillance itself is neither good nor bad, but context and comportment make it so" (Marx, 2016).

Surveillance is also an inherently critical concept, one that alerts us to some of the most egregious injustices and entrenched power imbalances visible worldwide. But it is also increasingly complex and hidden, raising new challenges for empirical investigation. Critical researchers strive to make hidden surveillance data visible and legible to civil society. Equally, surveillance is critical because it questions the authority of those who argue in techno-solutionist (see Mozorov, 2014 for assessment) and technologically determinist (see Zuboff, 2015 for assessment) terms that dataveillance serves, primarily, the cause of human betterment.

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