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A Survey of Surveillance: Origins and Implications of Surveillance and Surveillance Technologies

Madison Liao

The University of Texas at Austin

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Abstract:

This paper examines the systems that perpetuate modern surveillance, particularly the impact our historical beliefs have on shaping our modern ideologies about surveillance. I divide this paper into three sections to examine how surveillance has developed and how it is further perpetuated. First, it explores what historical circumstances lead to our modern conceptualization of surveillance, including surveillance's relationship with management and bureaucracy. Next, the thesis defines surveillance, drawing from different definitions across disciplines. Then I utilize an institutional perspective to analyze what beliefs and ideologies we hold about surveillance, and how those facilitate its expansion. As a whole, this paper challenges the argument that surveillance is a result of technological determinism, and instead demonstrates that surveillance's expansion is fueled by historical and societal beliefs about security, industrialization and capitalism, as well as the technologies and systems that have evolved with the advent of cyberspace and rapid technological innovation. These forces and the consequent surveillance have psychological, economic, political and social effects on all populations, but most severely on marginalized ones.

Keywords*: Surveillance, Surveillance Capitalism

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Introduction

In popular culture, surveillance has been largely portrayed as an Orwellian reality, a bleak forecast of a world where technology and government are allowed to expand unchecked. However, subtly and insidiously, modern surveillance has expanded and grown immensely in the last twenty years. While formerly limited by the constraints of technology and information organization, surveillance has now become almost ubiquitous with technology, particularly with the expansion of technology through capitalism. Data has become a commodity, and the process through which data is acquired comes from surveillance and data accumulation. Through the mass collection of personal data and behavior, surveillance and data analytics have become the dominant logic of a number of industries, from social media (Merrill et al. 2021; Zuboff 2020) to bureaucracy, and to the justice system ().

This paper seeks to contribute to the growing literature surrounding technological surveillance by empirically answering questions that are essential to defining and understanding surveillance. While the effects of surveillance are large and far reaching, this paper focuses on the systems that perpetuate surveillance in order to demonstrate how these systems develop and what functions are necessary for their expansion. To do so, I cover three different aspects of surveillance in this paper. The first covers the historical circumstances that have led to our modern conceptualization of surveillance. In this section, I argue that surveillance is a response to insecurity. Throughout history, surveillance has developed from a mundane form of population management, to its modern, extended form, through globalization and technological expansion. In this section, I emphasize the events of the Cold War and 9/11 as essential marking points for surveillance and surveillance technologies to expand and privatize. In the second section, I draw from surveillance's historical and modern uses to outline a working definition of surveillance, expanding on several previously established definitions. Surveillance is difficult to define because it a) has such a long history and differing uses, and b) is constantly changing. However, some defining characteristics of surveillance I discuss in this section are: the power dynamic between the surveiller and the surveilled, its ubiquitous assimilation into global culture, and its affinity to control populations, particularly through profit. Lastly, aside from the systematic evolution of surveillance and the systems that perpetuate it, I analyze some popularly held beliefs about technology, privacy, and crime that allow surveillance to entrench itself so deeply into our society. Surveillance has not only been a rational pursuit of population control and profit; it's been additionally fueled by wider societal beliefs we have about surveillance and security.

A Brief History of Surveillance

Surveillance begins with insecurity; physical insecurity, political insecurity, and psychological insecurity. Under the logic of fear of insecurity, early philosophers characterize the need for government as a 'guarantor of freedom' and used to ensure security (Galantonu 2016). So, to ensure this safety from others, the state became a rational agent to represent our fear of insecurity and physical harm. Surveillance is partially a result of this desire for protection and safety, but to understand its complete development, we have to understand the historical circumstances of its usage. Throughout history, surveillance developed from population protection and management to an insidious form of population control. Population growth created an inherent necessity for surveillance, and the role of government in large societies

turned to "informatization" to manage their growing populations. The historical barriers of surveillance and data recording were dismantled in the 1900s, and digitization and the advent of the computer facilitated a new wave of surveillance. Surveillance is also not limited to the government; surveillance's growth can be partially attributed to its rapid expansion into private industry. The ubiquity and pervasiveness of this new surveillance will have and have had long reaching consequences for human behavior. But to understand those consequences, we must first examine what historical events have led to the development of surveillance.

One of the first factors for the expansion of surveillance was urbanization. With the rise of early urbanization, rapid population growth and the subsequent increase in conflict gave way to the necessity of classification and order (Galantou 2016; Beniger 2019; Weller 2014). Censuses have been recorded as early as 2 AD, and during the Roman Empire, records were kept on all eligible men for the military register. So as civilization grew, so did the necessity for management (Weller 2014). Population management was an early purpose of surveillance, and population management is still a key purpose today: in the form of employment, identification and public safety agencies. The difference is that this information was formerly highly localized and irregular, while in our modern-day context, it is rationalized and extended into the form of surveillance we know today (Weller 2014).

Surveillance grew as a form of population *control* instead of population management with the appearance of colonialism. The necessity for surveillance was evident in colonized countries: a hostile, large, and undifferentiated population led colonizing powers to the use of strict surveillance (Berda 2013; Sa'di 2014). Colonized populations were documented, resettled, registered, and classified for the sole purpose of control, and these surveillance techniques led to very tangible repercussions; such as unstable borders and administrative practices (Berda 2013, Sa'di 2014). This has led to widespread violence along the classifications the colonizer created; modern civil wars, ethnic clensing and genocide can largely be attirbuted to the racial catagorization that colonial powers established (Sa'di 2014). During the period of colonization, surveillance also inevitably ended up creating an early system of identification, cementing its role in defining who's who. Colonialism caused the need for classification and identification based on power; such as registration for colonized populations and fingerprinting for ethnic minorities (Major 1999; Sa'di 2014). Additionally, interracial marriage and the birth of interracial children became a vital worry of colonial administration, and laws dealing with racial identity are a direct result of this classification (Sa'di 2014).

While the global spread of colonialism and population growth prompted early surveillance, the worldwide trends of globalization and industrialization further exacerbated the growth and spread of surveillance. In Europe, and then America, urbanization kicked up between the 18th and 19th centuries, and it became necessary to expand government to cover larger areas of land and growing populations (Beniger 2009). Revolutions in transportation and communication, changes in the workforce and the nature of industrial work, as well as migration into new urban areas made the record keeping branch of government grow exponentially (Weller 2014). For these new and plentiful population growths that did not have an existing administrative infrastructure, the role of government broadened alongside the growth. This was accompanied by necessary growth in transportation, information collection, record collection, and communication technologies (Weller 2014).

But here, surveillance has only started. Surveillance, while it had taken root in the form of record keeping and administration, didn't have the technological ability for worldwide spread and ubiquitous assimilation. While America was rapidly industrializing in the 19th century, there was also rapid technological advancement. New technology designed to collect and control information became necessary for government and private corporate growth, and there became a desire to use that technology. Exacerbated by the events of the two World Wars between 1914-1918 and 1939-1945 and the Cold War, government surveillance escalated (Weller 2014). The events of the Cold War and the fear of instability and communism facilitated the notion of a 'secret service' to collect information on and monitor dissenting citizens and political threats; which became a key characteristic of early modern surveillance (Weller 2014). This is apparent through the creation of the Federal Bureau of Investigations in 1908, the National Security Council (NSC) and the Central Intelligence Agency (CIA) in 1947, and the National Security Agency (NSA) in 1952 (Gates 2014). Similar programs cropped up in other industrialized countries, the British National Secret Services in 1909, and Russia and Australia's secret services in the 1950s (Weller 2014). The battle to combat communism and state instability is an underemphasized and rarely noted turning point for modern surveillance. This American characterization of surveillance and security spread throughout the world, exported to other countries under the guise of "international cooperation" against communism (Gates 2014).

Simultaneously to the growth of covert surveillance, modern public administration largely expanded after the Second World War, with many countries developing the beginnings of universal healthcare, welfare, taxation, and education services to citizens (Webster 2014). Large scale bureaucracy seemed to be the only way to administer these benefits to these large, industrialized, and yet *specific* populations. This included developing rule-based classification and paper based personal identity. This is an extension of an early purpose of surveillance, population management, in a distinctly modernizing context. A key task of administration became creating, managing and recording classification alongside the protocol and bureaucracy necessary to utilize such information. These services can be considered what William Webster (2014) calls the "building blocks" of modern society, and tangentially, modern surveillance. Surveillance has always been a part of public record keeping, it's innately necessary. However, the scope and reach of this surveillance, the facilitation of covert surveillance and the expansion of administrative surveillance, represented the change in surveillance during the 19th century.

It also becomes essential to note the impact of the growth in computers and digitization in surveillance studies. Early developments in corporate and government technologies have created an ease of collection, data-handling and surveillance, and overcome its historical limitations of space and organization. This development has impacted identity, power, institutional practices, and interpersonal relations on a scale similar to industrialization, globalization or modernity (Lyon, Haggerty, and Ball 2014). Even considering early political and social surveillance, the way surveillance began to be used in the late 1900s is distinctly modern in nature. During this period, surveillance began its unstoppable development into a centralized, vast, and formal structure that has become ubiquitous to modern society (Andrejevic 2014). The nature of surveillance and data collection have also changed; it's come

far from the passive consolidation of statistics and is beginning to be used for the *active control* of individuals (Weller 2014).

Many scholars refer to 9/11 as the turning point in the implementation of surveillance technology and the resulting expansion in the systems that enable it. As previously discussed, surveillance systems had been developing and creeping into government since urbanization. However, in the late 1900's, the U.S and other industrialized countries from the Global North were beginning to have their cultural and state legitimacy challenged through technological and ideological advancements from previously unknown threats (Wood 2014). After the Cold War, the reasoning of "homeland security" allowed for state legitimization of surveillance technologies (Gates 2014; Norris 2014). The development of these agencies and technologies just needed a reason to facilitate their push into ubiquity, as well as into new markets. 9/11 served as that point and allowed the state agenda of furthering surveillance to easily permeate into the consciousness of the American people under the guise of protection against terrorism. That fear of terrorism and growing crime rates spurred the emergence of "intelligence led policing", and led to the belief that law enforcement would be on the front line of defense against terrorism (Brayne 2017). This led to the uptick in federal aid aimed to expand the scope of police surveillance and data collection (Brayne 2017). However, it's important to see 9/11 as not a turning point, but as important punctuation allowing for surveillance technologies in the making to rapidly expand, including expansion into the private industry through government and law enforcement outsourcing (Lyon 2014). Use of CCTV technology and criminal surveillance firms in the early 2000's were presented as the logical answer to terrorism and were rapidly implemented throughout industrialized countries without much regard for its viability and efficacy in preventing crime (Norris 2014). "Homeland security" became defining of US policy after 9/11, leading to the creation of the Department of Homeland Security in the months following 9/11 (Gates 2014). However, this obsession with "homeland security'' extended to other industrialized countries under the guise of the worldwide threat of terrorism. In this way, modern surveillance is not limited to the US, it is international, driven by both government and industry, and has long lasting repercussions.

While modern security surveillance started in the early 1900s, it is still coming to a head today. While surveillance is defining of most administrative systems, the way that we collect and disseminate data is distinctly modern. During the late 1900's and early 2000's, data that has previously gone uncaptured due to the limitations of technology and the reach of government are now integrated into everyday life. Modern surveillance is not limited to the government, in fact, it is now largely developed and dominated by private industry. Huge technology companies like Microsoft, Google, and Facebook have begun to have access to information not even the government has in the form of commercial data collection. They have information about people's time paths throughout the day, when and where they talk with friends and family, and even random queries that go through their mind throughout the day (Andrejevic 2014). Furthermore, this information can be easily utilized, stored, and shared. The abundance of data collected by these large corporations allows them even more detailed information about our personal lives, and consequently, even more control and influence over our behaviors than traditional administrative surveillance. This new surveillance will have and have had long reaching consequences for human behavior. Following this section, I will examine

different definitions of surveillance and attempt to form a working definition drawing from surveillance's historical and modern uses.

Defining Surveillance

Different theorists have differing beliefs about what specifically surveillance is. Some theorists base it off of definition, and others base it off of theories of power, organization or globalization. Surveillance's French root defines it as simply "watching over people". However, Richard Jenkins (2014) makes the important distinction between watching over people passively and how modern surveillance has become targeted and purposeful. He argues that in order to be surveillance, the observation must be focused and purposed: surveillance is not an end in itself, it is a means to an end (Jenkins 2014). For the purpose of this paper, and to extend on Jenkins' definition, surveillance is about power, and in our modern context, control. The power dynamic of surveillance is not limited to government; in our current surveillance state, private surveillance is just as invasive, if not more invasive, than formal surveillance. Surveillance is more than the sum of its definitions, and in this section, I outline the uses of surveillance and compile them to make my own definition of surveillance that aims to encompass it in all its forms.

Some theorists define surveillance as synonymous with government (Weller 2014; Proudhon 1923). The purpose of government is to control and manage populations, which means that individuals are inherently subjected to inspection, classification, regulation, and appraisure, which cumulatively constitute control (Weller 2014). All of these aspects of government control are contingent on surveillance and the information it collects. Control is profitable in the government, even though it might not seem apparent at first glance. The government profits through population control, the success of domestic involvement in the worldwide economy, for profit prisons (Shichor 1995), and federal income based on bureaucratic systems (Zuboff 2015). A controlled population is a managed population, and border security, policing initiatives, and bureaucracy all benefit the government either in the form of system rationalization or profit (Andrejevic 2014; Jenkins 2014). Given this incentive to control populations, it becomes necessary to promote and expand the development and implementation of systems and technologies that can be used to control populations. This expansion largely comes in the form of government support for the growth of the private surveillance industry.

Surveillance, like many other industries, has been undergoing a system of privatization, where it has become an industry primarily dominated by privately held companies. The government, Big Brother, has enabled the growth of the private surveillance industry, creating "innumerable little brothers", in the form of private security, surveillance organizations and advertising corporations (McGrath 2014). Specifically, through the outsourcing of surveillance technology and systems, as well as the funding and incentives provided to private surveillance companies, the private surveillance economy grew from just $9 billion in 2003 to around $34 billion in 2008 (Turow and Draper 2014). The collusion of government and private industry does not just benefit the government, private commercial security agencies also symbiotically benefit from the reach allowed by federal contracting, facilitating what Ben Hayes (2014) calles the "surveillance-industrial complex". The surveillance-industrial complex goes further than allowing federal funds to facilitate a surveillance economy, it encompasses the multidimensional

relationship between the government and cooperations, which includes corporations' ability to influence government. It is the entrenched relationship of federal funds expanding the surveillance economy, the outsourcing of surveillance firms for public use, and the corporations' consequent growth of reach and power (Hayes 2014). An example of this private growth is Palantir, a corporation initially funded in 2004 by In-Q-Tel, the CIA's venture capital firm (Brayne 2014). Palantir now has customers in both the federal government and the private industry, including the FBI, CIA, LAPD, ICE, NYPD, NSA, and J.P Morgan (Brayne 2014).

But aside from these overtly-surveillance focused organizations, private growth has created a surveillance economy that centers around profit, whether in terms of control, advertisement or data collection. Private corporations have created business systems that directly profit from data, in the form of targeted advertising, information brokering and/or behavior prediction and control. This creates a system where organizations are endlessly incentivized to surveil in order to produce profit; and in this system, information becomes hugely profitable, leading to there never being an endpoint to surveillance (Andrejevic 2014). This distinguishes private surveillance from the bureaucratic systems of government surveillance, and actually allows for a lot more freedom in the private industry to accumulate and utilize information due to lack of regulation and accountability. There is no logical end to what amount of information is profitable, and corporations will continue to collect it until it is no longer profitable. It's not just mega corporations like Google, Microsoft and Facebook that are engaging in this form of surveillance, but also media-buying divisions (WPP, Havas), ad exchange companies (Doubleclick, AdECN), ad servers (DoubleClick, Atlas), data qualifiers (DoubleVerify), analytic specialists (Omniture, Coremerics), and research operations (comScore, Nielsen, Quantcast) (Turow and Draper 2014). Because all data is potentially valuable, development in data storage has allowed companies to collect more data than they need, and also to use that data to uncover different patterns of daily life and relationships to take advantage of. Surveillance also holds the potential to reify power through creatings systems of systematic profit. Large firms don't ask ahead of time for the viability and social impact their technology will have, they do it and will resolve it with a lawsuit or settlements if necessary (Zuboff 2015). As consumer watchdog for the New York Times puts it: "Google puts innovation ahead of everything and resists asking permission" (Zuboff 2015). Siva Vaihyanathan (2011) calls this "infrastructure imperialism", which makes it so that companies that profit wrongly are able to use that profit to circumvent social and legal repercussions. The dangers of surveillance have been under-considered, and it's often unknown how insidious its profiting mechanism is. Surveillance profits those who have the power, and those that have power will create a cyclical cycle to remain in power.

On the other hand, on a structural level, surveillance inevitably operates on a logic of classification based on collected information. Classification is present in bureaucracy, industry, and policing, simultaneously as a form of management and control. As part of the bureaucratic system, classification is the necessity to decide who is who, and who fits into what premise. Classification operates based on whether you do or do not meet the criteria for classification, and differential treatment will result from that classification. For example, in the US, the federal poverty threshold is $26,500 per year. Classification asks the question: do you make more than $26,500? If so, you are classified as "in poverty", and obtain resulting benefits, and if not, you are not considered eligible for said benefits. While seemingly logical, this form of classification

has become implemented in almost every form of organizational behavior, from bureaucratic government to organizational data analysis. When classification operates along biased or unequal criteria, it can allow differential treatment, systemic marginality, and ubiquitous surveillance to easily permeate into all of our systems and deeply impact our society. Torin Monahan (2017) calls this classification-based surveillance "marginalizing surveillance": which creates the belief that some "risky, dangerous, or untrustworthy" populations should be subject to enhanced surveillance and control. This goes on to reify identities of suspicion and legitimizes targeted surveillance of minorities. This is apparent through any number of statistics confirming differential policing, one of the most startling being that African Americans are seven times more likely than whites to be wrongly arrested and convicted of murder (Gross el al. 2017). Bowker and Starr's (2008) research shows that the consequences of classification mostly rest between rewards and punishments. Punishments are more well documented, such as racial profiling by the police, or lack of qualification for loans. Punishments expand to create systematic repercussions, such as defining which populations are lightly or heavily policed. Benefits are the opposite: positive repercussions of classification that affect a privileged classification, such as protective policing for wealthier communities. This classification does not stop at bureaucracy, but extends to the private sector. Big data corporations, such as Google and Facebook, have popularized and exploited this logic on the largest scale, but in the form of classification for advertisement or financial purposes. It is used to essentially differentially target different populations for different services or advertisements, leading to echo-chambers, unequal effects on particular populations, and social division (Andrejevic 2014). Classification has become a hallmark of modern surveillance, and has facilitated surveillance's rise to becoming directly profitable in the capitalist system.

While we have outlined some of the consequences of classification, we must also understand the necessity of the information collection processes that facilitate classification systems. Foucault (2009) observed that surveillance is wholly characteristic of modern society, where information accumulation becomes the dominant logic of all organizations, government or corporate. In 2014, James Rule went further in his analysis of bureaucracy and surveillance to argue that this institutional surveillance feeds on itself, leading to no upper limit of the information government and bureaucracy will want/need to collect. With the growth of technology and its development, there will always be new innovative ways of collecting information, and without appropriate regulation, this logic of accumulation (Zuboff 2020) will continue to facilitate the endless pursuit of personal data. The term "informatization" aptly describes this, characterizing the information collecting and assessing nature of modern organizations (Frissen and Snellen 1990). Information collection and control is contingent on surveillance systems, and while I believe that surveillance is characterized in part by the endless pursuit of information, it is not defined by it.

When considering who is being classified and surveilled, it becomes necessary to consider who is the surveiller, and who is the surveilled? Richard Jenkins (2014) argues that deciding "who's who" must be established before surveillance can reach its full value as intelligence. Drawing from the usage of surveillance as classification, he argues that the key problem with surveillance is that it denies the ability of self-identification. This classification occurs without any dialogue, or even awareness, between the watcher and the watched, and takes away the ability for individuals to create their own identity. Surveillance is becoming

increasingly one sided and this innately gives power to those who are surveilling over those who are surveilled. Drawing from Jenkins, I argue that in addition to the categorizing nature of surveillance, surveillance means that we are *preemptively* categorized into a power dynamic of the watcher and the watched. However, power comes in many different forms, whether that is capitalist, social or administrative power, and it extends throughout many different systems.

Defining a working definition surveillance is no easy task; it resists dictionary definition through its long reaching implications and multipurpose nature. Drawing from Richard Jenkins' (2014) conceptualization of surveillance being characterized by the power surveillance systems have over surveilled populations, I define surveillance as the targeted observation of a population with less power (economic, social and cultural) than the observer. This definition allows us to:

> a) acknowledge the usage of surveillance by both government and private entities, and allows for the application of the definition to remain relevant to surveillance as it expands on a global scale,

> b) allow for classification to be a primary purpose of surveillance, because the power to define and classify is an essential aspect of surveillance,

> c) acknowledge the power dynamic behind surveillance and its consequent effects on marginalized populations,

> d) and allow for the unchecked accumulation of information to be considered surveillance. While this form of surveillance is impersonal and removed, it still is targeted towards people who do not know they are being surveilled in exchange for capital, whether in the form of influencing their decisions, or collecting their information for profit.

Surveillance is large and far reaching, and requires an equally broad and complex definition. However, the central point of surveillance throughout history and into the modern era has always been power and control.

Beliefs and Ideology

Aside from the systems and processes that enable surveillance's expansion, there is the question of how big data surveillance has been so enthusiastically embraced in our society, culture, and organizational structures. In addition to the necessity of technology that can inexpensively and easily monitor large populations, surveillance needed an ideology that could support its expansion into ubiquity. The widespread embracement of this technology can be attributed to two different theoretical perspectives: the technical/rational perspective and the institutional perspective (Brayne 2014). The technical/rational perspective aims to show that big data surveillance came from an organizational desire to improve efficiency, prediction, profit, and organization (Brayne 2014). In the previous sections, we've primarily examined the technical/rational perspective of surveillance, from exploring its operating systems to how it's been developed. We've explored less of the second, the institutional perspective, which argues that the rise of surveillance and surveillance technologies aren't necessarily just a rational development, but the result of wider societal beliefs around security and surveillance. In this section, we will utilize this institutional perspective to explore what larger cultural and societal

beliefs we have around security, surveillance, and modernity, and how that has facilitated the growth of surveillance.

But before we consider what beliefs make us invested in surveillance, we need to think about some general theories of law and the purpose of government. Here, I will outline three significant ones. First, John Stuart Mill, the famous philosopher and social reformer, argues for the "Harm Principle"; that it is only acceptable to "interfere with liberty" on the basis of preventing harm to others (Mill 2011). This belief is fairly apparent in the dialogues we have around surveillance and security, that surveillance is necessary for safety and the control of deviant behavior. Additionally, this belief allows us to rationalize surveillance and allow for it to interfere with privacy and liberty under the guise of societal protection. Secondly, Gerold Dworkin's paternalism argues that the role of government is to be like a "father" to the nation, whose role is to protect and guide the people (Dworkin 1972). Similar to Mill's Harm Principle, paternalism assumes that it's necessary for populations to be protected, but also extends the necessity of government to the *management* of populations. We've largely accepted management as a pillar of government, and identification, classification, and exclusion are all byproducts of that. Finally, moralism, which was popularized in 19th century America, argues that the government's purpose is to protect societies' shared values. Interestingly, Lenin (1917) noted around the same time in *Imperialism* how the "proper" role of government was to frame conditions and public sentiment to prime citizens to accept the systems of global capitalism and control. Similarly, Durkheim (1993) also found that crime and the ritual punishment of crime reinforces societal norms and promotes social cohesion. Surveillance is an extension of this belief, allowing surveilling institutions to dictate what is considered deviant behavior, as well as reinforce dominant beliefs and values. Theories such as these pertaining to the government can guide analysis on how we accept surveillance in our society.

Aside from beliefs we hold about the purpose of government, central to the surveillance discussion is the concept of security and the role of surveillance in its practice. Security is thrown around as many things, a priority, reason, ideology, or as a concept. So much so, in fact, that Ben Hayes (2014) argues that it's a political "weasel word, so ubiquitous that it defies full comprehension, so reified that it appears beyond criticism". The definition of security has extended to contain the full scope of any government apparatus that could possibly prevent something bad from happening, such as counter terrorism initiatives, policing, bureaucratic regulation, or crisis management (Hayes 2014). Even other aspects of public policy, including food, energy, transportation, and information technology, which have all been "securitized" into new conceptualizations of food security, energy security, and information security, which all change how social opinion and policy makers address these issues (Hayes 2014).

While the conceptualization of security has been expanding in scope, crime has always been the focal point of security. Fear of crime, terrorism, the "other", etc, has led to a growing acceptance of security technologies and surveillance. There is a belief that these new surveillance and military technologies can keep us safer, deter crime, and catch criminals. Giorgio Agamben's (2005) research shows how our beliefs about security become implemented and reified into policy and policing strategy; and that behind these beliefs is a systematic ideology, one that perpetuates beliefs about security throughout the wider population and thus into our political and policing systems. Annette Beresford (2004) goes further to claim that "homeland security" is one of such ideologies, as opposed to a neutral set of policies. As a

unique set of American beliefs, such as securitization and preoccupation with crime prevention, the ideology of homeland security impacts social perspective, policy, as well as provides certainty towards our commitments and decision-making process post 9/11 (Beresford 2004). The development of the Department of Homeland Security and its consequent offshoots, according to Beresford, was not only to bureaucratize the system of security, but to provide legitimacy around the concept of security itself. This ideology, she argues, ends up shutting alternative ideology down, leading to the security-driven expansion of state and military programs that does not necessarily end up bettering quality of life or other desirable effects (Beresford 2004). This ideology has spread to American foreign policy and global strategy. An aspect of U.S global strategy extends to the expansion of the worldwide security apparatus, utilizing surveillance and identification to further what Kelly Gates (2014) calls a "USA-centric politics of inclusion and exclusion on a global scale". The USA has created a seemingly endless world-wide war on terror, allowing the well-funded, previously mentioned security-industrial complex to grow, as well as to perpetuate the ideology of homeland security. This ideology has been exported around the world under the guise of "international cooperation", spreading the belief that surveillance is necessary for life in our modern world (Wood 2014).

Aside from the international expansion of surveillance, predictive policing is another form of surveillance we readily accept into our lives under the pretense of security and protection from crime. Digitizing surveillance seems to hold the potential to take human error out of the policing system, while simultaneously reducing bias and increasing efficiency. However, they also have the unprecedented ability to, as Sarah Brayne puts it, "to technologically reify bias and deepen existing patterns of inequality" (Brayne 2014). The potential for removing bias through data-based preventative policing operates under the assumption that the technology created are not created by systems that have inequality and discrimination pre-built into their behavior. Brayne, in her research with the LAPD, showed that these information-based systems of policing were actually just as, if not more, biased than the older inter-personal policing model. Individuals are immediately entered into the police information system as they come into contact with the justice system, even if they were simply looked up by police agencies. Selecting individuals to be entered into policing databases can reify racial repression through the disproportionate amounts of law enforcement contact with communities of color. Surveillance programs generate "suspicious populations", which are drawn from data analysis platforms to single out people who the authorities and officers have deemed risky or of interest for additional surveillance (Haggerty 2014). These are usually overwhelmingly minority populations, because they reflect pre-existing bias. For example, data shows that Black Americans are 63% more likely to be stopped by police than White Americans, consequently misrepresenting this population in police query databases. Other data is consistent that these stops are largely prejudiced, as Black Americans constitute 47% of innocent defendants wrongfully convicted of crimes and later exonerated (Pierson 2020; Gross et al. 2017; Baumgartner et al. 2018). This is just one example of how racial bias and marginalization can be continuously perpetuated through these seemingly innocuous surveillance practices.

Convenience is another belief that we have subscribed to in order to rationalize surveillance. The convenience of big data is that it can predict behavior. This prediction can lead to personalized feeds, already pulled up map instructions, predictive smart homes, and auto-

play our favorite music. We have created spaces that recognize us wherever we go, facilitating easy ways to identify needs, wants and desires. Our technology can easily recognize us, respond to our questions, identify our voices, and help us throughout our day. This allows for convenience, assistance, and efficiency, but also allows for high potential for oppression. There is a belief that automation and data analytics are harmless and can only aid us in our daily lives, one that stems from the convenience and ubiquity of smart technologies. However, like before mentioned the nature of prediction and classification shows a different story. Classification inherently sorts individuals and necessitates differential treatment and surveillance, distributing benefits and punishments to different populations (Bowker and Starr 2008; Browne 2014). Most victims are individuals who are from marginalized populations or experiment with deviant behavior. In a system of identification, there will always be those who are identified as deviant and their behavior surveilled, connections identified, leading us to consider the ideology behind modernity and bureaucracy.

Convenience is simply an aspect of modernity, and entrenched in the surveillance debate is the political and social rhetoric that wants us to believe that surveillance is a defining characteristic of modernity itself; a rational product of industrialization and the rise of urbanization (Weller 2014). James Scott's book, *Seeing Like a State* (2020), contends that the beginnings of twentieth-century attempts of government to manage populations subscribed to the ideology of "high modernism", which legitimized the security apparatus through the belief in the "rational design of social order" (Weller 2014). Surveillance has consequently become (and been enabled by) a system of practical norms and beliefs, normalized and institutionalized in our wider society. In the last twenty years, there has been a general acceptance of systematic identification and surveillance, presumably as the natural progression of technology and modern life. This leads to what Turow and Draper (2014) would call "the cultivation of digital resignation". They argue that through the subtle and insidious surveillance creep, we have come to equate surveillance as a function of modern life, whether in the form of targeted advertisements, personal feeds, or data driven policing.

In previous sections, we've considered the role of bureaucracy heavily in regards to its perpetuation of surveillance and classification. As an ideology, however, we've discussed less of. In general, bureaucracy is associated as a byproduct of modernity. Sprawling airports, crowded train stations, mass transportation systems, and complex cities all seem to necessitate micromanagement in the form of systemization and bureaucracy (Jenkins 2014). The seemingly "rational" response to this new modern condition are increases in preventative and remote policing, such as CCTV, which has been exacerbated by population growth, a growing security economy, and political and cultural ideologies centering around security and crime (Jenkins 2014). The central argument behind this growth is that it's more efficient and profitable to implement these bureaucratic surveillance systems over large, disparate populations. These systems are also easily accessible, simple to use, and have the ability to intersect with other agencies and data. However, these developments are not necessarily just of rational design, but they also serve to perpetuate surveillance systems that are beneficial and profitable to the government in the form of management and control, in addition to expanding the private surveillance industry through government collaboration and outsourcing. These new e-government processes begin to change the essential services and nature of these systems, allowing data to be easily disseminated, identity to be increasingly verified, and completely

altering the culture and norms related to bureaucracy (Lyon 2012). This significantly changes how we accept the control of our identity by government. It's become widely accepted for governments to use and demand information to create huge information systems and databases, and for those systems to be entrenched in our day-to-day administrative life, such as creating a bank account, applying for a home/apartment, buying a phone, and essentially all essential aspects of modernity (Webster 2014). Thus, individuals become accustomed for their identities to be dependent on government administration, and this further develops a willingness for individuals to accept their personal information being entrenched in information systems, as well as the usage of that information by both the government and private industries (Webster 2014). This makes surveillance the norm for both the surveilled and surveyor, enabling this to be an essential aspect of bureaucracy and modernity.

One of the most prominent consequences of the development of bureaucratic surveillance is what Sarah Brayne (2014) calls "system avoidance". In her 2014 article, Brayne shows how criminal or threatened populations systematically abstain from involvement in institutional programs such as banking, hospitalization, and formal education for fear of heightened surveillance or detection (Brayne 2014). Her research demonstrates that individuals who are involved in the criminal justice system engage in systematically avoiding formal healthcare, financial, educational and labor institutions that keep formal records. Consequently, lack of education, medical care, bank access and/or employment are heavily associated with poorer outcomes for health, financial security, upward mobility and reservation from crime (Brayne 2014). Similarly, in Alice Goffman's ethnographic work, On the Run: Wanted Men in a Philadelphia Ghetto, she shows how marginalized men systematically avoid formal institutions, forgoing welfare, international travel, formal work and healthcare (Goffman 2009). This is just one example of how surveillance can perpetuate marginality, through both technological processes and non-overtly technological.

Conclusion

In this paper, I have shown that development of surveillance has been largely contingent on four things: historical circumstances, technological development, the growth of private surveillance industries, and widespread beliefs about security, convenience, and modernity.

I have explored these events and ideologies through the lens of two theoretical frameworks regarding surveillance. We first explored the technical/rational perspective, inspecting what systems have enabled surveillance, what is surveillance, and the economic incentive to control and surveil populations. Secondly, we've explored the institutional perspective, which asks us what cultural and wider societal beliefs allow us to be surveilled. Through examining these processes that facilitate surveillance's development, we can see how surveillance systems impact and interact with our pre-existing systems of capitalism, bureaucracy, and crime prevention.

Citations

Agamben, Giorgio. 2005. "The State of Exception." Pp. 284–98 in *Politics, Metaphysics, and Death: Essays on Giorgio Agamben's Homo Sace*, edited by A. Norris. New York: Duke University Press.

Andrejevic, Mark. 2014. "Ubiquitous Surveillance." Pp. 91–98 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Baumgartner, Frank R., Derek A. Epp, and Kelsey Shoub. 2018. *Suspect Citizens. What 20 Million Traffic Stops Tell Us about Policing and Race*. Cambridge: Cambridge University Press.

Beniger, James R. 2009. *The Control Revolution: Technological and Economic Origins of the Information Society*. Cambridge, Mass: Harvard University Press.

Berda, Yael. 2013. "Managing Dangerous Populations: Colonial Legacies of Security and Surveillance." *Sociological Forum* 28(3):627–30.

Beresford, Annette D. 2004. "Homeland Security as an American Ideology: Implications for U.S. Policy and Action." *Journal of Homeland Security and Emergency Management* 1(3).

Bowker, Geoffrey C. and Susan Leigh Star. 2008. *Sorting Things out: Classification and Its Consequences*. Cambridge, MA: MIT Press.

Brayne, Sarah. 2014. "Surveillance and System Avoidance." *American Sociological Review* 79(3):367–91.

Brayne, S. (2017). Big Data Surveillance: The case of policing. *American Sociological Review*, *82*(5), 977–1008. https://doi.org/10.1177/0003122417725865

Browne, Simmone. 2014. "Race and Surveillance." Pp. 72–80 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Durkheim, Emile. 1933. The Division of Labor in Society, translated by George Simpson. New York: Free Press.

Dworkin, Gerald. 1972. "Paternalism." *The Monist* 56:64–84. Retrieved November 29, 2021 (https://www.jstor.org/stable/27902250?casa_token=3F084ifeVkwAAAAA%3AU3ee7qJ_g PExcXJ_PitOJe9ewPpvuaFMPLpFraxLLuGCN5TW1Cf3INUz3koYtTGvqqVZaW2RR9uVe5sYjq W055bu6C1MYmuQMM8i5ztBU9UmNGMcDgc&seq=1#metadata_info_tab_contents).

Foucault, Michel. 2009. Security, Territory, Population: Lectures at the College de France 1977-1978. London: Picador

Frissen, P. and Snellen, I. (1990). Informatisation Strategies in Public Administration, Amsterdam: Elsevier.

Galantonu, Dumitrina. 2016. "The Big Brother Fear: Four Perspectives on Surveillance." *American Intelligence Journal* 33(1):59–64. Retrieved (https://www.jstor.org/stable/26202166?seq=1#metadata_info_tab_contents).

Gates, Kelly. 2014. "The Globalization of Homeland Security." Pp. 292–300 in *Routledge Handbook of Surveillance Studies*, edited by K. D. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Gross, Samuel R., Maurice Possley, and Klara Stephens. 2017. "Race and Wrongful Convictions in the United States." *NATIONAL REGISTRY OF EXONERATIONS*.

Haggerty, Kevin D. 2014. "Surveillance, Crime and the Police." Pp. 235–43 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball and D. Lyon. London: Routledge.

Hayes, Ben. 2014. "The Surveillance-Industrial Complex." Pp. 167–76 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Jenkins, Richard. 2014. "Identity, Surveillance and Modernity: Sorting out Who's Who." Pp. 159–66 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Lenin, Vladimir. 1917. *Imperialism, the Highest Stage of Capitalism*. Petrograd: Zhizn i Znaniye (Life and Knowledge) Publishers.

Lyon, David, Kevin D. Haggerty, and Kristie Ball. 2014. "Introducing Surveillance Studies." Pp. 1–12 in *Routledge Handbook of Surveillance Studies*. London: Routledge.

Lyon, David. 2012. *Surveillance Studies: An Overview*. Cambridge: Polity Press.

Major, Andrew J. 1999. "State and Criminal Tribes in Colonial Punjab: Surveillance, Control and Reclamation of the 'Dangerous Classes.'" Modern Asian Studies 33(3):657–88.

McGrath, John. 2014. "Performing Surveillance." Pp. 83–90 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Merrill, Jeremy B. and Will Oremus. 2021. "Five Points for Anger, One for a 'like': How Facebook's Formula Fostered Rage and Misinformation." *The Washington Post*, October 26.

Mill, John Stuart. 2011. "On Liberty." *The Project Gutenberg EBook of On Liberty, by John Stuart Mill.* Retrieved November 29, 2021 (https://www.gutenberg.org/files/34901/34901-h/34901-h.htm).

Monahan, Torin. 2017. "Regulating Belonging: Surveillance, Inequality, and the Cultural Production of Abjection." *Journal of Cultural Economy* 10(2):191–206.

Norris, Clive. 2014. "The Success of Failure: Accounting for the Global Growth of CCTV." Pp. 251–59 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Pierson, Emma et al. 2020. "A Large-Scale Analysis of Racial Disparities in Police Stops across the United States." *Nature Human Behavior* 4(7):736–45.

Proudhon, P.-J. (1923). General Idea of the Revolution in the Nineteenth Century, translated by John Beverly Robinson, London: Freedom Press

Sa'di, Ahmad H. 2014. "Colonialism and Surveillance." Pp. 151–58 in *Routledge Handbook of Surveillance Studies*, edited by K. D. Haggerty, D. Lyon, and K. Ball. London: Routledge.

Scott, James C. 2020. *Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press.

Shichor, D. 1995. "Punishment for Profit: Private Prisons/Public Concerns." *US Department of Justice: Office of Justice Forums*. Retrieved November 30, 2021 (https://www.ojp.gov/ncjrs/virtual-library/abstracts/punishment-profit-private-prisonspublic-concerns).

Turow, Joseph and Nora Draper. 2014. "Advertising's New Surveillance Ecosystem." Pp. 133–40 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Vaidhyanathan, Siva. 2011. *Googlization of Everything (And Why We Should Worry)*. 1st ed. Berkeley, CA: University of California Press.

Webster, William R. 2014. "Public Administration as Surveillance." Pp. 313–20 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Weller, Toni. 2014. "The Information State: A Historical Perspective on Surveillance." Pp. 57–63 in *Routledge Handbook of Surveillance Studies*, edited by K. D. Haggerty, D. Lyon, and K. Ball. London: Routledge.

Wood, David Murakami. 2014. "Globalization and Surveillance." Pp. 333–42 in *Routledge Handbook of Surveillance Studies*, edited by K. Ball, K. D. Haggerty, and D. Lyon. London: Routledge.

Zuboff, Shoshana. 2015. "Big Other: Surveillance Capitalism and the Prospects of an Information Civilization." *Journal of Information Technology* 30(1):75–89.

Zuboff, Shoshana. 2020. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: PublicAffairs.