The Internet & Surveillance - Research Paper Series

Edited by the Unified Theory of Information Research Group, Vienna, Austria (http://www.uti.at)

ISSN 2219-603X

Title: Critique of the Political Economy of Web 2.0 Surveillance

Author: Christian Fuchs

Research Paper Number #3

Date of Publication: October 1, 2010

Author Institution: Department of Informatics and Media Studies, Uppsala University

Author Address: Kyrkogårdsgatan 10, Box 513, 751 20 Uppsala, Sweden

Author e-Mail: christian.fuchs@uti.at

Author URL: http://fuchs.uti.at

Acknowledgement: The research presented in this paper was conducted in the project "Social Networking Sites in the Surveillance Society" (http://www.sns3.uti.at), funded by the Austrian Science Fund (FWF): project number P 22445-G17. Project co-ordination: Dr. Christian Fuchs

FWF Der Wissenschaftsfonds.

SN[S]3 Social Networking Sites in the Surveillance Society

Critique of the Political Economy of Web 2.0 Surveillance

Christian Fuchs

Abstract: *"Web 2.0" platforms such as YouTube, MySpace, Facebook, Flickr, and Twitter that focus on data sharing, communication, community, and co-production have become very popular. It is therefore important to understand the economic organization of these platforms. The basic research question of this contribution is: How does the political economy of web 2.0 work and what is the role of surveillance? For answering this question, further questions are asked: What is the role of surveillance in critical political economy studies? What is the role of surveillance in the political economy of capitalism? How does capital accumulation work on web 2.0 platforms? What is the role of surveillance in web 2.0 capital accumulation? For answering the research questions, first the role of surveillance in the classical critical political economy studies is discussed. Then, a model that conceptualizes the cycle of capital accumulation and distinguishes between production and circulation of capital is introduced. Next, the multiple roles of surveillance in capital accumulation are discussed and the connection of privacy, surveillance, and capitalism is outlined. The relationship of capital accumulation, web 2.0, and surveillance is discussed, the role of the users in this process is empirically studies, and finally some conclusions that centre on the notion of resistance are drawn. The method employed in this paper is a combination of social theory and empirical research. For conceptualizing the role of surveillance in capitalism and on web 2.0, critical political economy is used as method for theory-construction. Data collection about Internet usage and statistical analysis are used for analyzing the political economy of web 2.0. For analyzing user perspectives, the results of a quantitative and qualitative online survey are reported. In classical critical political economy, there is a focus on surveillance conducted by two actors: capital and the nation state. In the cycle of capital accumulation, the economy is conceived as a dynamic system that is based on labour power, constant capital, surplus value production, commodity production and circulation, and profit realization by consumption. Six forms of economic surveillance in capitalism can be distinguished: applicant surveillance, workplace surveillance, workforce surveillance, property surveillance, consumer surveillance, and surveillance of competition. It is maintained that web 2.0 is dominated by corporate interests and has not brought about a more democratic society or a more democratic media landscape. For analyzing the political economy of surveillance on web 2.0 the notion of the Internet produsage commodity is introduced and the role of targeted advertising is discussed. The results of a survey show that users see a contradiction of surveillance and communication/community at the heart of perceived disadvantages and advantages of web 2.0. As policy conclusion, the perspectives of corporate watch platforms, online protests, opt out solutions, and non-commercial web platforms are discussed.*

Keywords: web 2.0, social media, capitalism, surveillance, political economy

Short biography of the author/s: Christian Fuchs is co-ordinator of the research project "Social Networking sites in the surveillance society", which is funded by the Austrian Science Fund FWF. He is board member of the Unified Theory of Information Research Group, Austria, and chair professor for media and communication studies at Uppsala University. He edits tripleC (cognition, communication, co-operation): Journal for a Global Sustainable Information Society. He has authored many publications in the thematic areas of social theory, critical theory, ICTs & society, Internet & society, media & society, including the books "Internet & Society: Social Theory in the Information Age" (Routledge 2008) and "Foundations of Critical Media and Information Studies" (Routledge 2011). Fuchs is management

committee member of the EU COST action "Living in Surveillance Technologies" (LiSS, see http://www.liss-cost.eu/) and member of the LiSS working group "Surveillance Technologies in Practice". Together with Kees Boersma, Anders Albrechtslund, and Marisol Sandoval, he edits the collected volume "The Internet & Surveillance (Routledge 2011). Website: http://fuchs.uti.at

1. Introduction

Facebook, YouTube, MySpace, Blogspot/Blogger, Wordpress, Twitter, Flickr – these are just some of the world wide web platforms that have become popular in recent yours. Blogs, wikis, file sharing platforms, and social networking platforms are some of the techno-social systems that shape Internet experiences of users in contemporary society. Scholars, the media, and parts of the public claim that the Internet has become more social, more participatory, and more democratic (see Fuchs 2010). These claims might be overdrawn and techno-optimistic ideologies because the e-mail technology was created in the early 1970 and has since a long time been the most popular and widely used Internet technology, which shows that the Internet was social and communicative right from its beginning. Therefore the claims about "web 2.0" should be more modest. Many web 2.0 site combine older applications such as forums, guest books, e-mail, multimedia, and hypertext in one user-friendly platform, which increases the appeal and ease-of-use and so supports increased usage. Increased bandwidth and cheaper production technologies (digital cameras, etc) now allow the easy, fast, and cheap transmission and sharing of audio and video files and has resulted in increased popularity of user-generated content. The discussion of surveillance in web 2.0 is important because such platforms collect huge amounts of personal data in order to work.

I want to start with an example that shows the problems of web 2.0 surveillance: Google Buzz. In February 2010, Google introduced a new social networking service called Buzz. Buzz is directly connected to GMail, Google's webmail-platform. Google's introduction of Buzz is an attempt to gain importance in the social networking sites-market that has been dominated by Facebook and Twitter. In February 2010, Facebook was ranked number 2 and Twitter number 12 in the list of the most accessed web platforms, whereas Google's own social networking platform Orkut, which is only very popular in Brazil, was at number 52 (data source: http://alexa.com, the top 500 sites on the web, February 14, 2010). Popular social networking platforms attract millions of users, who upload and share personal information that provides data about their consumption preferences. Therefore commercial social networking sites are keen on storing, analyzing, and selling individual and aggregated data about user preferences and user behaviour to advertising clients in order to accumulate capital. Google is itself a main player in the business of online advertising. One can therefore assume that Google considers Facebook, Twitter, and other platforms that attract many users, as competitors, and that as a result of this competitive situation Google has introduced Buzz. In 2009, GMail had approximately 150 million users (see http://www.tech24hours.com/2009/09/number-of-gmail-users-worldwide-as-of.html, accessed on February 14, 2010), which explains that Google integrated Buzz into GMail in order to start from a solid foundation of potential users.

Buzz supports the following communicative functions: the creation of postings that are shared with contacts, the sharing of images and videos, commenting and evaluating others' Buzz posts, the forwarding of Twitter messages to a Buzz account, linking

and integrating images uploaded to Flickr or Picasa, videos uploaded to YouTube, and posts generated on Blogger; the usage of Buzz via mobile phones. Buzz messages can either be presented publicly or only to selected groups of followers. Each user's Buzz profile has a list of followers. Users can select which Buzz accounts they want to follow. Buzz mobile phone messages include geo-tags that display the current location of users. Buzz posts of users who are geographically located nearby a user and information about nearby sites, shops, restaurants, etc can be displayed on mobile phones. Buzz also recommends postings by others users.

In December 2009, Google's CEO Eric Schmidt commented about online privacy: "If you have something that you do not want anyone to know, maybe you should not be doing it in the first place" (http://www.youtube.com/watch?v=A6e7wfDHzew, accessed on February 14, 2010). This statement is an indication that Google or at least its most important managers and shareholders do not value privacy very highly. Schmidt's statement implies that he thinks that in the online world, all uploaded information and personal data should be available publicly and should be usable by corporations for economic ends.

When first installing Buzz, the application automatically generated a list of followers for each user based on the most frequent GMail mail contacts. The standard setting was that this list of followers was automatically visible in public. This design move resulted in heavy criticism of Google in the days following the launch of Buzz. Users and civil rights advocates argued that Buzz threatens the privacy of users and makes contacts that users might want to keep private available in public. Google reacted to public criticism[1] and changed some of the standard settings of Buzz on February 13, 2010. Some changes were made to the auto-follow option, so that now a dialogue is displayed that shows which users Buzz suggests as followers[2]. But still all suggested followers are automatically activated, which does not make this solution an opt-in version of the follow feature. Google also said that Buzz would no longer automatically connect publicly available Picasa and Google Reader items to the application. Also an options menu was announced that allows users to hide their contact list from their public Google profiles. The problem here is again that this was planned as an opt-out solution, and not as an opt-in option[3]. From a privacy-enhancing perspective, opt-in solutions are preferable to opt-out solutions because they give users more control over what applications are allowed to do with their data. However, it is clear that opt-in solutions are rather unpopular design options for many Internet corporations because they tend to reduce the number of potential users that are subject to advertising-oriented data surveillance.

---

[1] See: http://gmailblog.blogspot.com/2010/02/new-buzz-start-up-experience-based-on.html, http://www.huffingtonpost.com/2010/02/13/buzz-changes-google-drops_n_461656.html, accessed on February 14, 2010

[2] See: http://gmailblog.blogspot.com/2010/02/new-buzz-start-up-experience-based-on.html, accessed on February 14, 2010

[3] See: http://gmailblog.blogspot.com/2010/02/new-buzz-start-up-experience-based-on.html, accessed on February 14, 2010

Google's economic strategy is to gather data about users that utilize different Google applications in different everyday situations. The more everyday situations can be supported by Google applications, the more time users will spend online with Google, so that more user data will be available to Google, which allows the company to better analyze usage and consumer behaviour. As a result, more and more precise user data and aggregated data can be sold to advertising clients that provide the users with personalized advertising that targets them in all of these everyday situations with information about potential consumption choices. The introduction of ever more applications does primarily serve economic ends that are realized by large-scale user surveillance. As more and more people access the Internet from their mobile phones, the number of times and the time spans users are online as well as the number of access points and situations in which users are online increase. Therefore supplying applications that are attractive for users in all of these circumstances (such as waiting for the bus or the underground, travelling on the train or the airplane, going to a restaurant, concert, or movie, visiting friends, attending a business meeting, etc), promises that users spend more time online with applications supplied by specific companies such as Google, which allows these companies to present more advertisements that are more individually targeted to users, which in turn promises more profit for the companies. We can therefore say that there is a strong economic incentive for Google's and other companies' introduction of new Internet- and mobile Internet-applications.

Google Buzz is part of Google's empire of economic surveillance. It gathers information about user behaviour and user interests in order to store, assess, and sell this data to advertising clients. These surveillance practices are legally guaranteed by the Buzz privacy policy, which says for example:

When you use Google Buzz, we may record information about your use of the product, such as the posts that you like or comment on and the other users who you communicate with. This is to provide you with a better experience on Buzz and other Google services and to improve the quality of Google services. [...] If you use Google Buzz on a mobile device and choose to view 'nearby' posts, your location will be collected by Google" (Google Buzz Privacy Policy, February 14, 2010).

The basic research question of this contribution is: How does the political economy of web 2.0 work and what is the role of surveillance? For answering this question, further questions are asked: What is the role of surveillance in critical political economy studies? What is the role of surveillance in the political economy of capitalism? How does capital accumulation work on web 2.0 platforms? What is the role of surveillance in web 2.0 capital accumulation?

The method employed in this paper is a combination of social theory and empirical research. For conceptualizing the role of surveillance in capitalism and on web 2.0, critical political economy is used as method for theory-construction. Data collection about Internet usage and statistical analysis are used for analyzing the political economy of web 2.0. For analyzing user perspectives, the results of a quantitative and qualitative online survey are reported.

Political economy focuses on the analysis of the inner constitution and dynamics of the economic system. It is political economy because it sees political interests at work in the modern economy. In critical political economy, these interests are conceived as contradictory class interests. Critique of the political economy aims to show the limitations, contradictions, and problems of the capitalist economy, it questions the legitimacy and logic of academic approaches that conceive capitalist phenomena (such as the commodity, exchange value, profit, money, capital, the division of labour, etc) as universal and not as historically contingent and changeable, and it questions the modes of thinking that postulate the endlessness and reification of existing reality (ideology critique).

For answering the research questions posed in this paper, first the role of surveillance in the classical critical political economy studies is discussed (section two). Then, a model that conceptualizes the cycle of capital accumulation and distinguishes between production and circulation of capital is introduced (section three). Next, the multiple roles of surveillance in capital accumulation are discussed (section four) and the connection of privacy, surveillance, and capitalism is outlined (section five). The relationship of capital accumulation, web 2.0, and surveillance is discussed (section six), the role of the users in this process is empirically studies (section seven), and finally some conclusions that centre on the notion of resistance are drawn (section eight).

2. Marx on Surveillance

For Karl Marx, surveillance was a fundamental aspect of the capitalist economy and the 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" (450) and that this despotism is not directly exerted by the capitalist. "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 N.C.O.s (foremen, overseers), who command during the labour process in the name of capital. The work of supervision becomes their established and exclusive function" (450).

Marx argues that in the United States, population growth in the 19th century resulted in the surveillance of states and regions (MEW 7, 434). He says that nation states engage in the surveillance of passenger traffic (MEW 6, 127), the surveillance of the execution of laws (MEW 19, 30), spying (MEW 8, 437), police surveillance (MEW 2, 78; 7, 313; 9, 511; 17, 401; 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).

Although Marx at single instances also used the notion of surveillance in the sense of counter-surveillance (watching the watchers) when he said for example 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), the two main actors of surveillance that he identifies are capital and the nation state. He therefore grounded a critical notion of surveillance that can today still be found in the critical 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". Oscar Gandy 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" (Gandy 1993, 95).

3. The Cycle of Capital Accumulation

"Contemporary 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). Capitalism has changed, so at the time of Marx consumer surveillance and electronic surveillance were hardly important. Economic surveillance focused on the control of the production process. Nonetheless, the Marxian framework of political economy that describes the cycle of capital accumulation, can be used today for systematically locating forms of economic surveillance in the production and circulation process.

In the three volumes of Capital, Marx analyzes the accumulation process of capital. This process, as described by Marx, is visualized in figure 1. Introducing some important categories that Marx employs can summarize this account.

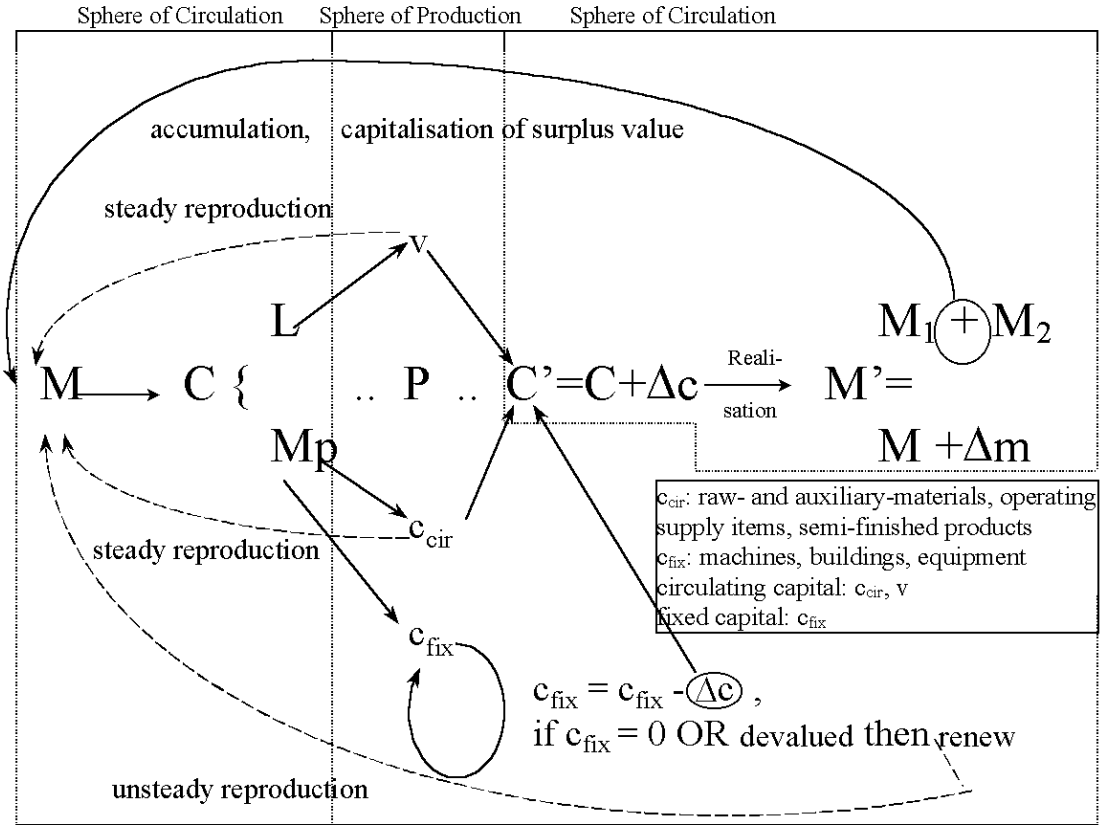

Fig. 1. The accumulation/expanded reproduction of capital

Marx's theory is a labour theory of value, which is a theory that draws conclusion from the analysis of the total labour time that is needed for the production of goods. It is also a critique of value, which means that the forms that value takes in capitalism and the practices and ideologies that are based on this form are questioned. The value of a good is the total time that is needed for its production. The more value a good has, the longer its production takes. At the level of prices, this can be observed by the fact that labour-intensive goods are frequently more expensive than goods with low labour intensity. Marx argues that the cell form of capitalism is the commodity, goods that are exchanged in a certain quantitative relationship with money (x amount of commodity A = y units of money). He says that in societies that are based on the economic principle of exchange, goods have a use value and an exchange value. The use value is the qualitative aspect of a good; it is a utility that satisfies certain human needs. In exchange-based societies, humans can only get hold of such goods by exchanging other goods (such as money or their labour power) with the needed goods in certain quantitative relationships (x commodity A = y commodity B). Concrete labour is a category that is used for describing the creation of the use value of a good by humans. Abstract labour is a category employed for signifying the creation of the value of a good, i.e. the objectified labour time needed for its production. Marx sees money as the general equivalent of exchange; it simplifies the exchange of commodities and is therefore a general commodity.

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 to make 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 Mp. M-C is based on the two purchases M-L and M-Mp. 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 production" (Marx 1885, 116). This means that due to private property structures workers do not own the means of production, the products they produce, and the profit they generate. Capitalists own these resources.

In the sphere of production, a new good 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).

That part of capital, therefore, which is turned into means of production, i.e. the raw material, the auxiliary material and the instruments of labour, does not undergo any quantitative alteration of value in the process of production. For this reason, I call it the constant part of capital, or more briefly, constant capital. On the other hand, that part of capital which is turned into labour-power does undergo an alteration of value in the process of production. It both reproduces the equivalent of its own value and produces an excess, a surplus-value, which may itself vary, and be more or less according to circumstances. This part of capital is continually being transformed from a constant into a variable magnitude. I therefore call it the variable part of capital, or more briefly, variable capital. (Marx 1867, 317).

Constant capital consists of two parts: circulating constant capital ccir (the value of the utilized raw materials, auxiliary materials, operating supply items and semi-finished products) and fixed constant capital cfix (the value of the utilized machines, buildings and equipment) (Marx 1885, chapter 8). ccir and v together form circulating capital: They transfuse their value totally to the product and must be constantly renewed. cfix remains fixed in the production process for many turnovers of capital. The turnover time of capital is the sum of its circulation time and its production time (Marx 1885, 236). Circulation time is the time that capital takes to be transformed from its commodity form into the money form and later from its money form to its commodity form. Production time is the time that capital takes in the sphere of production.

Fixed constant capital decreases its 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).

A part of the capital value advanced is fixed in this form, which is determined by the function of the means of labour in the process. As a means of labour functions and is used up, one part of its value passes over to the product, while another part remains fixed in the means of labour and hence in the production process. The value fixed in this way steadily declines, until the means of labour is worn out and has therefore distributed its value, in a longer or shorter period, over the volume of products that has emerged from a series of continually repeated labour processes (Marx 1885, 237f).

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, therefore the production of surplus value 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 the commodity form back into the money form. Surplus value is realized in the form of money value. The initial money capital M now takes on the form M' = M + Δm, 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', M1, 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. Capital is money that is permanently increasing due to the exploitation of surplus value.

Commodities are sold at prices that are higher than the investment costs so that money profit is generated. For Marx, one decisive quality of capital accumulation is that profit is an emergent property of production that is produced by labour, but owned by the capitalists. Without labour no profit could be made. Workers are forced to enter class relations and to produce profit in order to survive, which enables capital to appropriate surplus. The notion of exploited surplus value is the main concept of Marx's theory, by which he intends to show that capitalism is a class society. "The theory of surplus value is in consequence immediately the theory of exploitation" (Negri 1991, 74) and, one can add, the theory of class and as a consequence the political demand for a classless society. The capitalist wants to produce a commodity greater in value than the sum of the values of the commodities used to produce it, namely the means of production and the labour-power he purchased with his good money on the open market. His aim is to produce not only a use-value, but a commodity; not only use-value, but value; and not just value, but also surplus value […] The cotton originally bought for £100 is for example re-sold at £100 + £10, i.e. £110. The

complete form of this process is therefore M-C-M', where M' = M + ΔM, i.e. the original sum advanced plus an increment. This increment or excess over the original value I call 'surplus-value' (Marx 1867, 293, 251).

Capital is not money, but money that is increased through accumulation, "money which begets money" (Marx 1867, 256). Marx argues that the value of labour power is the average amount of time that is needed for the production of goods that are necessary for survival (necessary labour time), which in capitalism is paid for by workers with their wages. Surplus labour time is all labour time that exceeds necessary labour time, remains unpaid, is appropriated for free by capitalists, and transformed into money profit.

Surplus value "is in substance the materialization of unpaid labour-time. The secret of the self-valorization of capital resolves itself into the fact that it has at its disposal a definite quantity of the unpaid labour of other people" (Marx 1867, 672). Surplus value "costs the worker labour but the capitalist nothing", but "none the less becomes the legitimate property of the capitalist" (Marx 1867, 672).

Capital also developed into a coercive relation, and this compels the working class to do more work than would be required by the narrow circle of its own needs. As an agent in producing the activity of others, as an extractor of surplus labour and an exploiter of labour-power, it surpasses all earlier systems of production, which were based on directly compulsory labour, in its energy and its quality of unbounded and ruthless activity (Marx 1867, 425).

Surplus value also means that workers are compelled to work more than necessary for satisfying their immediate needs, they produce an excess for free that is appropriated by capitalists: "What appears as surplus value on capital's side appears identically on the worker's side as surplus labour in excess of his requirements as worker, hence in excess of his immediate requirements for keeping himself alive" (Marx 1857/58, 324f).

Marx argues that capitalists are unproductive, they do not produce value, and that profit stems from the production of value by workers that is exploited and appropriated by capitalists. He uses the term productive labour in this context: Productive labour "produces surplus-value for the capitalist, or in other words contributes towards the self-valorization of capital" (Marx 1867, 644). 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 vampire and werewolf. "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).

4. Surveillance and the Circle of Surveillance

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 electronic 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 electronic surveillance, individuals are threatened by the violence of the market that wants to force them to buy or produce certain commodities and help reproduce capitalist relations by gathering and using information on their economic behaviour with the help of electronic systems. In such forms of surveillance violence and heteronomy are the ultimo ratio.

The following table discusses the role of surveillance at the various points in the capital accumulation process.

Sphere of the accumulation process	**Surveillance target**	**Description**	**Methods (examples)**
Circulation	potential variable capital (v)	applicant surveillance: surveillance of potential work forces	access to criminal records, health databases, bank data, employment histories, and other databases; talks with former employers and supervisors, information search on the Internet
Production	variable capital (v)	workplace surveillance: surveillance of labour forces at the work place	managers, supervisors, work place 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)	workforce surveillance: surveillance of productivity	Taylorism: in order to increase productivity, data on the activities of workers are collected, recorded, measured, stored, and analyzed
Production	constant capital (c)	property surveillance: 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	W' => G'	consumer surveillance: consumption interests and processes are systematically observed and analyzed in order to guarantee the selling of as much commodities as possible and the realization of profit	marketing research, consumer research, electronic consumer surveillance (especially on the Internet: 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	W' => G'	surveillance of competition: corporations have the interest to minimize competition by other firms in order to maximize market shares and profits, therefore they are interesting 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

Table 1: The role of surveillance in the cycle of capital accumulation

Table 1 shows that surveillance is a central method of control and discipline in the capital accumulation process. Corporations conduct a systematic gathering of data about applicants, employees, the 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 the employment of multiple surveillance methods and technologies in the capital accumulation process is the maximization of profit and the increased exploitation of surplus value. Surveillance is a method that capital employs for controlling the production and circulation process and for controlling and disciplining the workforce. Economic surveillance is a way of minimizing the risk of making losses and maximizing the opportunities for making profits.

5. Privacy, Surveillance, and Capitalism

Privacy is in modern societies an Enlightenment ideal. The rise of capitalism has resulted in the idea that the private sphere should be separated from the public sphere and not accessible for the public 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 rise of the central 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 modern society. How much and what exactly a person owns is treated as an aspect of privacy in contemporary society. To keep ownership structures secret is a measure of precaution against the public questioning or the political and individual attack against private ownership. Capitalism requires anonymity and privacy in order to function. But at the same time in modernity strangers enter social relations that require trust or enabling exchange. If a stranger can be trusted is checked with the help of surveillance procedures. The ideals of modernity (such as the freedom of ownership) also produce phenomena such as income and wealth inequality, poverty, unemployment, precarious living and working conditions. These socio-economic differences pose problems for the maintenance of order and private ownership (crime, political protests, violent conflicts) that need to be contained if modernity wants to survive. As a result, state surveillance is a necessary component of modern societies. Corporations have the aim of accumulating ever more capital. For doing 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.

The establishment of trust, socio-economic differences, and corporate interests are three qualities of modernity that necessitate surveillance. Therefore modernity on the one hand advances the ideal of a right to privacy, but at the same time it must continuously advance surveillance that threatens to undermine privacy rights. An antagonism between privacy ideals and surveillance is therefore constitutive for capital-

ism. This connection has been observed by a number of authors in surveillance studies (Gumpert and Drucker 2000, 172; Lyon 2001, 21+27; Nock 1993, 1; Sewell and Barker 2007, 356)

Some research has been conducted about public privacy and surveillance awareness and the awareness of consumers about corporate information surveillance (for example: Diney, Hart and Mullen 2008; Hoofnagle and King 2008; McRobb and Stahl 2007; Milne, Rohm and Bahl 2004; O'Neil 2001; Sheehan 2002; Sheehan and Hoy 2000; Turow, Feldman and Meltzer 2005; Wang, Lee and Wang 1998). Some work has also been published about the relationship of the Internet and economic surveillance (for example: Campbell and Carlson 2002; Fernback and Papacharissi 2007; Odih 2007; Perri 6 2005; Robins and Webster 1999; Solove 2004, 2007; Turow 2006; Wall 2006).

Mark Andrejevic (2002, 2004) and Josh Lauer (2008) argue that the work of being watched in respect to the media is a form of exploitation and productive labour. Andrejecvic, based on Sut Jhally's (1987) notion of the work of watching, speaks of "the interactive capability of new media to exploit the work of being watched" (Andrejevic 2002, 239) and Lauer (2008) of consumer surveillance as alienated labour. Nicole Cohen (2008) has provided remarks on the political economy of Facebook. For her, the economic strategy of Facebook is the "valorization of surveillance" (Cohen 2008, 7). These approaches are critical in character and therefore important contributions to the research landscape. But they lack a systematic theoretical framework that shows how exploitation on the Internet exactly tacks place. There is also a lack of discussion and application of the Marxian categories of class and surplus value that are crucial for the concept of exploitation.

This overview shows that web 2.0 is a relatively novel topic in the discussions about Internet surveillance and that systematic critical political economy approaches that give a detailed analysis of capital accumulation on web 2.0 and show the underlying strategies, mechanisms, and interests as well as the role of surveillance are largely missing. The next section aims to contribute to the correction of this deficit.

6. Web 2.0, Capital Accumulation, and Surveillance

The rise of popular Internet platforms that are based on user-generated content, co-creation, information consumers/users as producers (prosumers, produsers), such as Facebook (created in 2004), YouTube (2005), Wikipedia (2001), Myspace (2003), Twitter (2006), Flickr (2003), hi5 (2004), Photobucket (2003), or Youporn (2005), and usage experiences have created new narratives about changes of the Internet and society. Many scholars and citizens now claim that a new world wide web has emerged – "web 2.0". So for example Axel Bruns sees the rise of produsage – the "hybrid user/producer role which inextricably interweaves both forms of participation" (Bruns 2008: 21) as the central characteristic of web 2.0. He argues that produsage "harnesses the collected, collective intelligence of all participants" (1), that it allows "participation in networked culture" (17), that "open participation" (24, 240) is a key principle of produsage, that a reconfiguration of democracy may result from web 2.0

(34), and that Flickr, YouTube, MySpace and Facebook are environments of "public participation" (227f). He envisions a "produsage-based, participatory culture" (256) and "a produsage-based democratic model" (372). In relation to social networking sites, Albrechtslund uses the term participatory surveillance for arguing that "the practice of online social networking can be seen as empowering, as it is a way to voluntarily engage with other people and construct identities, and it can thus be described as participatory" (…) However, to participate in online social networking is also about the act of sharing yourself – or your constructed identity – with others. (…) In this case, participatory surveillance is a way of maintaining friendships by checking up on information other people share" (Albrechtslund 2008). Albrechtslund takes the term participatory surveillance from Mark Poster (1990, 69), who first utilized, but did not define it. Whitaker (1999), Campbell and Carlson (2002), Cascio (2005) speak of the emergence of a "participatory panopticon". Koskela (2006, 175) argues the webcams are empowering and "contribute to the 'democratization' of surveillance". Dennis (2008, 350) speaks of the emergence of a "participatory/social panopticon". For Haggerty (2006, 28), reading weblogs is a form of surveillance that allows "for a leisurely scrutiny of the ruminations and images of otherwise unknown individuals". Haggerty (2006: 30) assumes that the synoptic web brings about democratic surveillance and says that the web "now provides opportunities for a virtual archaeology of the documentary traces of the powerful".

Dataveillance is the "systematic monitoring of people's actions or communications through the application of information technology" (Clarke 1988, 500). Clarke (1994) distinguishes between personal dataveillance that monitors the actions of one or more persons and mass dataveillance, where a group or large population is monitored in order to detect individuals of interest. In web 2.0, the boundaries between these two forms of surveillance become blurred: targeted advertising concerns the large mass of users of commercial web 2.0 platforms because by agreeing to terms of use they agree in most cases to the surveillance of their personal data and their usage behaviour, but this surveillance is fine-tuned in order to detect and store the individual differences and to target each user with a separate mass of advertisings. Web 2.0 surveillance is a form of personal mass dataveillance. Manuel Castells (2009) characterizes web 2.0 communication as mass self-communication.

Web 2.0 is mass communication because it can potentially reach a global audience, as in the posting of a video on YouTube, a blog with RSS links to a number of web sources, or a message to a massive e-mail list. At the same time, it is self-communication because the production of the message is self-generated, the definition of the potential receiver(s) is self-directed, and the retrieval of specific messages or content from the World Wide Web and electronic networks is self-selected (Castells 2009, 55).

Web 2.0 surveillance is directed at large user groups who help to hegemonically produce and reproduce surveillance by providing user-generated (self-produced) content. We can therefore characterize web 2.0 surveillance as mass self-surveillance.

So the claim of some is that the web and surveillance on the web become more democratic and participatory. In participatory democracy theory, participation is a broad notion of grassroots control and decision-making that also extends to the economy. A participatory economy requires a "change in the terms of access to capital in the direction of more nearly equal access" (Macpherson 1973, 71) and "a change to more nearly equal access to the means of labour" (73). In a participatory society, extractive power is reduced to zero (74). A participatory society equalizes the access to the means of life, the means of labour, and the protection against invasion by others (access to civil and political liberties). "Genuine democracy, and genuine liberty, both require the absence of extractive powers" (121). Participatory democracy therefore requires for Macpherson that the means and the output of labour are no longer a private property, but become a common property, which is "the guarantee to each individual that he will not be excluded from the use or benefit […]; private property is created by the guarantee that an individual can exclude others from the use or benefit of something" (124). Participatory democracy involves "the right to a share in the control of the massed productive resources" (137). A democratic economy furthermore involves "the democratising of industrial authority structures, abolishing the permanent distinction between 'managers' and 'men'" (Pateman 1970, 43). Pateman terms the grassroots organization of firms and the economy in a participatory democracy "self-management". In order to assess if "web 2.0" is participatory, one therefore has to analyze its ownership structures.

One method for ranking website access is to count the number of unique visitors per website in a country for a duration of one month. Table 2 shows, based on this method, which web 2.0 platforms are among the top 50 websites accessed in the USA in July 2009. If we define web 2.0 platforms as world wide web systems that are not predominantly sites for information consumption or search, but offer functions that support social networking, community building, file sharing, co-operative information production, and interactive blogging – platforms that are more systems of communication and co-operation than systems of cognition (for this definition see 2008), then this allows us to analyze the role web 2.0 platforms play on the www: 13 of 50 websites can be classified as web 2.0 platforms (=26.0%). These 13 platforms account for 532 million out of a total of 1916 million monthly usages of the 50 top websites in the US (=27.7%). If 26.0% of the top 50 US websites are web 2.0 platforms and these platforms account for 27.7% of usages, then this means that claims that the web has been transformed into a new web that is predominantly based on sharing, co-operation, and community building are vastly overdrawn. The predominant usage type of the Internet in the US is the access to sites that allow information search, provide information-, shopping- and email-services. Web 2.0 platforms have become more important, but they do not dominate the web. 12 of 13 of the web 2.0 platforms that are among the top 50 US websites are profit-oriented, 11 of them are advertising-based. An exception is Wikipedia, which is non-profit and advertising-free.

Rank	Website	Ownership	Country	Year of Domain Creation	Economic Orientation	Unique Users per Month (million)	Ownership of uploaded data	Advertising
4	Facebook	Facebook Inc.	USA	2004	Profit, advertising	91	License to use uploaded content	Targeted advertising
6	YouTube	Google Inc.	USA	2005	Profit, advertising	72	License to use uploaded content	Targeted advertising
8	Wikipedia	Wikimedia Foundation	USA	2001	Non-profit, non-advertising	67	Creative commons	No advertising
9	MySpace	MySpace Inc. (News Corporation)	USA	2003	Profit, advertising	63	License to use uploaded content	Targeted advertising
14	Blogspot	Google Inc.	USA	2000	Profit, advertising	49	License to use uploaded content	Targeted advertising
19	Answers	Answers Corporation	USA	1996	Profit, advertising	39	License to use uploaded content	Targeted advertising
22	Wordpress	Automattic Inc.	USA	2000	Profit, advertising	28	License to use uploaded content	Targeted advertising
23	Photobucket	Photobucket.com LLC	USA	2003	Profit, advertising	28	License to use uploaded content	Targeted advertising
26	Twitter	Twitter Inc.	USA	2006	Profit, no advertising	27	No license to use uploaded content	No advertising
31	Flickr	Yahoo! Inc.	USA	2003	Profit, advertising	21	License to use uploaded content	Targeted advertising
32	Blogger	Google Inc.	USA	1999	Profit, advertising	20	License to use uploaded content	Targeted advertising
44	eHow	Demand Media Inc.	USA	1998	Profit, advertising	14	License to use uploaded content	Targeted advertising
49	eZineArticles	SparkNet Corporation	USA	1999	Profit, advertising	13	No license to use uploaded content	Targeted advertising
						532		

Table 2: Web 2.0 platforms that are among the top 50 websites in the USA (data source: quantcast.com, US site ranking, August 13, 2009), ownership rights and advertising rights of the 13 most-used Web 2.0 platforms in the USA (data source: terms of use and privacy policies)

Advertising and targeted-advertising are the most important business model among these web 2.0 sites. However, there are some sites that combine this accumulation model with the accumulation model of selling special services to users. So for example Flickr, an advertising-based photo sharing community, allows uploading and viewing images for free, but sells additional services such as photo prints, business cards, photo books. WordPress uses advertising, but also generates revenue by selling VIP blog hosting accounts that have monthly subscription rates, and services such as extra storage space, customized styles, a video blogging service, ad-free blogs, and blogs with an unlimited number of community members. Twitter was at the time of writing in August 2009 a profit-oriented corporation without a business model that does not use advertising. This means that Twitter is highly likely to introduce an accumulation model in the next few years because otherwise it will go bankrupt. According to my empirical sample, 92.3% of the most frequently used web 2.0 platforms in the US and 87.4% of monthly unique web 2.0 usages in the USA are corporate-based, which shows that the vast majority of popular web 2.0 platforms are mainly interested in generating monetary profits and that the corporate web 2.0 is much more popular than the non-corporate web 2.0.

Google owns three of the 11 web platforms listed in table 2. 18 human and corporate legal persons own 98.8% of Google's common stock, Google's 20 000 employees, the 520 million global Google users, the 303 million users of YouTube, and the 142 million users of Blogspot/Blogger are non-owners of Google[4]. All analyzed web 2.0 platforms have to guarantee for themselves a right to display user-generated content, otherwise they are unable to operate and survice. However, table 2 shows that 10 of the 13 web 2.0 sites guarantee themselves in their terms of use a license for usage of user-generated data, which is a de-facto ownership right of the data because such a license includes the right to sell the content. Furthermore 11 of the 13 web 2.0 platforms guarantee themselves the right to store, analyze, and sell the content and usage data of their users to advertising clients that are enabled to provide targeted, personalized advertisements. This means that the vast majority of the web 2.0 companies in our sample exert ownership rights on user-generated content and user behaviour data. Web 2.0 companies own the data of the users, whereas the users do not own a share of the corporations. This is an asymmetric economic power relation.

Corporations that are profit-oriented and accumulate capital by online advertising and in some cases by selling special services operate the vast majority of web 2.0 plat-

[4] Data: Google SEC Filing Proxy Statements 2008. Number of worldwide Internet users: 1 596 270 108 (internetworldstats.com, August 14, 2009)
3 month average number of worldwide Google users (alexa.com, August 14, 2009): 32.671% of worldwide Internet users (520 million users)
3 months average number of worldwide YouTube users (alexa.com, August 14, 2009): 18.983% (303 million users)
3 month average number of worldwide Blogger/Blogspot users: (alexa.com, August 14, 2009): 8.869% (142 million users)

forms. Corporate web 2.0 platforms attract a large majority of users. A few legal persons own the companies that operate web 2.0 platforms, whereas the millions of users have no share in ownership. However, with the help of legal mechanisms (terms of use, privacy policies) most web 2.0 corporations acquire the ownership rights to use and sell user-generated content and to analyze user data and behaviour for implementing third-party operated targeted advertisements in order to accumulate capital. There is a highly asymmetrical ownership structure: web 2.0 corporations accumulate ever more capital that is owned by a few legal persons and not by the users, whereas user data are dispossessed by the firms in order to generate money profit. Web 2.0 does not extend democracy beyond the political sphere into culture and the economy. It does not maximize the developmental powers of humans, it mainly maximizes the developmental powers of an economic class that owns web platforms and holds the extractive power to dispossess users and to exploit workers and users in order to accumulate capital. We can conclude that from the perspective of participatory democracy theory, web 2.0 is not a participatory techno-social system because it is based on capitalist ownership and accumulation structures that benefit the few at the expense of the many and access is stratified.

This analysis confirms the views of Thomas Mathiesen who argues that the Internet is an undemocratic synopticon, in which the many observe the few, and that this does not bring about a "democratic system where everyone can particpate in interaction" (Mathiesen 2004, 100).

The Internet becomes to a considerable extent a part of the synoptical system, in as much as it is, to a substantial degree, dominated by powerful economic agents – from newspapers and television agencies to owners having economic capital to invest in sales of lucrative merchandise, including pornography. To the same degree, the structure becomes characterised by a one-way flow, from the relatively few in control of economic capital, symbolic capital and technical know-how, to the many who are entertained or who buy the products" and are thereby silenced (Mathiesen 2004, 100).

"A basic feature of the Internet is, in other words, that it constitutes an interactive one-way medium, not an interactive two-way or multi-way medium. The agenda is set by those with economic, symbolic or technical capital" (Mathiesen 2004, 100f). The Internet is therefore in its corporate form for Mathiesen a "system of silencing".

Given these empirical results, it seems feasible to theorize the contemporary "web 2.0" not as a participatory system, but by employing more negative, critical terms such as class, exploitation, and surplus value. Such an alternative theory of web 2.0 can here only be hinted at briefly (for a detailed discussion see Fuchs 2010). It is based on the approach of the critique of the political economy of media and information. Felicity Brown (2006) calls for a combination of the critical political economy of communication and surveillance studies. "The critical political economy of communication has a particularly important role in analysing the mutually productive relationship between surveillance practices and the Internet. In particular, the intense monitoring of cyberspace by private corporations seeking information on consumer behaviour is worthy of critique" (Brown 2006, 10).

Marx highlights exploitation as the fundamental aspect of class in another passage where he says that "the driving motive and determining purpose of capitalist production" is "the greatest possible exploitation of labour-power by the capitalist" (Marx 1867, 449). He says that the proletariat is "a machine for the production of surplus-value", capitalists are "a machine for the transformation of this surplus-value into surplus capital" (Marx 1867, 742). Whereas Marx had in his time to limit the notion of the proletariat to wage labour, it is today possible to conceive the proletariat in a much broader sense as all those who directly or indirectly produce surplus value and are thereby exploited by capital. This includes besides wage labour also houseworkers, the unemployed, the poor, migrants, retirees, students, precarious workers – and also the users of corporate web 2.0 platforms and other Internet sites and applications. Hardt and Negri (2004) use the term multitude for this multidimensional proletariat of the 21st century.

For Marx, the profit rate is the relation of profit to investment costs: p = s / (c + v) = surplus value / (constant capital (=fixed costs) + variable capital (=wages)). If Internet users become productive web 2,0 produsers, then in terms of Marxian class theory this means that they become productive labourers who produce surplus value and are exploited by capital because for Marx productive labour generates surplus. Therefore the exploitation of surplus value in cases like Google, YouTube, MySpace, or Facebook is not merely accomplished by those who are employed by these corporations for programming, updating, and maintaining the soft- and hardware, performing marketing activities, and so on, but by them, the users, and the produsers that engage in the production of user-generated content. New media corporations do not (or hardly) pay the users for the production of content. One accumulation strategy is to give them free access to services and platforms, let them produce content, and to accumulate a large number of produsers that are sold as a commodity to third-party advertisers. Not a product is sold to the users, but the users are sold as a commodity to advertisers. The more users a platform has, the higher the advertising rates can be set. The productive labour time that is exploited by capital on the one hand involves the labour time of the paid employees and on the other hand all of the time that is spent online by the users. For the first type of knowledge labour, new media corporations pay salaries. The second type of knowledge is produced completely for free. There are neither variable nor constant investment costs. The formula for the profit rate needs to be transformed for this accumulation strategy:

p = s / (c + v1 + v2), s … surplus value, c … constant capital, v1 … wages paid to fixed employees, v2 … wages paid to users

The typical situation is that v2 => 0 and that v2 substitutes v1. If the production of content and the time spent online were carried out by paid employees, the variable costs would rise and profits would therefore decrease. This shows that produsage in a capitalist society can be interpreted as the outsourcing of productive labour to users who work completely for free and help maximizing the rate of exploitation (e = s / v,

= surplus value / variable capital) so that profits can be raised and new media capital may be accumulated. Again, this situation is one of infinite over-exploitation. Capitalist produsage is an extreme form of exploitation, in which the produsers work completely for free.

That surplus value generating labour is an emergent property of capitalist production, means that production and accumulation will break down if this labour is withdrawn. It is an essential part of the capitalist production process. That produsers conduct surplus-generating labour, can also be seen by imagining what would happen if they would stop using platforms like YouTube, MySpace, and Facebook: The number of users would drop, advertisers would stop investments because no objects for their advertising messages and therefore no potential customers for their products could be found, the profits of the new media corporations would drop, and they would go bankrupt. If such activities were carried out on a large scale, a new economy crisis would arise. This thought experiment shows that users are essential for generating profit in the new media economy. Furthermore they produce and co-produce parts of the products, and therefore parts of the use value, exchange value, and surplus value that are objectified in these products.

Dallas Smythe (1981/2006) suggests that in the case of media advertisement models, the audience is sold as a commodity to advertisers: "Because audience power is produced, sold, purchased and consumed, it commands a price and is a commodity. […] You audience members contribute your unpaid work time and in exchange you receive the program material and the explicit advertisements" (Smythe 1981/2006, 233, 238). With the rise of user-generated content, free access social networking platforms, and other free access platforms that yield profit by online advertisement – a development subsumed under categories such as web 2.0, social software, and social networking sites –, the web seems to come close to accumulation strategies employed by the capital on traditional mass media like TV or radio. The users who google data, upload or watch videos on YouTube, upload or browse personal images on Flickr, or accumulate friends with whom they exchange content or communicate online via social networking platforms like MySpace or Facebook, constitute an audience commodity that is sold to advertisers. The difference between the audience commodity on traditional mass media and on the Internet is that in the latter case the users are also content producers; there is user-generated content, the users engage in permanent creative activity, communication, community building, and content-production. That the users are more active on the Internet than in the reception of TV or radio content is due to the decentralized structure of the Internet, which allows many-to-many communication. Due to the permanent activity of the recipients and their status as produsers, we can say that in the case of the Internet the audience commodity is a produser commodity. The category of the produser commodity does not signify a democratization of the media towards a participatory or democratic system, but the total commodification of human creativity. During much of the time that users spend online, they produce profit for large corporations like Google, News Corp. (which owns MySpace), or Yahoo! (which owns Flickr). Advertisements on the Internet are

frequently personalized; this is made possible by surveilling, storing, and assessing user activities with the help of computers and databases. This is another difference from TV and radio, which provide less individualized content and advertisements due to their more centralized structure. But one can also observe a certain shift in the area of traditional mass media, as in the cases of pay per view, tele-votes, talkshows, and call-in TV and radio shows. In the case of the Internet, the commodification of audience participation is easier to achieve than with other mass media.

The importance of the produsage commodity and extractive power as principles of the contemporary web 2.0 is evidenced by the continuing absolute and relative rise of Internet advertising profits. In 2008, Internet advertising was the third-largest advertising market in the USA and the UK. Internet advertising profits were only exceeded in these two countries by advertising in newspapers and on TV (IAB Internet Advertising Revenue Report 2008: 14, Ofcom Communications Market Report 2009: 36).

Surveillance in corporate web 2.0 is surveillance of produsers who dynamically and permanently create and share user-generated content, browse profiles and data, interact with others, join, create, and build communities, and co-create information. The corporate web platform operators and their third party advertising clients continuously monitor and record personal data and online activities, they store, merge, and analyze collected data. This allows them to create detailed user profiles and know about the personal interests and online behaviours of the users. Web platform operators sell the Internet produsers as a commodity to advertising clients. Money is exchanged for the access to user data that allows economic surveillance of the users. The exchange value of the Internet produsage commodity is the money value that the operators obtain from their clients, its use value is the multitude of personal data and usage behaviour that is dominated by the commodity and exchange value form. The surveillance of the produsers' permanently produced use values, i.e. personal data and interactions, by corporations allows targeted advertising that aims at luring the produsers into consumption and at manipulating their desires and needs in the interest of corporations and the commodities they offer. Internet produsers are first commodified by corporate platform operators who sell them to advertising clients and this results second in an intensified exposure to commodity logic. They are double objects of commodification, they are commodities themselves and through this commodification their consciousness becomes objects of commodity logic in the form of the permanent exposure to advertisements.

The Marxian cycle of capital accumulation allows distinguishing between workplace surveillance, workforce surveillance, and consumer surveillance. On web 2.0, producers are consumers and consumes producers of information. Therefore, producer surveillance and consumer surveillance merge into web 2.0 produser surveillance. Web 2.0 surveillance of workplace and workforce (producer surveillance) is at the same time consumer surveillance and vice versa.

Privacy statements are the legal mechanisms that guarantee that personalized advertising can be operated on web platforms. Users have hardly any choice not to agree, if they want to interact with others and make use of the technical advantages

web 2.0 poses, they have to agree to these terms. Privacy statements are totalitarian mechanisms that are necessarily not democratically controlled by the users, but under the control of corporations.

"The panoptic sort is a difference machine that sorts individuals into categories and classes on the basis of routine measurements. It is a discriminatory technology that allocates options and opportunities on the basis of those measures and the administrative models that they inform" (Gandy 1993, 15). It is a system of power and disciplinary surveillance that identifies, classifies, and assesses (Gandy 1993, 15). Produsage commodification on web 2.0 is a form of panoptic sorting (Gandy 1993): it identifies the interests of users by requiring them to input standardized information, it classifies them into consumer groups by surveilling their personal data and usage behaviour, and assesses their interests in comparison to other consumers and in comparison to available advertisements that are then targeted at the users.

Foucault characterized surveillance: "He is seen, but he does not see; he is the object of information, never a subject in communication" (Foucault 1977, 200). With the rise of "web 2.0", the Internet has become a universal communication system, which is shaped by privileged data control by corporations that own most of the communication-enabling web platforms and by the state that can gain access to personal data by law. On the Internet, the separation between "objects of information" and "subjects in communication" that Foucault (1977, 200) described for historical forms of surveillance no longer exists, by being subjects of communication on the Internet, users make available personal data to others and continuously communicate over the Internet. These communications are mainly mediated by corporate-owned platforms, therefore the subjects of communication become objects of information for corporations and the state in surveillance processes. Foucault argues that power relations are different from relationships of communication, although they are frequently connected (Foucault 1994, 337). "Power relations are exercised, to an exceedingly important extent, through the production and exchange of signs", "relationships of communication […] by modifying the field of information between partners, produce effects of power" (Foucault 1994, 338). In web 2.0, corporate and state power is exercised through the gathering, combination, and assessment of personal data that users communicate over the web to others, and the global communication of millions within a heteronomous society produces the interest of certain actors to exert control over these communications. In web 2.0, power relations and relationships of communication are interlinked. In web 2.0, the users are producers of information (produsers, prosumers), but this creative communicative activity enables the controllers of disciplinary power to closely gain insights into the lives, secrets, and consumption preferences of the users.

7. How aware are Web 2.0 Users of Online Surveillance?

Andrés Sanchez (2009) analyzes the resistance of Facebook users against increased surveillance on the platform through the introduction of news feeds and mini feeds. He shows that there are potentials immanent in web 2.0 and social networking sites

for protest against web surveillance. The question if resistance to online surveillance is possible, depends on how conscious users are about potential threats. The author of this chapter conducted an online survey about surveillance on social networking sites (Fuchs 2009). 674 students from the city of Salzburg participated in the survey. The two following open-ended questions were part of the questionnaire: What are in your opinion the greatest advantages of social networking platforms as studiVZ, Facebook, MySpace, etc? What is your greatest concern about social networking platforms as studiVZ, Facebook, MySpace, etc? We identified 18 categories for the advantages and 16 categories for the disadvantages and analyzed the answers to the two open questions by content analysis (Krippendorff 2004) so that each text was mapped with one or more categories. The respondents tended to list more than one major advantage and disadvantage. Therefore each answer was mapped with more than one category in most cases.

Figure 2 presents the major advantages and disadvantages of social networking sites that our respondents mentioned.

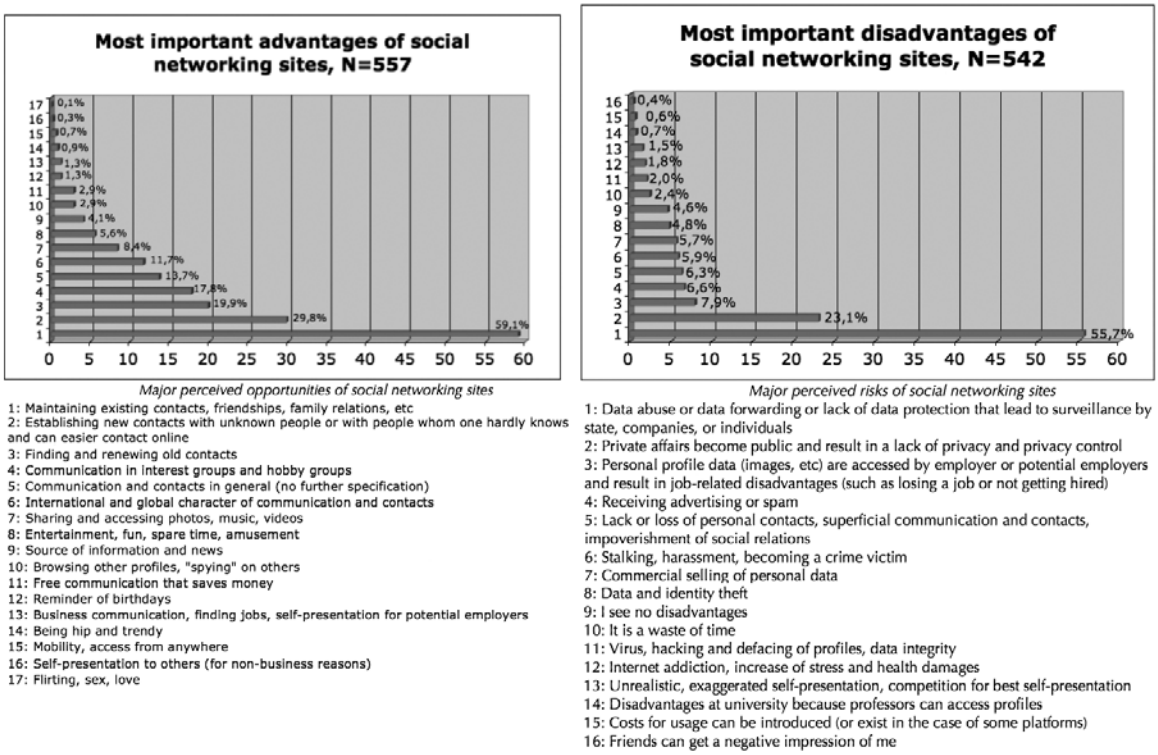

Figure 2: Major perceived opportunities and risks of social networking sites

Here are some typical answers given by students when asked about the main advantages of SNS: “Remaining in contact after a joint period of studying, collaboration, a journey or simply a period of more intensive contact has come to an end, e.g. after relocating etc. You also know years later how/where to find people” (respondent #47). “You have all your friends in one spot, you do not permanently have to ask for mobile phone numbers” (#82). “You can find old acquaintances and stay in touch with them. I have also already contacted students in order to co-operate with them in vari-

ous seminars and internships" (#93). "Such platforms make it easier to stay in contact also across larger distances – for example with former schoolmates" (#104). "Connects people from all over the world and you find old and new friends" (#123). "It is easy to establish contact with colleagues that you have thus far hardly known" (#199). "To come in touch or stay in touch with people that have the same interests as you; you can build up a small network of friends and acquaintances; finding others and being found" (#267). "Networking of students, exchange between like-minded people" (#377). These typical examples show that students think that social relationship management is an important advantage of SNS. SNS are social spaces for maintaining and extending social networks.

Some typical answers given when asked about the main disadvantages were: "Big Brother is watching you" (respondent #6), "spying by employers" (#65), "My data are sold for advertising. You become too "transparent" for strangers" (#93), "Personal data are sold to different corporations" (#109), "Data surveillance, the transparent human, strangers gain insights into privacy, selling of private data and browsing behaviour" (#224), "To be "spied on" by a third party" (#409), "The surveillance society" (#454). These examples show that surveillance and surveillance for economic ends are big concerns of students who use SNS.

55.7% of the respondents say that political, economic, or personal surveillance as a result of data abuse, data forwarding, or a lack of data protection is a main threat of social networking sites. The data of our survey show that 59.1% consider maintaining existing contacts and 29.8% establishing new contacts as major advantage of social networking sites, whereas 55.7% say that surveillance as a result of data abuse, data forwarding, or a lack of data protection is a major threat of such platforms. Communication and the resulting reproduction and emergence of social relations are overwhelmingly considered as major advantage, potential surveillance overwhelmingly as major disadvantage. The impression of the majority of the respondents is that social networking sites enable communicative advantages that are coupled with the risk of surveillance and reduced privacy. How can we explain that they are willing to take the surveillance risk that they are knowledgeable and conscious about? Communication and surveillance are antagonistic counterparts of the usage of commercial social networking platforms: Our data show that students are heavily using social networking sites and are willing to take the risk of increased surveillance although they are very well aware of surveillance and privacy risks.

The potential advantages seem to outstrip the potential disadvantages. It is not an option for them not to use social networking platforms because they consider the communicative and social opportunities associated with these technologies as very important. At the same time they are not stupid, uncritical, or unaware of potential dangers, but rather very conscious of the disadvantages and risks. They seem to fear that they miss social contacts or will have disadvantages if they do not use platforms such as studiVZ, Facebook, MySpace. Not using these technologies or stopping using them is clearly not an option for most of them because it would result in disadvantages such as reduced social contacts and the feeling of not participating in something

that has become important for the young generation. The crucial aspect of the antagonism between communicative opportunities and the surveillance risk is that alternative social networking platforms that are non-commercial and non-profit and therefore do not have an interest in economic surveillance and that see privacy as a fundamental right that needs to be well-protected under all circumstances, are hardly available or hardly known. Commercial profit-oriented sites such as studiVZ, Facebook, or MySpace have reached a critical mass of users that is so large that these commercial providers have become cultural necessities for most young people. For non-commercial platforms, it is hard to compete with these economic corporations because the latter have huge stocks of financial means (enabled by venture capital or parent companies such as News Corporation or Holtzbrinck), personnel, and technological resources. Capitalist business interests and the unequal distribution of assets that is characteristic for the capitalist economy result in the domination of markets by a handful of powerful corporations that provide services and that make influence by non-commercial, non-profit operators difficult. Given the fact that students are knowledgeable of the surveillance threat, it is obvious that they are willing to use alternative platforms instead of the major corporate ones, if such alternatives are available and it becomes known that they minimize the surveillance threat. Not students are to blame for potential disadvantages that arise from their usage of social networking platforms that in the opinions of our respondents threaten privacy and advance surveillance, but the corporations that engage in surveillance and enable surveillance are to blame. Corporate social networking platforms are for example not willing to abstain from surveillance for advertising because they have profit interests. The antagonism between communicative opportunities and the surveillance threat is not created by students' and young people's usage of social networking platforms, but by the economic and political logic that shapes social networking corporations' platform strategies.

8. Conclusion: Is Resistance Possible?

Gandy argues that an alternative to opt out solutions of targeted advertising are opt-in solutions that are based on the informed consent of consumers. When individuals "wish information or an information-based service, they will seek it out. IT is not unreasonable to assume that individuals would be the best judge of when they are the most interested and therefore most receptive to information of a particular kind. Others with information to provide ought to assume that, unless requested, no information is desired. This would be the positive option. Through a variety of means, individuals would provide a positive indication that yes, I want to learn, hear, see more about this subject at this time. Individuals should be free to choose when they are ready to enter the market for information" (Gandy 1993, 220). "The value in the positive option is its preservation of the individual's right to choose" (Gandy 1993, 221). Garfinkel (2000) argues that opt-in is far better than opt-out because it is "ethically perverse. Consumers shouldn't have to beg marketers not to send them mail" (Garfinkel 2000, 170). Culnan and Bies argue that opt-in is a form of procedural justice

and a fair information practice. "Fair information practices are procedures that provide individuals with control over the disclosure and subsequent use of their personal information and govern the interpersonal treatment that consumers receive" (Culnan and Bies 2003, 330). Bellman et al. (2004) conducted a survey (N=534 responses from 38 countries) that showed that the highest average agreement (6.30, 7 point Likert scale, 1=strongly disagree, 7=strongly agree) was achieved for the statement "web sites should not use personal information for any purpose unless it has been authorized by the individuals who provide the information". 79% of US Internet users preferred opt-in solutions in 2000 (Pew Internet & American Life Project Poll, May 2000). 85% said in 2006 that it is very important that they can control who has access to their personal information (Pew Internet & American Life Project Poll, December 2006). These results show that users consider opt in strongly desirable and opt out undesirable. Within capitalism, forcing corporations by state laws to implement opt-in mechanisms is certainly desirable, but at the same time it is likely that corporations will not consent to such policies because opt-in is likely to reduce the actual amount of surveilled and commodified user data significantly, which results in a drop of advertising profits. "Historically, members of information intensive industries have tended to be reactive, rather than pro-active, with regard to privacy policy" (Gandy 2003/2007, 296). Therefore capitalist interests are likely to naturally oppose the consumer interest of opt-in. Empirical studies confirm that given self-regulation, only a small portion of companies implements privacy policies that adhere to fair information practices (Federal Trade Commission 2000, Ryker et al. 2002). "Businesses have a great stake in access to individuals' personal information and tend to favor policies that allow self-regulation of privacy practices in engaging with customers" (Starke-Meyerring and Gurak 2007, 301).

In order to circumvent the large-scale surveillance of consumers, producers, and consumer-producers, movements and protests against economic surveillance are necessary. Kojin Karatani (2005) argues that consumption is the only space in capitalism where workers become subjects that can exert pressure by consumption boycotts on capital. I do not think that this is correct because also strikes show the subject position of workers that enables them to boycott production, to cause financial harm to capital, and to exert pressure in order to voice political demands. However, Karatani in my opinion correctly argues that the role of the consumer has been underestimated in Marxist theory and practice. That in the contemporary media landscape media consumers become media producers who work and create surplus value shows the importance of the role of consumers in contemporary capitalism and of "the transcritical moment where workers and consumers intersect" (Karatani 2005, 21). For political strategies this brings up the actuality of an associationist movement that is "a transnational association of consumers/workers" (Karatani 2005, 295) that engages in "the class struggle against capitalism" of "workers qua consumers or consumers qua workers" (Karatani 2005, 294).

As our study has shown, many young people seem to be aware of the surveillance risks of web 2.0. They possess a critical potential that could be transformed into protest and social movement action if it is adequately triggered and organized.

I recommend that critical citizens, critical citizens' initiatives, consumer groups, social movement groups, critical scholars, unions, data protection specialists/groups, consumer protection specialists/groups, critical politicians, critical political parties observe closely the relationship of surveillance and corporations and document instances where corporations and politicians take measures that threaten privacy or increase the surveillance of citizens. Such documentation is most effective if it is easily accessible to the public. The Internet provides means for documenting such behaviour. It can help to watch the watchers and to raise public awareness. In recent years, corporate watch organizations that run online watch platforms have emerged.

Examples for corporate watch organizations are:

- CorpWatch Reporting (http://www.corpwatch.org),
- Transnationale Ethical Rating (http://www.transnationale.org),
- The Corporate Watch Project (http://www.corporatewatch.org),
- Multinational Monitor (http://www.multinationalmonitor.org),
- crocodyl: Collaborative research on corporations (http://www.crocodyl.org),
- Endgame Database of Corporate Fines (http://www.endgame.org/corpfines.html),
- Corporate Crime Reporter (http://www.corporatecrimereporter.com),
- Corporate Europe Observatory (http://www.corporateeurope.org),
- Corporate Critic Database (http://www.corporatecritic.org).

There are certainly limits of watchdog organizations and initiatives. They are generally civil society projects because it is unlikely that big corporations or governments support initiatives that tend to criticize corporations and governments with big amounts of money. Therefore such projects are frequently based on precarious, self-exploitative labour, and are confronted with a lack of resources such as money, activists, time, infrastructure, influence, etc. If political or economic institutions offer support, then there is a danger that they try to influence the activities of such projects, which can severely damage or limit the autonomy and critical facility of such projects. They seem to be trapped in an antagonism between resource precariousness and loss of autonomy that is caused by the fact that the control of resources is vital for having political influence in contemporary society and that resources in this very society are unequally distributed so that corporations and established political actors have much more power and influence than other actors. Given this situation, it would be a mistake not to try to organize citizens' initiatives, but one should bear in mind that due to the stratified character of capitalism it is more likely that such initiatives will fail and remain unimportant than that they will be successful in achieving their goals.

There are no easy solutions to the problem of civil rights limitations due to electronic surveillance. Opting out of existing advertising options is not a solution to the

problem of economic and political surveillance. Even if users opt out, media corporations will continue to collect and assess certain data on them, to sell the users as audience commodity to advertising clients, and to give personal data to the police. To try to advance critical awareness and to surveil corporate and political surveillers are important political moves for guaranteeing civil rights, but they will ultimately fail if they do not recognize that electronic surveillance is not a technological issue that can be solved by technological means or by different individual behaviours, but only by bringing about changes of society. Therefore the topic of electronic surveillance should be situated in the context of larger societal problems in public discourse.

Another recommendation is to create non-commercial, non-profit social networking platforms on the Internet. It is not impossible to create successful non-profit Internet platforms, as the example of Wikipedia, which is advertising-free, has free access, and is financed by donations, shows. But the difficulty is that social networking platforms have to store large amount of data, especially profile data that contain images, videos, etc, which requires tremendous server capacities. It is certainly easier and probably more efficient to organize such huge data storage endeavours in the form of profit-oriented businesses. But this orientation at the same time brings about the risk of extended and intensified electronic surveillance. I am not saying that non-commercial, non-profit platforms are devoid of this risk, but that there is a reduced likelihood that electronic surveillance for economic reasons will take place on such platforms and an increased likelihood that such platforms will try to protect its users from state surveillance. Within capitalism, it is certainly very difficult to try to organize such non-profit online alternatives because everything that is non-profit and non-commercial tends to be confronted by shortages of resources, which makes sustainable performance difficult. Trying to organize alternatives might be precarious, difficult, and confronted with a high probability of potential failure. But the same time it might be the only constructive alternative to corporate control and corporate concentration processes in the Internet economy that tend to reinforce processes of economic and political electronic surveillance.

An example for an alternative social networking site is kaioo. It is operated by the Open Networx Initiative, which is a public trust crated in 2007. The users of kaioo can discuss and edit the terms of use and privacy terms in a wiki. Kaioo is advertising-free and non-profit.

An alternative Internet and alternative Internet platforms could provide the foundation for forms of online communication that are not based on economic surveillance. Slavoj Žižek argues in this context that "the digitalization of our daily lives, in effect, makes possible a Big Brother control in comparison with which the old Communist secret police supervision cannot but look like primitive child's play. Here, therefore, more than ever, one should insist that the proper answer to this threat is not retreat into islands of privacy, but an ever stronger socialization of cyberspace" (Žižek 2001, 256).

References

6, Perri. 2005. The personal information economy: trends in prospects for consumers. In *The glass consumer*, ed. Susanne Lace, 17-43. Birstol: Policy Press.

Albrechtslund, Anders. 2008. Online Social Networking as Participatory Surveillance. *First Monday* 13 (3).

Andrejevic, Mark. 2002. The work of being watched: interactive media and the exploitation of self-disclosure. *Critical Studies in Media Communication* 19 (2): 230-248.

———. 2004. *Reality TV. The work of being watched*. Lanham, MD: Rowman & Littlefield.

Bellman, Steven, Eric J. Johnson, Stephen J. Kobrin, Gerald L. Lohse. 2004. International differences in information privacy concerns: a global survey of consumers. *The Information Society* 20 (5): 313-324.

Brown, Felicity. 2006. Rethinking the role of surveillance studies in the critical political economy of communication. IAMCR Prize in Memory of Dallas W. Smythe 2006: http://www.iamcr.org/component/option,com_docman/task,doc_download/gid,31/ (accessed on August 28, 2009).

Bruns, Axel. 2008. *Blogs, Wikipedia, Second Life, and beyond. From production to produsage*. New York: Peter Lang.

Campbell John E. and Matt Carlson M. 2002. Panopticon.com: online surveillance and the commodification of privacy. *Journal of Broadcasting & Electronic Media* 46 (4): 586-606.

Cascio, Jamais. 2005. The rise of the digital panopticon. http://www.worldchanging.com/archives/002651.html (accessed on September 5, 2009).

Castells, Manuel. 2009. *Communication power*. Oxford: Oxford University Press.

Clarke, Roger. 1988. Information technology and dataveillance. *Communications of the ACM* 31 (5): 498-512.

———. 1994. Dataveillance: delivering '1984'. In *Framing technology: society, choice and change*, ed. Lelia Green and Roger Guinery, 117-130. Sydney: Allen & Unwin.

Cohen, Nicole S. 2008. The valorization of surveillance: towards a political economy of Facebook. *Democratic Communique* 22 (1): 5-22.

Culnan, Mary J and Robert J. Bies. 2003. Consumer privacy. Balancing economic and justice considerations. *Journal of Social Issues* 59 (2): 323-342.

Dennis, Kingsley. 2008. Keeping a close watch – the rise of self-surveillance and the threat of digital exposure. *The Sociological Review* 56 (3): 347-357.

Dinev, Tamara, Paul Hart and Michael R. Mullen. 2008. Internet privacy concerns and beliefs about government surveillance – an empirical investigation. *Journal of Strategic Information Systems* 17 (3): 214-233.

Federal Trade Commission. 2000. Privacy online: fair informatioon practices in the electronic marketplace.

http://www.ftc.gov/reports/privacy2000/privacy2000.pdf (accessed on September 5, 2009).

Fernback, Jan and Zizi Papacharissi. 2007. Online privacy as legal safeguard: the relationship among consumer, online portal, and privacy policies. New Media & Society 9 (5): 715-734.

Foucault, Michel. 1977. *Discipline & punish*. New York: Vintage.

———. 1994. *Power*. New York: New Press.

Fuchs, Christian. 2008. *Internet and society: social theory in the information age*. New York: Routledge.

———. 2009. *Social networking sites and the surveillance society. A critical case study of the usage of studiVZ, Facebook, and MySpace by students in Salzburg in the context of electronic surveillance*. Salzburg/Vienna: Research Group UTI.

———. 2010. Social Software and web 2.0: their sociological foundations and implications. In *Handbook of research on web 2.0, 3.0, and X.0: technologies, business, and social applications*, ed. San Murugesan. Hershey, PA: IGI-Global.

Gandy, Oscar H. 1993. *The panoptic sort. A political economy of personal information*. Boulder: Westview Press.

———. 2003. Data mining and surveillance in the post-9/11 environment. In *The intensification of surveillance*, ed. Kirstie Ball and Frank Webster, 26-41. London: Pluto Press.

———. 2003/2007. Public opinion survey and the formation of privacy policy. In *The surveilance studies reader*, Sean P. Hier and Josh Greenberg, 292-304. Berkshire: Open University Press.

Garfinkel, Simson. 2000. *Database nation*. Beijing: O'Reilly.

Gumpert, Gary and Susan J. Drucker. 2000. The demise of privacy in a private world. In *Cyberethics*, eds. Robert M. Baird, Reagan Ramsower and Stuart E. Rosenbaum, 171-187. Amherst, NY: Prometheus.

Haggerty, Kevin. 2006. The new politics of surveillance and visibility. In *Surveillance and visibility*, ed. Kevin Haggerty and Richard Ericson, 3-33. Toronto: University of Toronto Press.

Hardt, Michael and Antonio Negri. 2004. *Multitude*. New York: Penguin.

Harvey, David. 2010. *The enigma of capital*. London: Profile Books.

Hoofnagle, Chris Jay and Jennifer King. 2008. *What Californians understand about privacy online. Research Report*. Berkeley, CA: Samuelson Law, Technology & Public Policy Clinic, UC Berkeley Law.

Jhally, Sut. 1987. *The codes of advertising*. New York: Routledge.

Karatani, Kojin. 2005. *Transcritique: On Kant and Marx*. Cambridge, MA: MIT Press.

Koskela, Hille. 2006. 'The other side of surveillance': webcams, power and agency. In *Theorizing surveillance*, ed. David Lyon, 163-181. Portland, OR: Willan.

Krippendorff, Klaus. 2004. *Content analysis. An introduction to its methodology*. London: Sage. 2nd edition.

Lauer, Josh. 2008. Alienation in the informatione conomy: toward a marxist critique of consumer surveillance. In *Participation and media production*, ed. Nico Carpentier and Benjamin De Cleen, 41-53. Newcastle: Cambridge Scholars Publishing.

Lyon, David. 1994. *The electronic eye. The rise of surveillance society*. Cambridge: Polity.

———. 2001. *Surveillance society. Monitoring everyday life.* Buckingham: Open University Press.

Macpherson, Crawford Brough. 1973. *Democratic theory*. Oxford: Oxford University Press.

Marx, Gary T. 2007. Surveillance. In *Encyclopedia of privacy*, ed. William G. Staples, 535-544. Westport, CN: Greenwood Press.

Marx, Karl. 1857/58. *Grundrisse.* London: Penguin.

———. 1867. *Capital: Volume I.* London: Penguin.

———. 1885. *Capital: Volume II.* London: Penguin.

———. 1974*. On freedom of the press and censorship*. New York: McGraw-Hill.

Marx, Karl and Friedrich Engels (MEW) *Marx-Engels-Werke*. Berlin: Dietz.

Marx, Karl and Friedrich Engels. 1968. *Selected works in one volume*. London: Lawrence & Wishart.

Mathiesen, Thomas. 2004. Panopticon and synopticon as silencing systems. In *Silently silenced. Essays on the creation of acquiesence in modern society*, 98-102. Winchester: Waterside Press.

McRobb, Steve and Bernd Carsten Stahl. 2007. Privacy as a shared feature of the e-phenomenon. *International Journal of Technology and Management* 6 (2/3/4): 232-249.

Milne, George R., Andrew J. Rohm and Shalini Bahl. 2004. Consumers' protection of online privacy and identity. *Journal of Consumer Affairs* 38 (2): 217-232.

Moor, James H. 2000. Toward a theory of privacy in the information age. In *Cyberethics*, ed. Robert M. Baird, Reagan Ramsower and Stuart E. Rosenbaum, 200-212. Amherst, NY: Prometheus.

Negri, Antonio. 1991. *Marx beyond Marx*. London: Pluto.

Nock, Steven. 1993. *The costs of privacy: Surveillance and reputation in America*. New York: de Gruyter.

O'Neil, Dara. 2001. Analysis of Internet users' level of online privacy concerns. *Social Science Computer Review* 19 (1): 17-31.

Odih, Pamela. 2007. *Advertising in modern & postmodern times*. London: Sage.

Ogura, Toshimaru. 2006. Electronic government and surveillance-oriented society. In *Theorizing surveillance*, ed. David Lyon, 270-295. Portland, OR: Willan.

Pateman, Carole. 1970. *Participation and democratic theory*. Cambridge: Cambridge University Press.

Poster, Mark. 1990. *The mode of information*. Cambridge: Polity.

Robins, Kevin and Frank Webster. 1999. *Times of the technoculture*. New York: Routledge.

Ryker, Randy, Elizabeth Lafleur, Chris Cox and Bruce Mcmanis. 2002. Online privacy policies: an assessment of the fortune E-50. *Journal of Computer Information Systems* 42 (4): 15-20.

Sanchez, Andrés. 2009. The Facebook feeding frenzy: resistance-through-distance and resistance-through-persistence in the societied network. *Surveillance & Society* 6 (3): 275-293.

Sewell, Graham and James Barker. 2007. Neither good, nor bad, but dangerous: surveillance as an ethical paradox. In *The surveillance studies reader*, eds. Sean P. Hier and Josh Greenberg, 354-367. Maidenhead: Open University Press.

Sheehan, Kim Bartel. 2002. Toward a typology of Internet users and online privacy concerns. *The Information Society* 19 (1): 21-32.

Sheehan, Kim Bartel and Mariea Grubbs Hoy. 2000. Dimensions of privacy among online consumers. *Journal of Public Policy & Marketing* 19 (1): 62-73.

Smythe, Dallas W. 1981/2006. On the audience commodity and its work. In *Media and cultural studies*, eds. Meenakshi G. Durham and Douglas. M. Kellner, 230-256. Malden, MA: Blackwell.

Solove, Daniel J. 2004. *The digital person. Technology and privacy in the information age.* New York: New York University Press.

———. 2007. *The future of reputation. Gossip, rumor, and privacy on the Internet.* New Haven: Yale University Press.

Starke-Meyerring, Doreen and Laura Gurak. 2007. Internet. In *Encyclopedia of privacy*, ed. William G. Staples, 297-310. Westport, CN: Greenwood Press.

Turow, Joseph. 2006. Cracking the consumer code: advertisers, anxiety, and surveillance in the digital age. In *Surveillance and visibility*, ed. Kevin Haggerty and Richard Ericson, 279-307. Toronto: University of Toronto Press.

Turow, Joseph, Lauren Feldman and Kimberly Meltzer, 2005. *Open to Exploitation: American Shoppers Online and Offline* . Research Report. Annenberg Public Policy Center, University of Pennsylvania.

Wall, David S. 2006. Surveillant Internet technologies and the growth in information capitalism: spams and public trust in the information society. In *Surveillance and visibility*, ed. Kevin Haggerty and Richard Ericson, 340-362. Toronto: University of Toronto Press.

Wang, Huaiqing, Matthew K.O. Lee and Chen Wang. 1998. Consumer privacy concerns about Internet marketing. *Communications of the ACM* 41 (3): 63-70

Whitaker, Reginald. 1999. *The end of privacy.* New York: New Press.

Žižek, Slavoj. 2001. *Did somebody say totalitarianism?* London: Verso.