
Political Economy and Surveillance Theory

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Abstract

The task of this article is to help in the grounding of foundations for relating surveillance studies to Marxian categories. Existing theories of surveillance have thus far not been linked systematically to Marx's works. The contribution of this article is that it discusses the relation of the Marxian concept of the cycle of accumulation and the notion of surveillance. It is shown that for Karl Marx surveillance was a fundamental aspect of the capitalist economy and the modern nation state. Surveillance is an integral negative and antagonistic feature of capitalist society. The Marxian concept of the cycle of capital accumulation allows for systematically distinguishing six forms of economic surveillance: applicant surveillance, workplace surveillance, workforce surveillance, property surveillance, consumer surveillance, and surveillance of competition. The notion of accumulation is suitable for establishing a general critical understanding of surveillance.

Keywords

surveillance, surveillance studies, surveillance society, Karl Marx, capitalism, cycle of capital accumulation, critique of the political economy, critical theory

Introduction

Recently, public and academic discourse has witnessed an increasing interest in the works of Karl Marx. So for example, after the beginning of the financial crisis, *Time Magazine Europe* (2 February 2009) put Marx on its cover and asked: 'What would Marx think?' The social sciences also saw a significant increase in works focused on Marxian concepts. Whereas there were 73 articles published in 2007 that contained the word Marx in their title and are indexed in *Scopus Social Sciences and Humanities*, there were 91 in 2008, 139 in 2009 and 194 in 2010 (*Scopus Social Sciences and Humanities*, consulted on 18 March 2010). This circumstance is an indicator of rising interest in Marxian approaches in the social sciences. One of the reasons for this surging interest is the new global crisis of capitalism and the search for alternatives.

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For some critical scholars, we are living in new Marxian times (Eagleton, 2011; Harvey, 2010a, 2010b; Hobsbawm, 2011; Jameson, 2011; Therborn, 2008; Žižek, 2008). Contemporary society has seen the rise of increasing state surveillance after 9/11, consumer surveillance on the internet (for example, Facebook and Google), CCTV as a ubiquitous phenomenon or lateral surveillance as a mode of entertainment and popular culture (Big Brother and other reality TV shows that operate based on the principle of constant monitoring, location-based services on mobile phones and in cars, webcam-based video chats, 24-hour live transmission via webcams, etc.). There has been an extension and intensification of surveillance in the economy, the political system and everyday life.

If we are indeed witnessing new Marxian times, then it makes sense to ask if Marx's concept of capital accumulation can be systematically connected to the analysis of surveillance. The analysis presented in this article operates on a meta-level. Its task is not to analyse single surveillance phenomena with the help of Marxian analysis, but to help establish foundations for connecting the general notion of surveillance to Marxian categories. This task is conducted in four steps. First, the role of Marx in selected surveillance studies approaches is discussed. This discussion is necessarily exemplary and incomplete, but nonetheless allows some conclusions to be drawn by focusing on key thinkers. Second, how Marx utilised the surveillance concept is shown. Third, the Marxian cycle of capital accumulation is introduced. Fourth, a typology of forms of economic surveillance is discussed. Finally, some conclusions are drawn.

The Role of Karl Marx in Surveillance Studies

The study of surveillance has gained momentum in academic debates in the past two decades. Some scholars argue that we have witnessed the rise of surveillance studies as a distinct field of interdisciplinary analysis (Hier and Greenberg, 2007; Lyon, 2007; Zurawski, 2007). We can distinguish five different forms of thinking about Marx and surveillance, which differ in the relevance they assign to Marx's thinking around the phenomenon of surveillance. On the one hand, there are approaches that say that Marx ignored surveillance and that his theory cannot be adequately connected to the concept of surveillance. On the other hand, we find approaches towards surveillance that are Marxist in character.

First, there are approaches that claim that Marx ignored the phenomenon of surveillance in his theory and thereby reduced modern society to its class structure. Anthony Giddens (1985: 2), the most prominent representative of this view, argues that surveillance and control of the means of violence are 'phenomena that largely escape the purview of the most influential schools of social theory, including Marxism, both in the nineteenth century and today'. Giddens (1985: 2) says that surveillance has an influence on the development of modernity that is independent from capitalism and class conflict and concludes that 'critical theory must come to terms with those aspects of modern institutions associated with surveillance as a medium of power' (Giddens, 1985: 341).

Second, there are approaches that come from a critical tradition, but underestimate the role of the capitalist economy in the exercise of surveillance and disciplinary power. Michel Foucault (1977: 175) quoted Marx in stressing that surveillance has become 'a decisive economic operator both as an internal part of the production machinery and as a specific mechanism in the disciplinary power' (Foucault, 1977: 175). In Foucault's main surveillance study, *Discipline and Punish*, the focus is on crime and imprisonment; the topic of economic surveillance is only touched upon cursorily. Foucault overlooks the fact that in capitalism, psychiatry, prisons, schools and other disciplinary milieus do not exist independently, but in relation to labour and capital. Furthermore, the workplace is a disciplinary milieu of crucial importance.

Third, there are approaches that acknowledge the importance of Marx, in addition to Weber, Foucault and others, for conceptualizing surveillance. Oscar H. Gandy (1993: 3–13) argues that a political economy of surveillance requires multiple theoretical perspectives: the theories of Jacques Ellul, Karl Marx, Max Weber, Michel Foucault and Anthony Giddens. Gandy (1993: 5) acknowledges the importance of ‘Marx’s labor theory of value and through that his explication of the core concept of surplus value and capitalist exploitation’ for a political economy of personal information. He shows how corporations monitor and assess personal information of consumers for the purpose of discriminating between them to advance advertising and marketing for the accumulation of capital. He speaks in this context of the panoptic sort. However, the notion of the panoptic sort has yet to be systematically connected to Marxian categories, such as surplus value, class, rate of surplus value or exploitation.

For David Lyon (1994: 7, 34; see also 25), the importance of Marx for conceptualizing economic surveillance is that:

Karl Marx focuses special attention on surveillance as an aspect of the struggle between labour and capital. Overseeing and monitoring workers is viewed here as a means of maintaining managerial control on behalf of capital [...] Marx observed how control was maintained through the enclosed space of the factory.

Lyon characterizes Marxian surveillance concepts as modern because they rely on ‘nation-state, bureaucracy, technologic, and political economy’. Postmodern surveillance approaches focus on how ‘digital technologies “make a difference”’ (Lyon, 2006: 10). Lyon argues that Marxian theory cannot ‘account adequately for surveillance’, yet offers ‘helpful insights’ (Lyon, 2001: 9). He acknowledges the importance of Marx’s attempt, but also stresses the importance of Weber and Foucault for theorizing surveillance (Lyon, 1994: 35ff; Lyon, 2001: 118). Lyon has created an influential and important critical theory of surveillance, but his work does not show how Marx’s work can be explicitly used for theorizing surveillance in a way that is indebted to Marx and at the same time goes beyond him.

One gets the impression that many contemporary surveillance approaches have gone too far beyond Marx. I do agree that Marx alone cannot explain the complex role of surveillance in contemporary society; however, as I will show, Marx not only commented on economic surveillance, but also on political surveillance. It is not sufficient to construct a multidimensional analysis that stresses the importance of Marx, Weber and Foucault. The question is how the concepts of these theorists can best be related. A pluralistic theory risks plurality without unity. Marx’s notion of accumulation as a central process of contemporary society plays an important role in unifying different approaches because modern society is based on the competition between actors in accumulating ever more money capital, political power and ideological power, and controlling the resulting resources. Marx is therefore not only important as a critical theorist of capitalism, but also in a more general sense because he has pointed out a general law of movement of modern society originating in the capitalist economy that shapes all subsystems of society so that relatively autonomous subsystems have emerged that are based on the logic of accumulation. That is, modern surveillance is a competitive and instrumental process oriented toward accumulating money, power and hegemony.

Fourth, there are Marxist approaches that elaborate upon workforce control, and that are relevant for surveillance studies, but do not use the notion of surveillance in this context. Harry Braverman’s (1974) analysis of the organization of work processes in capitalism is thoroughly grounded in Marx’s writings. Braverman (1974: 69) shows that the assembly line, management, Taylorism, mechanization, automation and computerization have functioned as means for

destroying workers' control in the production process and establishing capital's 'control and dictation of each step of the process'. Braverman operates with concepts such as control and deskilling, whereas he mentions the notion of surveillance only once in the book in a quotation by Thorsten Veblen (see: Braverman, 1974: 185). Therefore, Braverman's approach cannot be considered as being a theory of surveillance.

Fifth, there are critical approaches that make implicit or explicit usage of Marxian concepts such as exploitation, class, fetishism, ideology critique, or culture industry. Examples are the works by Mathiesen (1997, 2004), Andrejevic (2002, 2007, 2009), Robins and Webster (1999) and Ogura (2006). Thomas Mathiesen (1997, 2004) shows that physical violence and ideological violence are combined in order to silence opposition within capitalism. He speaks in this context of the synopticon. Mark Andrejevic has argued that consumers who are surveilled in contemporary media systems are exploited by capital. He has in this context coined notions such as the work of being watched (Andrejevic, 2002), the virtual enclosure (Andrejevic, 2007), or exploitation 2.0 (Andrejevic, 2009). Kevin Robins and Frank Webster (1999) build on Marx's notion of commodity fetishism to construct the concept of technology fetishism (Robins and Webster, 1999: 50–52) that is used as background for conceptualizing contemporary surveillance.

Toshimaru Ogura (2006) argues that there are five roles of surveillance in capitalism:

- 1) workplace surveillance,
- 2) population management,
- 3) control of the human mind,
- 4) consumer surveillance, and
- 5) computerized surveillance.

The importance of Marx's works for conceptualizing surveillance has thus far not been adequately discussed. No one has as yet elaborated on how he thought about surveillance and how we can systematically connect the notion of surveillance to Marx's notion of capital accumulation. The following sections will contribute to filling this gap. My aim is not to argue that Marx is the only theorist relevant for conceptualizing surveillance or that Marxian analysis alone is able to explain all complexities of surveillance, but rather to suggest that there is much more in Marx than surveillance scholars have thought thus far and that it is worth systematically engaging with Marxian works in order to connect them to the notion of surveillance. There are too many prejudices against Marx today and too many people who, without reading Marx's works, make biased judgements (Eagleton, 2011).

First, we will take a look at what Marx wrote about surveillance in order to find out whether or not Giddens's claim that Marx ignored surveillance is right.

Karl Marx on Surveillance

For Karl Marx, surveillance is a fundamental aspect of the capitalist economy and the modern nation state. 'The work of directing, superintending and adjusting becomes one of the functions of capital, from the moment that the labour under capital's control becomes co-operative. As a specific function of capital, the directing function acquires its own specific characteristics' (Marx, 1867: 449). Marx argues that the supervision of labour in the production process is 'purely despotic' (1867: 450) and that the capitalist does not directly exert this despotism. 'He hands over the work of direct and constant supervision of the individual workers and groups of workers to a special kind of wage-labourer. An industrial army of workers under the command of a capitalist requires, like a real army, officers (managers) and NCOs (foremen, overseers),

who command during the labour process in the name of capital. The work of supervision becomes their established and exclusive function' (1867: 450).

But surveillance is not only an economic concept for Marx. He also points out political dimensions. He shows that in the USA, population growth in the 19th century resulted in the surveillance of states and regions (MEW, 1956–1968, Vol. 7: 434) and points out that nation states engage in the surveillance of passenger traffic (MEW, 1956–1968, Vol. 6: 127), the surveillance of the execution of laws (MEW, 1956–1968, Vol. 19: 30), spying (MEW, 1956–1968, Vol. 8: 437) or police surveillance (MEW, 1956–1968, Vol. 2: 78; Vol. 7: 313; Vol. 9: 511; Vol. 17: 401; Vol. 18: 387). Like Foucault, Marx talks about disciplinary surveillance power by saying that the state 'enmeshes, controls, regulates, superintends and tutors civil society from its most comprehensive manifestations of life down to its most insignificant stirrings' (Marx and Engels, 1968: 123). Marx also uses the notion of surveillance in the sense of counter-surveillance (watching the watchers) when he says that 'the press not only has the right, it has the duty, to keep the strictest eye on the gentlemen representatives of the people' (Marx, 1974: 116).

Although Giddens (1985) claimed that Marx ignored the topic of surveillance, these quotations show that Marx considers surveillance as a process that shapes modern society. Surveillance is, for Marx, on the one hand a coercive and technological method for controlling and disciplining workers, but he did not (as claimed by some surveillance scholars) reduce the concept to an economic meaning. Rather Marx on the other hand also sees the role of surveillance as a political process of domination and political and cultural potentials for counter-surveillance, i.e. processes of watching the dominative watchers that allow counter-power to be exerted in political struggles. Marx sees the economy and politics as the two main interconnected surveillance spheres. This idea is reflected in contemporary approaches that analyse the political economy of surveillance. Toshimaru Ogura (2006: 272) argues, for example, that 'the common characteristics of surveillance are the management of population based on capitalism and the nation state'. Gandy (1993: 95) says that the 'panoptic sort is a technology that has been designed and is being continually revised to serve the interests of decision makers within the government and the corporate bureaucracies'.

It is impossible to give a full interpretation of the relevance of Marx for conceptualizing contemporary surveillance in a short article. What can be done is to start the analysis in the economic sphere because Marx's notion of accumulation stems from economic analysis, although it can be generalized for other subsystems of society. So what will follow in the two subsequent sections is an expansion on the argument that especially the Marxian cycle of capital accumulation (that was elaborated upon in the three volumes of *Capital*) allows us to systematically understand economic surveillance. This requires introducing the concept of the cycle of capital accumulation.

The Cycle of Capital Accumulation

In the three volumes of *Capital*, Marx analyses the accumulation process of capital. This process, as described by Marx, is visualized in Figure 1.

In the accumulation of capital, capitalists buy labour power and means of production (raw materials, technologies, etc.) in order to produce new commodities that are sold with the expectation of making money profit that is partly reinvested. Marx distinguishes two spheres of capital accumulation: the circulation sphere and the sphere of production. In the circulation sphere, capital transforms its value form: first money M is transformed into commodities (from the standpoint of the capitalist as buyer), the capitalist purchases the commodities labour power L and means of production M_p . $M-C$ is based on the two purchases $M-L$ and $M-M_p$. In capitalism, labour power is separated from the means of production, 'the mass of the people, the workers ... come face to face with the non-workers, the former as non-owners, the latter as the owners, of these means of

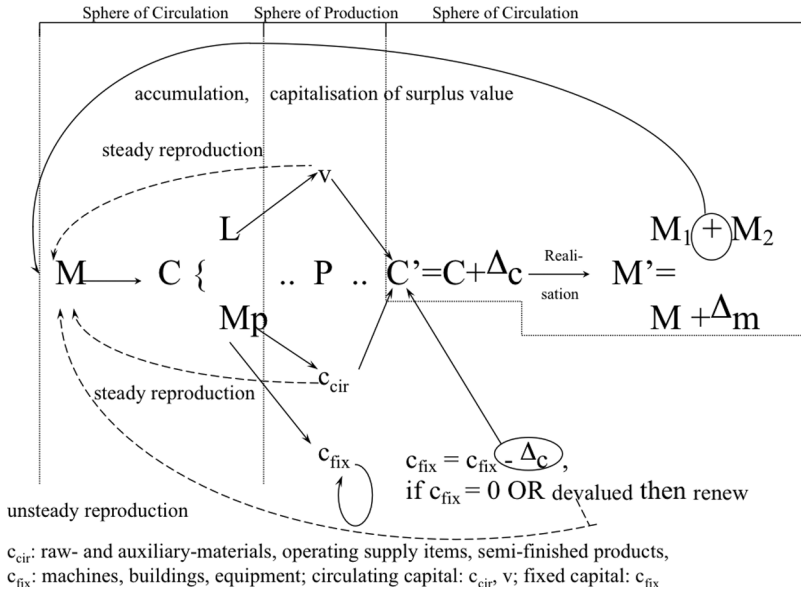


Figure I. The accumulation/expanded reproduction of capital

production' (Marx, 1885: 116). This means that due to private property structures, workers do not own the means of production, the products they produce or the profit they generate. Capitalists own these resources.

In the sphere of production, a new commodity C' is produced: the value of labour power and the value of the means of production are added to the product. Value takes on the form of productive capital P . The value form of labour is variable capital v (which can be observed as wages), the value form of the means of production constant capital c (which can be observed as the total price of the means of production/producer goods).

Constant capital consists of two parts: circulating constant capital c_{cir} (the value of the utilized raw materials, auxiliary materials, operating supply items and semi-finished products) and fixed constant capital c_{fix} (the value of the utilized machines, buildings and equipment) (Marx, 1885: chapter 8). c_{cir} and v together form circulating capital: they transfuse their value totally to the product and must be constantly renewed. c_{fix} remains fixed in the production process for many turnovers of capital.

Fixed constant capital decreases in value in each turnover of capital. Its value is decreased by the amount of Δc , which is a flexible value. Fixed constant capital like machinery does not create value and its value is never entirely transfused to capital at once. It is depreciated by wear and tear, non-usage and moral depreciation (i.e. the emergence of new machinery with increased productivity). In the sphere of production, capital stops its metamorphosis so that capital circulation comes to a halt. New value V' of the commodity is produced. V' contains the value of the necessary constant and variable capital and surplus value Δs of the surplus product. Surplus value is generated by unpaid labour. Capitalists do not pay for the production of surplus value, therefore it can be considered as a process of exploitation. The value V' of the new commodity after production is $V' = c + v + s$. The commodity then leaves the sphere of production and again enters the circulation sphere, in which capital conducts its next metamorphosis: by being sold on the market it is transformed from commodity form back into money form. Surplus value is realized in the form of

money value. The initial money capital M now takes on the form $M' = M + \Delta m$; it has been increased by an increment Δm . Accumulation of capital means that the produced surplus value is (partly) reinvested/capitalized. The end point of one process M' becomes the starting point of a new accumulation process. One part of $M' - M_1$ is reinvested. Accumulation means the aggregation of capital by investment and exploitation in the capital circuit $M-C .P. .C'-M'$, in which the end product M' becomes a new starting point M . The total process makes up the dynamic character of capital: money capital is permanently increasing due to the exploitation of labour in order to increase surplus value.

For Marx, capitalism is based on the permanent theft of unpaid labour from workers by capitalists. This is the reason why he characterizes capital as a vampire: 'Capital is dead labour which, vampire-like, lives only by sucking living labour, and lives the more, the more labour it sucks' (Marx, 1867: 342). The production of surplus value 'forms the specific content and purpose of capitalist production' (Marx, 1867: 411), it is 'the *differentia specifica* of capitalist production', 'the absolute law of this mode of production' (Marx, 1867: 769), the 'driving force and the final result of the capitalist process of production' (Marx, 1867: 976). The production and exploitation of labour to create surplus value is, according to Marx, the heart of the class structure in capitalism.

Marx's distinction between the sphere of production and the sphere of circulation, and between constant capital and variable capital, allows different forms of economic surveillance to be systematically distinguished.

Surveillance and the Cycle of Capital Accumulation

Following Ogura's (2006) and Gandy's (1993) argument that a common characteristic of surveillance is the management of population based on capitalism and/or the nation state, we can distinguish between economic and political surveillance as the two major forms of surveillance. Surveillance by nation states and corporations aims at controlling the behaviour of individuals and groups, i.e. they should be forced to behave or not behave in certain ways because they know that their appearance, movements, location or ideas are or could be watched by surveillance systems (Fuchs, 2008: 267–277). In the case of political surveillance, individuals are threatened by the potential exercise of organized violence (of the law) if they behave in certain ways that are undesired, but watched by political actors (such as secret services or the police). In the case of economic surveillance, individuals are threatened by the violence of the market that wants to force them to buy or produce certain commodities and helps reproduce capitalist relations by gathering and using information on their economic behaviour. In such forms of surveillance, violence and heteronomy are the *ultimo ratio*.

Marx neither described all forms of surveillance, nor all kinds of economic surveillance. He especially could not theorize consumer surveillance and the role of information technologies because these developments were not part of the times he lived in. As a result, '[c]ontemporary surveillance must be understood in the light of changed circumstances, especially the growing centrality of consumption and the adoption of information technologies' (Lyon, 1994: 225). Nonetheless, Marx's framework of political economy describes the cycle of capital accumulation and can be used to systematically locate forms of economic surveillance in the production and circulation process of commodities.

The following table discusses the role of surveillance in the capital accumulation process. Six different forms of surveillance are suggested.

Table 1 shows that surveillance is a central method of control and discipline in the capital accumulation process. Corporations systematically gather data about applicants, employees, the

Table I. The role of surveillance in the cycle of capital accumulation

| Sphere of the accumulation process | Surveillance target | Description | Surveillance methods (examples) |
|------------------------------------|--------------------------------|---|--|
| Circulation | Potential variable capital (v) | <i>Applicant surveillance:</i> Surveillance of potential employees | Access to criminal records, health databases, bank data, employment histories and other databases; talks with former employers and supervisors, information searches on the Internet |
| Production | Variable capital (v) | <i>Workplace surveillance:</i> Surveillance of labour force at the workplace | Managers, supervisors, workplace surveillance technologies, databases, corporate identities, integrative management strategies, participatory management, identification systems, electronic work flow systems, e-mail surveillance, surveillance of employees' Internet activities; fixation of workers' knowledge, answers to problems and best practices in databases |
| Production | Variable capital (v) | <i>Workforce surveillance:</i> Surveillance of productivity | Taylorism: in order to increase productivity, data on the activities of workers are collected, recorded, measured, stored and analysed |
| Production | Constant capital (c) | <i>Property surveillance:</i> Surveillance of private property (commodities, capital, means of production) in order to circumvent theft and sabotage | Security guards, alarm systems, CCTV, access control systems, invisible security labelling or electronic tagging of commodities |
| Circulation | $C' \Rightarrow M'$ | <i>Consumer surveillance:</i> Consumption interests and processes are systematically observed and analysed in order to guarantee the selling of as many commodities as possible and the realization of profit | Marketing research, consumer research, electronic consumer surveillance, Internet consumer surveillance with the help of cookies, targeted advertising mechanisms, spyware, profiling of internet usage behaviour, data gathering by intelligent Internet spiders, spam mail databases, data mining, clickstream monitoring, collaborative filtering, loyalty cards, product testing |
| Circulation | $C' \Rightarrow M'$ | <i>Surveillance of competitors:</i> Corporations have an interest in minimizing competition by other firms in order to maximize market shares and profits, therefore they are interested in collecting and analysing data about the technologies, labour force, organizational structures, commodities, economic performance etc. of their competitors | Marketing research, industrial espionage, information gathering on the Internet, hacking and cracking of computer systems |

labour process, private property, consumers and competitors in order to minimize economic risks, discipline workers, increase productivity, circumvent theft, sabotage and protests, control consumers through advertising, and adapt to changing conditions of competition. The overall aim of multiple surveillance methods and technologies is the maximization of profit and the increased exploitation of labour in order to increase the amount of produced surplus value. Capital employs surveillance to control the production and circulation process, and control and discipline the workforce. Economic surveillance helps minimize the risk of making losses and maximizes opportunities for profits. 'Businesses ... do this by identifying individuals, who, by virtue of their profiles, ratings or comparative scores, should probably be ignored, avoided or treated with the utmost deference and respect' (Gandy, 2003: 30).

Applicant Surveillance

Applicant surveillance takes place in the capital cycle at the stage $M \rightarrow C$ (labour power), where invested money capital buys labour power as a commodity on the labour market. A legally binding relation between a specific employer and a specific employee is established in the form of a labour contract. Applicant surveillance is the collection of data about potential employees that aims at ensuring that a candidate has made correct and complete statements about his/her life and work, that s/he fits the company's interests and will continuously and efficiently create surplus value. Applicant surveillance sorts job applicants into groups of suited and unsuited candidates by collecting data about their lives and work career. The applicants are frequently not aware of this surveillance.

The Californian company Social Intelligence sells applicant surveillance as a specialized service commodity to companies and performs applicant surveillance on social media for employers. The company's description says: 'Social Intelligence Hiring is a background screening service that enables employers to navigate the complicated landscape of social media with clear, consistent, and insightful results. Using a combination of automated and manual review processes, Social Intelligence Hiring empowers human resources personnel to make informed hiring decisions without the associated risks'.¹ 'Social Intelligence Corp solely generates reports based on employer pre-defined criteria, both positive and negative. Negative examples include racist remarks or activities, sexually explicit photos or videos, and illegal activity such as drug use. Positive examples include charitable or volunteer efforts, participation in industry blogs, and external recognition'.² Notice the use of categories like 'navigation', 'informed hiring decisions' and 'generating reports' to describe surveillance processes; the negatively connoted term 'surveillance' that people tend to associate with totalitarian visions like Big Brother is explicitly avoided.

Surveillance of the Workplace and the Workforce

Workplace surveillance, related to the production process P of capital accumulation, is the surveillance of the spaces where work is conducted to ensure that workers conduct the duties that have been assigned to them. Workplace surveillance aims at ensuring that employees do not use work time as idle time, but as surplus value generating activity. Workforce surveillance is surveillance of the activities of employees. It includes performance measurement and activity assessment, and aims at creating data for making the work process more efficient, i.e. producing more surplus value in less time. Both forms can either be known or unknown to the employees. Known workplace and workforce surveillance makes employees discipline their own activities. Unknown workplace surveillance aims at detecting employees that are considered to be unproductive or it acts as a data

foundation to make organizational changes (such as promotion of the most loyal and efficient employees, lay-off of employees that are considered not productive enough) that remain unknown or become known only later to employees.

Classical forms of workforce and workplace surveillance are the use of slave masters in slaveholder societies and foremen and overseers in factories in industrial societies. There are also more technologically mediated forms like work time control systems (ranging from punch card systems to automated digital systems), the use of CCTV or workflow systems.

Lidl is one of the largest discount food store chains in Germany. In 2008 it became known that it used detectives and CCTV cameras to monitor how often employees go to the toilet, how well the work is performed, which employees have intimate relations, what conversations between employees are about, etc.³ The results of these surveillance processes were documented in reports. *Stern* journalist Malte Arnspenger stated: 'Lidl seems to try to know as much as possible about its employees, many details, so as to have means of pressure available if one wants to dismiss them, if one ... maybe does not want to make salary increases, if one wants to carry out salary cuts. It is basically about means for exerting pressure on employees.'⁴ In this example, workplace surveillance seems to have aimed at pressurizing employees in order to accept wage cuts and make them create more surplus value in less time. It was unknown to the employees that they were the objects of surveillance and that the surveillance measures were not aimed at potential thieves.

Special software packages for employee surveillance have been developed. One of them is e-Surveiller, produced by SurveillanceTech LLC, a software company registered in Fairfax, Virginia, USA. It allows the monitoring of all screens of computers connected to a network, logs all keystrokes, all incoming and outgoing e-mail messages and chat messages, records every programme and screen opened, all websites accessed, changes of files, as well as startup, shutdown and login times. The program is invisible and undetectable by users on a network. A standard license costs US\$34.95 for monitoring up to 10 computers, US\$79.95 for surveillance of up to 30 computers and US\$169.95 for unlimited use.⁵

SurveillanceTech describes its product as follows:

e-Surveiller is the world's most powerful software for monitoring and recording every detail of PC and Internet activity – in your home or in your office. In use in homes, offices, schools, libraries and even banks, e-Surveiller records both incoming and outgoing chats, instant messages, web sites visits, keystrokes typed, programs launched, files, documents and folders created, deleted, modified etc. – plus, e-Surveiller empowers you to watch the screen of a remotely monitored computer in real time, as if you were right in front of the computer. All recording and monitoring operations take place at the same time, secretly transferring the log reports to you.⁶

The technical features of the surveillance technology are praised in this text and other descriptions on the product's website, whereas privacy and ethical questions are completely ignored, as they are also in the product FAQs.⁷

e-Surveiller enables employers in knowledge-based industries to measure how much text each employee has written, if and when work time was used for private computer or internet use, how long each employee has worked, etc. Thereby companies are enabled to put pressure on employees, to gain data that can be used for firing those who are considered as being 'unproductive', etc. Workplace and workforce surveillance technologies are means of class struggle used by employers to try to strengthen capital's power against workers, lower wage costs and increase absolute and relative surplus value production. Absolute surplus value production means, according to Marx (1867: chapter 12), that employees work longer hours (e.g. by reducing breaks or conversations

with colleagues during work time because they are afraid of being monitored and losing their job). Relative surplus value production means that employees work more in the same time, i.e. they create more surplus value than at earlier points of time in the same or shorter time spans (Marx, 1867: chapter 12).

Property Surveillance

The production process requires constant capital, machines, buildings, resources, equipment, etc. It results in commodities privately owned by companies, which have an interest in protecting themselves against theft. To achieve this aim, property surveillance is employed. Property surveillance takes place as part of the sphere of production P. Common methods are the use of alarm systems, CCTV and security guards.

The US Bureau of Labor Statistics defines security guards as persons who ‘patrol and inspect property to protect against fire, theft, vandalism, terrorism, and illegal activity. They protect their employer’s property, enforce laws on the property, deter criminal activity and other problems. These workers may be armed. They use various forms of telecommunications to call for assistance from police, fire, or emergency medical services.’⁸ There were 1,076,600 security guards in the USA in 2008 (0.71% of the total workforce) and the projection is that by 2018 the number will have increased by 14 percent.⁹ Property surveillance is a booming business, especially in times of increasing social inequality.

Securitas is a large global security company registered as a publicly traded company in Sweden. It is ranked number 1582 in a list of the world’s largest companies.¹⁰ Its profits were US\$310.2m in 2010.¹¹ It is active in 49 countries and has almost 300,000 employees.¹² Securitas describes itself as a company that protects society: ‘We protect homes, workplaces and society. Our core business is security services. The main service offering categories are specialized guarding, mobile security services, monitoring and consulting and investigation services’.¹³

The size of companies like Securitas shows that property surveillance is a business coupled to the general capital accumulation cycle. The cycle of capital accumulation is protected with the help of property surveillance companies against theft. There is a tendency that companies invest part of their profits in property surveillance services and technologies in order to reduce the risk of intrusion and theft that could harm their profits.

Consumer Surveillance

Consumer surveillance is related to the sphere of circulation, the selling of commodities to customers, i.e. to the process $C' = >M'$. Companies need to sell their commodities in order to realize profit; they must transform commodities into money capital in order to survive. In order to sell and market commodities, it helps companies to know as much about their customers as possible: who they are, where they live, why they are interested in certain products and not in others, their jobs, their private activities, interests and attitudes, who their friends are, when and where they meet other people, when and with whom they have sex, etc. Consumer and marketing research deal with these questions and aim to provide companies with data about actual and potential consumers.

One example of consumer surveillance is the use of credit card data by American Express. According to its Charge Cardmember Agreement, American Express can use all purchase data for the purpose of providing advertising to cardholders:

17.9.1. *We*, other companies within *our group*, third party organizations who issue the *card*, companies who distribute the *card* or processors and other companies specifically selected by *us* will: 17.9.1 have access to and use information about *you* and how *you* use *your* account to develop lists of goods and services in which *you* may be interested; and 17.9.2 communicate with *you* (by mail, e-mail, telephone, SMS or via the Internet) in connection with similar goods and services in which *you* may be interested. (Emphases in original.)¹⁴

Cardholders can opt out from this use of their data, but they have to take specific action in order to do so (writing to American Express) and the opt-out option is hidden in long and complex terms of use. The formulation 'other companies specifically selected by *us*' means that American Express guarantees itself the right to sell cardholders' information to other companies, who can contact the cardholders for advertising purposes and target their ads to consumption behaviour. Targeted advertising has obtained a new dimension in social media platforms such as Facebook that contain a lot of private information (such as contacts, friends, hobbies, relationship status, political and religious views, etc): consumer surveillance with targeted advertising is based on a large set of personal data that describes many details of individuals' lives (Fuchs, 2011a, 2011b).

The Surveillance of Competitors

The sphere of circulation $C' = >M'$ is another locus of surveillance: the surveillance of market competitors. Companies want to know which products their direct competitors are developing and what are their business plans, prices, employment conditions, etc. This form of surveillance is a direct result of capitalism's structural principle of competition. A company wants to produce cheaper and to sell at lower prices than its competitors. To do so, companies tend to want to collect as much data as possible about competing organizations.

Starwood Hotels and Resorts Worldwide, Inc. filed a lawsuit against its competitor Hilton Worldwide in 2009, claiming that a former Starwood manager downloaded 100,000 files about Starwood's hotel chain and provided them to Hilton. The *Guardian* wrote about this case:

Starwood claims that California-based Hilton has been under intense pressure for improved profits since it was bought by the private equity company Blackstone for US\$20bn (£13.5bn) in 2007 ... Competition has become fierce among hoteliers as the economic downturn hits occupancy rates.¹⁵

The example shows that industrial espionage is driven by the logic of competition and that crises are likely to increase the rate and frequency of competitor surveillance.

The Relation of Economic Surveillance to State Surveillance

Economic surveillance is related to state surveillance in different ways. Laws that decide under which circumstances certain forms of economic surveillance are legal or illegal regulate the six identified forms of economic surveillance. The regulation of surveillance, for example, refers to questions like: Are employers allowed to use CCTV camera surveillance at workplaces to monitor employees? Should the surveillance of consumer behaviour for advertising purposes be legal or illegal? What is the penalty for industrial espionage? Should it be legal for employers to search for data about job applicants and base their employment decisions on these data?

Economic surveillance is also related to the state's role in internal and external defence. Internal defence involves policing, the prison system and intelligence activities directed towards a state's

citizens. Policing relates to property questions by guaranteeing the protection of private property. Property crime is one specific type of crime. Surveillance of citizens is used to locate people who have committed property crimes and increasingly also for pre-emptive purposes, which raises questions about the legal principle of the presumption of innocence: all citizens are considered to be potential criminals until proven not guilty by pre-emptive surveillance methods. The prison system makes use of surveillance of criminals in order to hinder them escaping. Internal intelligence makes use of surveillance technologies for monitoring the activities of citizens and political groups that are under suspicion of actually or potentially questioning the foundations of the state system. The history of the working class movement has also been accompanied by a history of surveillance. Examples are the surveillance and repression of trade unionists, communists and social democrats in the McCarthy era, and the systematic surveillance of socialist and civil rights organizations in the US COINTEL PRO programme (Counter Intelligence Program).

Surveillance of socialist movements and for the defence of property rights has a relatively direct link to the capital accumulation cycle, although it is part of the political system. It protects against disruption of the capital accumulation cycle by protests or the disappearance of resources.

External defence and intelligence is related to the opposition of the state to external threats by military means. Surveillance here is the surveillance of other nation states, institutions and political groups in other countries. It serves predominantly in the defence of the nation state. Any war or external threat is always a threat for the whole societal system. It is also a threat for the capitalist economy. So surveillance for reasons of external defence in capitalist societies is also a defence of the capitalist economy, just as it is a defence of the state, the educational system, the health care system, the welfare system etc. It indirectly or directly serves capitalist purposes. As shown above in the section 'Karl Marx on Surveillance', Marx was very well aware of the political and state dimension of surveillance and its coupling with the political economy of capitalism.

It is important to stress that the state is not always a 'class state' that serves capitalist interests by conducting and enabling surveillance. Given the right kind of government, states can also pass legislation that protects consumers' and employees' privacy from surveillance that serves corporate interests. The state, for example, has the power to potentially ban or considerably limit all workplace surveillance and consumer surveillance and thereby to strengthen privacy rights. This requires, however, consumer- and worker-oriented politics.

Conclusion

The rise of capitalism has resulted in the idea that the private sphere should be separated from the public sphere and that therefore autonomy and anonymity of the individual is needed in the private sphere. The rise of the idea of privacy in modern society is connected to the ideal of the freedom of private ownership. Private ownership is the idea that humans have the right to own as much wealth as they want, as long as it is inherited or acquired through individual achievements. There is an antagonism between private ownership and social equity in modern society. How much and what exactly a person owns is treated as an aspect of privacy. To keep ownership structures secret is a measure of protection against public questioning or political and individual attacks on private ownership.

Capitalism requires anonymity and privacy in order to function, but at the same time strangers enter social relations that require trust to enable exchange. Whether or not a stranger can be trusted is checked with the help of surveillance. The ideals of modernity (such as the freedom of ownership) also produce phenomena such as income and wealth inequality, poverty, unemployment, and precarious living and working conditions. These socio-economic differences pose problems for the

maintenance of order and private ownership (crime, political protests, violent conflicts). As a result, state surveillance is a necessary component of modern societies. Corporations have the aim of accumulating ever more capital. To do so, they have an interest in knowing as much as possible about the interests, tastes and behaviours of their customers. This results in the surveillance of consumers. Accumulating capital also requires the direct and ideological control of employee behaviour. Therefore, various personal and technological forms of surveillance in the production process are necessary elements of the capitalist economy.

Establishing trust, socio-economic differences and corporate interests are three qualities of modernity that necessitate surveillance. Therefore, modernity advances the ideal of a right to privacy, but at the same time must continuously advance surveillance that undermines privacy rights. An antagonism between privacy ideals and surveillance is therefore constitutive for capitalism.

Surveillance studies is an interdisciplinary field, in which one can find approaches that connect the notion of surveillance to economic, political and cultural forms of domination. At the end of the first decade of the 21st century, capitalist society has entered global economic crisis and is facing numerous global problems. The continuous extension and intensification of surveillance may be interpreted as a reactive attempt to manage such crises. The new millennium started with the burst of the dot.com bubble. Crisis management saw the emergence of new accumulation strategies that resulted in the emergence of internet platforms that focus on the combination of multimedia, user-generated content, community building, and communication (e.g. Facebook, Twitter, YouTube). These platforms are advertising-based and accumulate profit by targeted advertising that requires the massive surveillance and commodification of user data and user behaviour data for economic ends (Fuchs, 2008, 2011a, 2011b, 2011c, 2012).

In 2001, the attacks on the World Trade Center triggered a new global war that resulted in a vicious cycle of reinforcing mutual violence. One of the results of this crisis was that nation states have tried to manage the crisis by extending and intensifying state surveillance of citizens for the pre-emptive identification of terrorists. Notwithstanding the question of whether such a surveillance strategy can actually reduce terrorism, the consequence has been a climate of general fear, mistrust, suspicion and the reduction of citizens to the status of potential terrorists that need to be kept under permanent supervision and control. The end of the first decade of the 21st century saw a finance crisis in the housing market that triggered the worst global economic crisis in 80 years. The continuous crisis and intensification of misery resulted in a renewed interest in the categories of Marxian analysis. As surveillance is an important phenomenon of the contemporary age, this article contributes to the systematic conceptualization of surveillance with the help of Marxian categories.

Surveillance scholars either claim that Marx ignored surveillance or acknowledge to a minor degree the importance of Marx for surveillance studies but at the same time relativize this statement by either conducting multidimensional analyses that miss causal connections or by implicitly or metaphorically using certain Marxian concepts without connecting the analysis of surveillance systematically to Marx's works and to the cycle of capital accumulation. However, as we have seen above, Anthony Giddens's claim that Marx ignored the analysis of the role of surveillance in modern society cannot be substantiated. The Marxian concept of the cycle of capital accumulation allows six forms of economic surveillance to be systematically distinguished: applicant surveillance, workplace surveillance, workforce surveillance, property surveillance, consumer surveillance and surveillance of competition.

Surveillance has become a ubiquitous phenomenon. Capitalist society is based on the instrumental and competitive logic of accumulation that stratifies society and, as a result, creates economic, political, cultural, social and ecological problems. Surveillance is connected to these

ongoing stratification processes. It is the collection of data on individuals or groups to control and discipline their behaviour. It can be exercised through threats of targeting someone by violence. Surveillance is an expression of instrumental reason and competition: it is based on the idea that certain individuals or groups are watched and that data on their behaviour, ideas, look, etc. are gathered so that the targets can be controlled and disciplined and as an effect of these disciplines will choose certain actions and avoid others that are considered undesirable. Competitive interests and behaviours are involved, the controlling group, class or individuals try to force the surveilled to avoid certain actions by conveying to the latter that information on them is available that could be used for actions that could have negative influences on their lives.

Surveillance operates with threats and fear; it is a form of psychological and structural violence that can turn into physical violence. Surveillance is a specific kind of information gathering, storage, processing and assessment, and its use involves potential or actual harm, coercion, violence, asymmetric power relations, control, manipulation, domination and disciplinary power. It is an instrument and a means for trying to derive and accumulate benefits for certain groups or individuals at the expense of other groups or individuals. It tries to bring about or prevent certain behaviours of groups or individuals by gathering, storing, processing, diffusing, assessing and using data so that potential or actual physical, ideological or structural violence can be directed against humans in order to control and steer their behaviour. This influence is brought about by coercive means.

An important future task is to systematically analyse surveillance phenomena such as targeted advertising on the internet, surveillance on social media conducted by corporations, the police and secret services, political surveillance after 9/11, contemporary consumer surveillance, CCTV, surveillance in ubiquitous computing and on the mobile internet, new electronic forms of consumer surveillance, internet surveillance on Facebook and Google, etc. I am convinced that if such analyses are to be critical in character, this requires connecting them to Marxian categories such as accumulation, class and surplus value. This article aimed at contributing to laying the theoretical foundations for such analyses.

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Notes

- 1 See <http://www.socialintel.com/about> (consulted 28 September 2011).
- 2 See <http://www.socialintel.com/home> (consulted 28 September 2011).
- 3 See <http://www.stern.de/wirtschaft/news/unternehmen/bespitzelung-bei-lidl-der-skandal-der-die-republik-erschuetterte-649156.html> (consulted 28 September 2011).
- 4 Translation from German. 'Lidl versucht wohl über seine Mitarbeiter so viel wie möglich zu wissen, viele Einzelheiten zu wissen, um Druckmittel zu haben, wenn man sie entlassen will, wenn man ... vielleicht keine Gehaltserhöhungen machen will, wenn man Gealtskürzungen durchführen will. Es geht im Grunde genommen um Druckmittel gegenüber den Mitarbeitern'. Available (consulted 28 September 2011) at: <http://www.stern.de/panorama/ueberwachung-bei-lidl-so-wurde-der-spitzelskandal-aufgedeckt-615056.html>
- 5 See <http://www.e-surveiller.com/order.htm> (consulted 28 September 2011).
- 6 See <http://www.e-surveiller.com/features.htm> (consulted 28 September 2011).
- 7 See <http://www.e-surveiller.com/faq.htm> (consulted 28 September 2011).
- 8 See <http://www.bls.gov/oco/ocos159.htm> (consulted 28 September 2011).
- 9 See <http://www.bls.gov/oco/ocos159.htm> (consulted 28 September 2011).

- 10 Data sources: Forbes 2000, 2010 list. Available (consulted 28 September 2011) at: <http://www.forbes.com/global2000>
- 11 Data sources: Forbes 2000, 2010 list. Available (consulted 28 September 2011) at: <http://www.forbes.com/global2000>
- 12 See <http://www.securitas.com/en/About-Securitas/> (consulted 28 September 2011).
- 13 See <http://www.securitas.com/en/About-Securitas/Securitas-in-brief/> (consulted 28 September 2011).
- 14 Source: American Express Charge Cardmember Agreement. Available (consulted 28 September 2011) at: <http://www.americanexpress.com>
- 15 See <http://www.guardian.co.uk/business/2009/apr/17/industrial-espionage-hotel-industry-lawsuit> (consulted 28 September 2011).

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