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Article | Policing as Digital Platform

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Abstract

Much of the discussion about platforms and "platform capitalism" centers on commercial platform companies like Google, Facebook, Amazon, and Apple. Shoshana Zuboff's (2015) analysis of "surveillance capitalism" similarly focuses on Google as the trailblazer pushing the new logic of accumulation that is focused on data extraction and analysis of human activities. In his typology of platform companies, Nick Srnicek (2017) includes less visible *industrial* platforms that situate themselves as intermediaries between companies rather than between companies and consumer-users. In this article, the focus is a platform-building effort that looks something like an industrial platform but differs in the sense that the company in question, Axon Enterprise, aims to situate itself as an intermediary within and among law enforcement agencies (non-market entities) as a means of building a large-scale data-extractive system of monetization. Axon's business strategy is emblematic of the ways that police evidence and record-keeping systems are being reimagined, and to some extent reconfigured, as sources of data extraction and analytics on the model of the platform. Whether Axon succeeds or is eclipsed by a competitor like Palantir or even Amazon or Microsoft, the process of reimagining and reorganizing policing as a platform is underway—a process that, to paraphrase Zuboff, deeply imbricates public and private surveillance activities, dissolving the boundary between public and private authority in the surveillance project.

Introduction

As systems designed to extract data about user activities, large-scale digital platforms like Facebook, Google, and Amazon are surveillance systems by design. What Nick Srnicek (2017) and others call "platform capitalism" and what Shoshana Zuboff (2015) calls "surveillance capitalism" are deeply imbricated and, in many ways, one-and-the-same systems of economic circulation, production, and accumulation. Here I explore the imbrication of surveillance with platform capitalism by considering some of the ways that the logic of platform capitalism is making its way into and remaking the domain and activities of the criminal justice system in the United States. I hope to contribute to an emerging discussion (among a selection of contributors to this issue of *Surveillance and Society* and others thinking along these lines) about "platform policing," or the dispersed and varied efforts to reorganize policing (police agencies, labor, communications, and especially police record-keeping systems) on the model of the platform. Platformized policing promises to incorporate new forms of automation into police record-keeping systems, doing so in order to redistribute labor and to accelerate, integrate, scale-up, and make more efficient and effective the information-intensive activities of policing. The effort to refashion policing according to the logic of the platform—extracting data about police activities and analyzing those data for what is now being called "precision policing" (Bratton and Anderson 2018)—treats this domain as a site of commodification, expropriating the non-proprietary information generated by police work. In other words, reconfiguring policing on the model of the platform is aimed at *integrating policing more fully into the digital economy.* The imbrication of platforms and policing suggests the central place that police power plays in the platform

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economy, both as a means of enforcing its hierarchies and property relations and as itself a source of data and value extraction.

My focus here is on the supply side of the process of police platform-building and specifically on Axon Enterprise, formerly Taser International, a company on a mission to build a large-scale digital platform for policing. As noted in a 2018 *New Yorker* profile, the company has moved into "Act II" of its corporate biography, shifting focus from less-lethal weapons to body-worn cameras as its primary business (Goodyear 2018). While Axon is not the only police contractor reinventing itself for the digital age, it stands out as a company with a decisively platform-oriented, "winner-take-all" approach.[1] Over the last several years, the company has been remaking itself as a platform company, building on its earlier business as a contractor supplying police agencies with less-lethal weapons and refill cartridges. The name change from Taser to Axon was part of this transformation; Axon was the brand name originally given to the company's body-worn cameras and is now the brand name of its platform, what it calls "the Axon Network." As a publicly traded company with a high-profile corporate image, Axon's business strategy is more explicit and publicly accessible than more secretive companies operating in this space (like Palantir, for example). It is also competing in some ways with major cloud service providers like Amazon and Microsoft, information technology (IT) companies whose range of platform clients and technology offerings suggests the deeply interwoven connections between the IT and security industries. Here I draw primarily from a small sampling of Axon's promotional communications aimed at police agencies as well as its investor relations materials aimed at the finance community, and coverage the company has received in the press. The company's ultimate fate is undetermined, but its business strategy and corporate performance provide a glimpse into current efforts to target the domain of policing for data extraction and large-scale platform development.

Most of the discussion about platform capitalism has focused on commercial platforms that have built their business models on the massive accumulation of Internet user data: that is, platform companies like Google, Facebook, Amazon, and Uber, which operate in the commercial sphere and offer their services to consumer-users of the Internet and mobile apps. While Axon shares some of the characteristics of these digital platform companies, it does not fall precisely within the conceptualization of commercial platforms that have been addressed in the emerging literature on this topic. How is Axon's platform similar to and different from other digital platforms?[2]

Like all digital platforms, what the folks at Axon are calling "The Axon Network" is as imagined as it is real, and the imaginary vision plays a crucial performative role. Axon currently uses "The Axon Network" as the brand name for its platform as well as a more encompassing catch phrase, leveraging multiple meanings of the term "network." Like the term "platform," it is a structural metaphor that is "specific enough to mean something, and vague enough to work across multiple venues for multiple audiences" (Gillespie 2010: 349). Among its various uses, "The Axon Network" sometimes refers to a technical infrastructure of proprietary hardware and software, consisting of less-lethal weapons, in-car cameras, body-worn cameras, camera docking stations, and a cloud-based, digital evidence management system. At other times (or simultaneously), the name is used as a reference to something like an imagined community, encompassing all the people professionally associated with Axon, including its executives, engineers, and other employees as well as its law enforcement clients, from police rank-and-file to police chiefs and prosecutors. In its broadest uses, "The Axon Network" is meant to refer to a distributed assemblage of people and things, an integrated network of company executives, employees, investors, corporate partners, and customers as well as the contracts and technical infrastructure that connects them. Like the term "platform," "The Axon

[1] Kenney and Zysman (2016) explain that "many platforms by their very nature prove to be winner-take-all markets" (68), which doesn't distinguish the tendencies inherent in the platform economy from any other form or phase of capitalism.

[2] The five types of platforms that Srnicek (2017) identifies are: (1) *advertising* platforms like Facebook and Google, (2) *cloud* platforms like AMS and Salesforce, (3) *industrial* platforms like Siemens and GE, (4) *product* platforms like Spotify and Rolls Royce, and (5) *lean* platforms like Uber and Airbnb.

Network" has computational, architectural, figurative, and political uses and connotations, sometimes all of these associations at once (Gillespie 2010).

Axon exhibits some of the features of *cloud* service providers like Amazon Web Services and Microsoft Azure but with important distinctions. Axon does not rent out its own computing infrastructure to a wide range of other firms; instead, Axon uses Microsoft Azure to host its cloud-based *software-as-a-service*, and this service is designed to serve the specific needs of its main customer category: law enforcement agencies (Microsoft Corporation 2015). While the company is most known for its body-worn cameras, Axon's back-end, cloud-based evidence management system called "Evidence.com" is now its main revenue stream and strategic growth area. Like the major cloud platforms, Evidence.com offers its customers the possibility of outsourcing their IT departments, reducing or eliminating their need for in-house expertise and back-end IT infrastructure. In turn, Axon makes the software design decisions and has access to the data that its customer agencies upload to Evidence.com, including an ever-expanding volume of bodycam video as well as other multimedia content and metadata associated with investigations and police work. Evidence.com was initially designed as a media asset management system for bodycam video, but problems with creating a separate siloed system were quickly apparent. It became obvious that to be maximally useful, Evidence.com would need to be envisioned and designed as a more general-purpose case-management and record-keeping system beyond bodycam video. At the time of this writing, Axon engineers had begun working with a selection of police agencies to develop a new Records Management System (RMS), called "Axon Records," as a more integrated, end-to-end information management system for policing. As described at Axon's website, its new RMS is being built "to be easily searchable" and to offer tools "for paperwork automation, effortless information sharing, and digital evidence integration" (Axon Enterprise, Inc. n.d.).

Although search is a key function of its platform, Axon differs significantly from Google not only in terms of who is able to access and use the Axon platform but also in terms of its platform business model and source of revenue. Unlike Google, Axon neither derives revenues from advertising nor, like Facebook, from selling user data to third parties. Still, Axon's corporate leadership has drawn ideas and inspiration from Google in developing business strategy and vision for the company and especially for strategizing ways of addressing the problem of data analytics. CEO Rick Smith cited Google's investment in and experiments with artificial intelligence (AI) as motivation for Axon's acquisition of two start-up companies in the machine learning space, forming an internal group called Axon A.I. on the model of the Google Brain team.[3] Axon A.I. is tasked with developing machine learning for video analytics in order to address the challenges of managing and making use of the massive quantities of video from body-worn cameras and other sources accumulating on Evidence.com. According to a company press release, "the addition of artificial intelligence to Axon's upcoming records management system (RMS) has the potential to automate the collection and analysis of virtually all information in public safety while extracting key insights never before possible" (Taser International, Inc. 2017). In other words, Axon very much mirrors Google and Facebook as platforms that extract enormous volumes of user data—quantities that can only be made useful, or further monetized, with the development of automated forms of data analytics (what is now being called "AI").

As a company with a particular customary category of institutional users, Axon shares some things in common with what Srnicek (2017) calls *industrial* platforms: IT companies, like Siemens, that are competing to "bring platforms into the field of traditional manufacturing" (65). These less visible business-to-business platforms situate themselves as intermediaries between companies rather than between

[3] Axon CEO Rick Smith often mentions the big tech firms as inspiration for business strategies the company is adopting. For example, in an interview with *PoliceOne*, he explained:

> There is massive interest in AI right now, from all major tech companies. . . . Whether it's Elon Musk or Bill Gates, many of the tech thought leaders are pointing out that everything that we've been building in software up until now has been leading to this. Self-driving cars are becoming a practical reality, and you couldn't do that without AI. Google rebuilt their entire Google Translate in nine months using AI, and its performance significantly improved over the old version—which was built by hundreds of engineers (quoted in Wiley 2017).

companies and consumer-users. It should be noted that what Srnicek describes as the incorporation of the digital platform into traditional manufacturing is not an entirely new development; rather, it is continuous with what Dan Schiller (2007) has documented in painstaking detail: the "expanding and intensifying exploitation of information as a capital good" (24) across a wide swath of industries beginning around 1970 and undertaken by US elites in response to a decline in the US share of global manufacturing. In any case, Axon's vision for its platform especially resembles industrial platforms in terms of an important innovation that has itself expanded and intensified: that is, the way that such platforms incorporate sensor devices into industrial operations to extract data, analyze those data, and use those analyses to reconfigure logistical processes with the aim of increasing efficiency, namely by reducing labor costs. Axon's body-worn cameras, in particular, are proving to be more than audiovisual devices; they are also being designed as signal-emitting sensor devices for extracting data about officer actions, locations, and movements.

In fact, in Axon's current vision for "The Axon Network," all of the technologies integrated into the activities of policing can potentially function as signal-emitting sensors—an ever-expanding network of data-generating devices, including not only body-cameras and drones but also dash cameras, patrol cars, taser devices, handguns, and more. The idea is that these devices will continuously generate data to be processed in real-time to perform command-and-control functions and to be recorded for later uses, including investigations, prosecutions, suspect profiling, crime mapping, "precision policing," and more. Again, it would wrong to see this vision as entirely unprecedented. A similar proposal for a network of sensor devices, continuously generating information to be analyzed as a means of optimizing police operations, was described in the 1967 Institute of Defense Analysis *Task Force Report*—unearthed by Dean Wilson (forthcoming).

This "expropriation of non-proprietary information" (Schiller 2007) from law enforcement agencies raises questions concerning who owns the data generated by the criminal justice system and what companies like Axon are permitted to do with it.[4] It is not clear whether police records can be commodified by third parties without the consent of the police agencies that produce those records. In its communications aimed at law enforcement customers, Axon repeatedly insists that the company does nothing with police agencies' data without the consent of those agencies. The company would obviously do well to abide strictly to the consent of its law enforcement customers regarding the uses of evidence and record-keeping data. However, it would be naïve to assume that the scope of appropriate uses of police data is a settled matter or that decision-makers in police agencies would oppose commercial uses of the data generated by those agencies, especially where incentivized to consent to commercial uses. Axon also has a great incentive to experiment with the data to the fullest extent possible, to find new ways to use those data to ensure the company's competitive advantage and survival. One wonders, for example, whether each of Axon's customer agencies consented to having the Axon logo imprinted on body-cam videos, where it now appears and in effect brands these videos, making a claim to ownership as Axon's intellectual property.

Decision-makers in police agencies may or may not object to allowing Axon to brand or otherwise claim partial ownership of body-cam video or to capture, experiment with, and monetize the volumes of data generated by the activities of policing. But what about those on the receiving end of new platform-powered police logistics, those whose encounters with the police are captured in these data? Are decisions about the uses of data that are generated by police activities best left to police agencies themselves or to the criminal justice system more broadly speaking given its intensifying prosecutorial orientation? Responding to the priorities of its primary customers, Axon is envisioning and designing its platform as a prosecutorial technology, a position it makes explicitly in a statement from its quarterly financials: "Modern police record-keeping is fundamentally about gathering the evidence associated with an event and transferring it to a prosecutor to use in the court system" (Axon Enterprise, Inc. 2018). This statement, of course, ignores the other institutional actors that make use of these records, like insurance companies, human resource departments, welfare agencies, and the press (Ericson and Haggerty 1997). Yet, it speaks volumes about the

[4] Similar questions are raised about the vast quantities of data expropriated by the industry of security and intelligence contractors.

priorities that shape the police platform-building effort. What does the importation of the platform business model into the criminal justice system portend for the workings of this system and the social functions it performs given this assessment of the fundamental purpose of police record-keeping?

The extraction of data about user activities is a defining activity of platform capitalism, and this data extraction is made possible by another fundamental feature of platforms, namely their position as *intermediaries* (Srnicek 2017; Langley and Leyshon 2016). In what ways, or between what entities, does Axon aim to position its platform as an intermediary? With body-cameras heralded as technologies of police accountability, Axon's pivot into the police body-camera market appears to be a move that positions the company and its platform as an intermediary between police agencies and the public. As a repository of police body-cam video, Evidence.com is in some ways designed to mediate exchanges between law enforcement agencies and entities outside the criminal justice system, such as news organizations and those making FOIA requests. However, Axon's body-camera systems are not being designed primarily to facilitate the transparency and accountability of police activities to the public. Instead, Axon is positioning its platform as an intermediary between different actors within the criminal justice system—between and among police officers, detectives, chiefs, forensic video analysts, prosecutors, media relations professionals, and other insiders. It is also being envisioned as an intermediary between and among law enforcement entities in different jurisdictions. This intermediary role facilitates, most obviously, the sharing of evidence in criminal investigations between collaborating agencies, but it also points to a vision for a much larger-scale proprietary infrastructure for policing.

Axon's effort to establish its platform as an intermediary between different law enforcement agencies is tied to another essential characteristic of platform companies, namely the principle aim to produce *network effects*, building the value of the network by bringing more and more users on board. A 2018 investor relations document reporting on Axon's second-quarter results expresses the business strategy explicitly: "We are focused on building highly defensible subscription revenue models that are expected to provide stable and consistent recurring revenue, and developing software that generates network effects that will add to the stability of our recurring revenue streams" (Axon Enterprise, Inc. 2018). The aim is to continuously build network effects by acquiring more police agencies as customers who pay not on a one-time, fixed-cost basis but on a continuous, subscription-based model. Moreover, Axon's platform aspirations and its drive to build network effects were perhaps most apparent when it acquired its chief competitor, the body-worn camera company called VIEVU, a subsidiary of the Safariland Group, after VIEVU won the New York Police Department (NYPD) body-worn camera contract (Brustein 2018). As the folks at Axon clearly understood, no company could expect to secure a position as the leading digital platform for US law enforcement without winning the NYPD contract, the largest police agency in the country with over 35,000 sworn officers (and headed up by a leading authority on police management strategy). Axon's acquisition of VIEVU, of course, also underscores the *tendency towards monopolization* inherent in platform-building (Srnicek 2017).

The drive to produce network effects is also a drive to build *scale*, and in this sense, Axon's police platform, like other platforms, is in a constant process of construction, as leveling off in terms of both number of users and range of uses is tantamount to failure or obsolescence. Another defining feature of the digital platform related to the drive to generate network effects is this process of continuous assembly: the platform is a perpetual logistical exercise in construction. Platform-building efforts involve collecting ever-expanding quantities of data about user activities and engaging in constant experimentation with those data, tweaking and redesigning dimensions of the platform in an endless process of upgrades, each one modifying and modulating the platform's intermediary functions. For its part, Axon is continuously conceptualizing and designing its platform in response to what it determines to be the needs of the criminal justice system. Yet, the company must also marry those needs to its own priorities to survive and grow as a company, to build recurring revenue streams and maintain the value of its publicly traded stock. Precisely how the demands of the platform business model—especially the priorities to continuously scale-up, bring more users on board, and extract and monetize ever-expanding volumes of data about user activities—will square with the demands of policing and how it will affect the operations of the criminal justice system are questions that

require much further attention. What also needs greater attention are the many ways that the logics and practices of policing are themselves embedded in the model of the platform, as defining components of platform capitalism.

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