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Towards a theoretical model of social media surveillance in contemporary society

Abstract: 'Social media' like Facebook or Twitter have become tremendously popular in recent years. Their popularity provides new opportunities for data collection by state and private companies, which requires a critical and theoretical focus on social media surveillance. The task of this paper is to outline a theoretical framework for defining social media surveillance in the context of contemporary society, identifying its principal characteristics, and understanding its broader societal implications. Social media surveillance is a form of surveillance in which different forms of sociality and individuals different social roles converge, so that surveillance becomes a monitoring of different activities in different social roles with the help of profiles that hold a complex networked multitude of data about humans.

1 Introduction

The uncovering of the existence of the global internet surveillance system PRISM, in which Apple, Google, Microsoft, Facebook, Skype, Twitter and others participate, has shown the importance of understanding internet and social media surveillance.

'Social media' and 'web 2.0' are terms that have been employed in recent years to describe the information, communication, community, and colaboration features of blogs (e.g., Blogger), social networking sites (e.g., Facebook), video hosting platforms and sites (e.g., YouTube), wikis (e.g., Wikipedia) and microblogs (e.g., Twitter).

The task of this paper is to outline a theoretical framework for defining social media surveillance in the context of contemporary society, identifying its

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major characteristics, and understanding its main societal implications. First, we introduce a theoretical model of the information process. Then we introduce a theoretical model for conceptualizing modern society. These two models are then combined for the purpose of defining the social media surveillance process. Societal implications of social media surveillance are discussed and finally some conclusions are drawn.

2 The information process

In order to understand how internet surveillance works, we first need a model that explains how the human information process works. One such model is based on Hegelian dialectical philosophy, which allows us to identify three levels/stages of social life: cognition, communication and co-operation (Fuchs, 2008, 2010). In this dialectical approach, information is conceived as a dynamic threefold process, in which, based on subjective cognitive processes, social relations emerge (communication) in which new systems and qualities can be formed (co-operation). It is a threefold process of cognition, communication, and co-operation. The triad can also be seen as one of the individual, social relations, and social systems. This corresponds to the three steps of development in Hegelian dialectics (being-in-itself/identity, being-for-another, being-in-and-for-itself, see Hegel, 1812, 1830). The tripleC (CCC) information model is visualized in Figure 1. Figure 2 visualizes the dialectical process and its three dimensions.

Cognition, communication and co-operation form with nature a structural basis for social life. Individual action is the basis of communication, which in
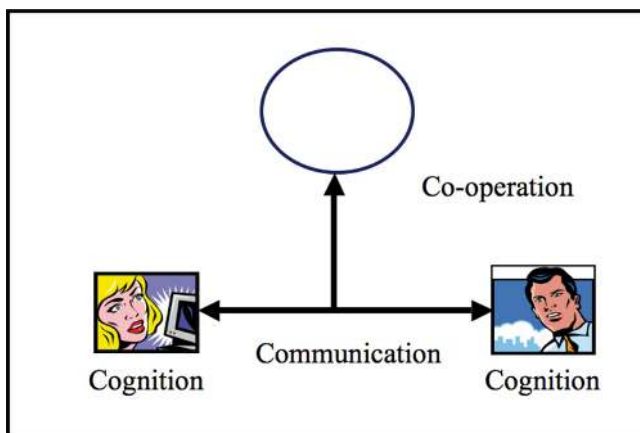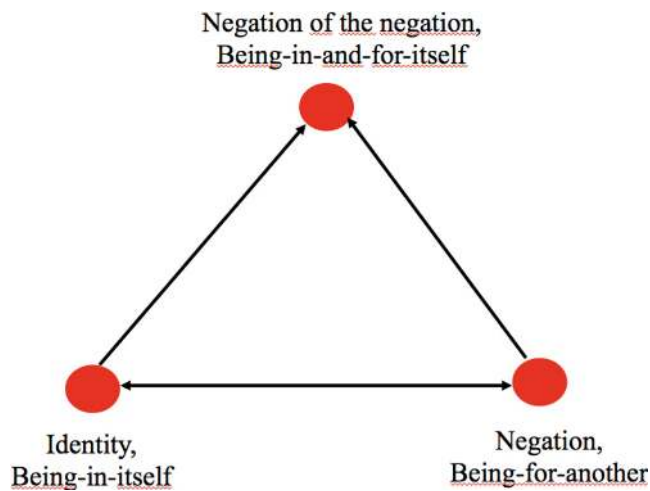

Figure 1: The information process.

Negation of the negation,
Being-in-and-for-itself

Identity,
Being-in-itself

Negation,
Being-for-another

Figure 2: Hegel's model of dialectics.

turn is the basis of corporate endeavors as well as community building. Media have always played an important role in these stages. Since they transform thought into digital content and transmit that content to other users, all media technologies have played a crucial role in these functions.

What is unique about social media is the fact that they collapse these three processes together. Individual cognition almost automatically becomes a matter of social relations, and a cooperative endeavor. For instance, one may write a reflexion on my profile. By default, other users will see this reflexion, and be able to respond to it. The reflexion becomes a statement towards others, and also becomes a project. If one wrote this statement on a word processor, it would remain in the first stage. If one wrote it on a conventional website, it would remain in the second stage. All media are social in the sense that they are tools of cognition. Some of them are social in the sense of allowing communication (e.g., the telephone). Some of them are also tools of co-operation (such as the internet, wikis, and computer-supported-cooperative-work (CSCW) tools). An important characteristic of 'social media' like Facebook is the convergence of the three spheres of sociality.

To understand social media surveillance, we not only need a model for understanding the underlying information processes, but also a model of society that allows understanding of the societal context of data processing.

3 A theoretical model of modern society

Modern society is based on the differentiation of social roles. In modern society, human beings act in different capacities in different social roles. Consider the

example of a modern middle-class office worker who also has roles as a husband, father, lover, friend, voter, citizen, child, fan, neighbor, to say nothing of the various associations to which he may belong. In these different roles, humans are expected to behave according to specific rules that govern the various social systems of which modern society is composed (such as the company, the schools, the family, the church, fan clubs, political parties, etc.).

Jürgen Habermas (1987, 1989) describes how modern society is grounded in different spheres, in which humans act in different roles. He says that modernity resulted in:

(a) the separation of the economy from the family and the household so that the modern economy (based on wage labor and capital) emerged,

(b) he rise of a political public sphere in which humans act as citizens who vote, hold a political opinion, etc., in contrast to the earlier monarchic system, in which political power was controlled by the monarch, aristocracy, and the church. This process includes the shift of the economy towards a capitalist economy grounded in private ownership of the means of production and on the logic of capital accumulation. The economy started to be no longer part of private households, but became organized with the help of large commodity markets that go beyond single households. The modern economy has become "a private sphere of society that [...] [is] publicly relevant" (Habermas, 1989, p. 19). The family started to be no longer primarily an economic sphere, but the sphere of intimacy and the household economy based on reproductive labor. This was connected to the separation of the private and the public sphere that is based on humans acting in different roles (Habermas, 1989, pp. 152, 154; see also Arendt, 1958, pp. 47, 68).

Habermas (1987) defines the economy and the state as systems that are guided by the steering media of money and power, respectively. The modern economy is the capitalist way of organizing production, distribution, and consumption, that is, it is a system that is based on the accumulation of money capital by the sale of commodities that are produced by workers who are compelled to sell their labor power as a commodity to owners of capital and means of production, who thereby gain the right to exploit labor for a specific time period. The modern political system is a bureaucratic state system in which liberal parliamentary democracy (including political parties, elections, parliamentary procedures), legal guarantees of bourgeois freedoms (freedoms of speech, assembly, association, the press, movement, ownership, belief and thought, opinion and expression), and the monopolization of the means of violence by coercive state apparatuses guarantee the reproduction of the existing social order.

Besides the capitalist economy and the state, modern society also consists of the cultural sphere that can be divided into a private and a public culture. Hannah Arendt stresses that the private sphere is a realm of modern society that functions as "a sphere of intimacy" (Arendt, 1958, p. 38) and includes family life as well as emotional and sexual relationships. Habermas adds to this analysis that consumption plays a central role in the private sphere: "On the other hand, the family now evolved even more into a consumer of income and leisure time, into the recipient of publicly guaranteed compensations and support services. Private autonomy was maintained not so much in functions of control as in functions of consumption" (Habermas, 1989, p. 156). He further-more points out that the private sphere is the realm of leisure activities: "Leisure behavior supplies the key to the floodlit privacy of the new sphere, to the externalization of what is declared to be the inner life" (Habermas, 1989, p. 159). In other words, the role of the private sphere in capitalism identified by Habermass as the sphere of individual leisure and consumption can be said to guarantee the reproduction of labor power so that the latter remains vital, productive, and exploitable.

But there are also social forms of organizing leisure and consumption, as, for instance, fan communities, amateur sports clubs, churches, etc. This means that there are both individual and social forms of organizing everyday life. Together they form the sphere of culture understood as the sphere in which mundane everyday life is organized, and meaning is given to the world. The basic role of culture in society is that it guarantees the reproduction of the human body and mind, and includes, on the one hand, activities like sports, sexuality, health and social care, beauty care, and, on the other, activities like education, knowledge production (e.g., in universities), art, literature, etc. If these activities are organized on an individual basis, then they take place in the private sphere; if they are organized on a social basis outside the home and the family, then they take place in the socio-cultural sphere.

The private and the socio-cultural sphere together form the cultural sphere, or what Habermas (1987, chapter VI. 1) terms the lifeworld: It is a realm of society where communicative action takes place that allows definitions of a situation and participants to obtain an understanding of the subjective, social and objective world. It enables the "continual process of definition and redefi-nition" (Habermas, 1987, pp. 121 f.). "Language and culture are constitutive of the lifeworld itself" (Habermas, 1987, p. 125). Culture can only be constituted through the speech-acts of communication. It has a social character. The life-world also contains "culturally transmitted background knowledge" (Haber-mas, 1987, p. 134). "The structures of the lifeworld lay down the forms of the intersubjectivity of possible understanding. [...] The lifeworld is, so to speak,

the transcendental site where speaker and hearer meet, where they can reciprocally raise claims that their utterances fit the world (objective, social, or subjective), and where they can criticize and confirm those validity claims, settle their disagreements, and arrive at agreements" (Habermas, 1987, p. 134). The lifeworld is the cultural realm of meaning-making, situation definition, and where an understanding of the world is gained.

According to Habermas (1989), the realms of the systems of the economy and the state, on the one hand, and the lifeworld (culture in our model), on the other hand, are mediated by what he terms the public sphere or civil society. Hegel, who is considered one of the most influential writers on civil society (Anheier and Toepfler, 2010, p. 338), described civil society as political, and as a sphere that is separate from the state and from the private life of the family (Hegel, 1821, §§ 157, 261). Jürgen Habermas' (1989) seminal work describes that eighteenth century France and Germany were characterized by a separation of spheres. Civil society was the private "realm of commodity exchange and social labor" (Habermas, 1989, p. 30) distinct from the public sphere and the sphere of public authority. This understanding was reflected in liberal market-driven civil society conceptions of thinkers like Locke and Smith that positioned economic man at the heart of civil society (Ehrenberg, 1999). The structural transformation of the public sphere in the 19th and 20th century, according to Habermas, resulted in an increasing collapse of boundaries between spheres so that "private economic units" attained "quasi-political character" and from "the midst of the publicly relevant sphere of civil society was formed a repoliticized social sphere" that resulted in a "functional complex that could no longer be differentiated according to criteria of public and private" (Habermas, 1989, p. 148). In other words, the structural transformation Habermas describes meant the emergence of the modern economy as a separate powerful sphere of modern society and the separation of the economy from civil society. This notion of civil society could be found in the works of Montesquieu, Rousseau and Tocqueville and has today become the common understanding (Ehrenberg, 1999). In later works, Habermas (1987, p. 320), as a result, describes contemporary modern society as consisting of systems (economic system, administrative system) and the lifeworld (private sphere, public sphere). Civil society as part of the lifeworld now consists of "associational networks" that "articulate political interests and confront the state with demands arising from the life worlds of various groups" (Habermas, 2006, p. 417). Civil society's "voluntary associations, interest groups, and social movements always strive to maintain a measure of autonomy from the public affairs of politics and the private concerns of economics" (Ehrenberg, 1999, p. 235). Habermas (2006) mentions as examples for civil society actors: social movements, general interest groups, advocates

for certain interests, experts, and intellectuals. Qualities and concepts of civil society mentioned in the literature include: voluntariness, nongovernmental associations, healthy democracy, public sphere, exchange of opinions, political debate, self-organization, self-reflexion, non-violence and struggle for egalitarian diversity (Keane, 2010; Kenny, 2007; Salzman, 2011; Sheldon, 2001, pp. 62 f.).

Salzman (2011, p. 199) mentions "environmental groups, bowling leagues, churches, political parties, neighborhood associations, social networking internet sites" as examples for civil society organizations. Keane (2010) adds charities, independent churches and publishing houses as examples. In civil society theory, the concept of hegemony in particular has been used to stress civil society's aspects of contradiction, power, counter-power, ideology, and its dialectical relation to the state and the economy (Anheier and Toepfler, 2010, pp. 408 ff.).

Habermas (1987, p. 320) mentions the following social roles that are constitutive for modern society: employee, consumer, client and citizen. Other roles, for example, wife, husband, houseworker, immigrant, convicts, etc. can certainly be added. So, what is constitutive for modern society is not just the separation of spheres and roles, but also the creation of power structures, in which roles are constituted by power relations (e.g., employer–employee, state bureaucracy–citizen, citizen of a nation state–immigrant, manager–assistant, dominant gender roles–marginalized gender roles). Power means in this context the disposition of actors over means that allow them to control structures and influence processes and decisions in their own interest at the expense of other individuals or groups.

Modern society is based on political and economic exchange relations. Based on different roles that humans have in the lifeworld, they exchange products of their social actions with goods and services provided by the systems of the state and the economy. Table 1 gives an overview of these exchanges and specifies their two sides. The systems of the state and the lifeworld stand in modern society in exchange relations. Lifeworld communication is, according to Habermas (1987), based mainly on communicative action and is not mediated by money and power; rather, they are realms of altruistic and voluntary behavior.

Systemic logic and exchange logic are not automatic features of these realms, it can however shape them. The political public sphere, civic cultures, and private life are not independent from the political and the economic systems: They create legitimacy and hegemony (political public, civic cultures) in relation to the political system as well as consumption needs and the reproduction of labor power in relation to the economy (private life, family).

Table 1: A typology of different forms of non-institutional action (adapted from: Offe, 1985).

Goals	Recognized as legitimate *(Civil society)*	Illegitimate
Binding for a wider community	Socio-political and socio-economic movements (= political public sphere). 1) NGOs: more hierarchical, formal, lobbying 2) Social movements: grassroots, informal, protest	Terrorism
Non-binding for a wider community	Socio-cultural movements (= civic cultures). Consensus, shared interests and values, affinity. Examples: friendship networks, neighborhoods, work networks, churches, sects, sports teams, fan communities, professional organizations/associations.	Crime

Claus Offe (1985) distinguishes between socio-political movements, which want to establish binding goals for a wider community and are recognized as legitimate, and socio-cultural movements, which want to establish goals that are not binding for a wider community (retreat) and are considered legitimate. Further forms of non-institutional action would be private crime (non-binding goals, illegitimate) and terrorism (binding goals, illegitimate). Offe's distinction between socio-political and socio-cultural movements has been reflected in Touraine's (1985) distinction between social movements and cultural movements. Table 1 summarizes the discussion. We add to this distinction one between socio-political and socio-economic movements.

The struggles of socio-economic movements revolved around the production and distribution of material resources that are created and distributed in the economic system. They are focused on questions of the production, distribution and redistribution of material resources. One modern socio-economic movement is the working-class movement that struggles for the betterment of living conditions as they are affected by working conditions and thereby opposes the economic interests of those who own capital and the means of production. In the history of the working-class movement, there have been fierce debates about the role of reforms and revolution. A more recent debate concerns the role and importance of non-wage workers in the working class movement (Cleaver, 2000). Another socio-economic movement is the environmental movement that struggles for the preservation and sustainable treatment of the external nature of humans (the environment). Whereas the working-class movement

concentrates on relationships between organized groups of human beings (classes) with definite interests, the ecological movement concentrates on the relationship between human beings and their natural environment. Both relations (human–human, human–nature) are at the heart of the economy and interact with each other.

Socio-political movements are movements that struggle for the recognition of the collective identities of certain groups in society via demands on the state. They concentrate on struggles that relate, for instance, to gender, sexual orientation, ethnicity and origin, age, neighborhood, peace or disability. Examples are the feminist movement, the gay-rights movement, the anti-racist movement, the youth movement, the peace movement, the anti-penitentiary movement, the anti-psychiatry movement, etc. The common characteristic of these movements is that their struggles concentrate on recognizing specific groups of people as having specific rights, ways of life, or identities. So, for example, the peace and human rights movement struggles for the recognition of the basic right of all humans to exist free from the threat of being killed or coerced by violence. As another example, racist movements struggle for the recognition of specific groups (like white people) as either superior and other groups as inferior, or so culturally or biologically different that they need to be separated.

Socio-cultural movements are groups of people that have shared interests and practices relating to ways of organizing their private lives. Examples include friendship networks, neighborhood networks, churches, sports groups, fan communities, etc.

Figure 3 visualizes the model of modern society introduced in this section. The model is grounded in the social theory insight that the relationship between structures and actors is dialectical and that both levels continuously create each other (for dialectical solutions of the structure-agency problem in social theory, see: Archer, 1995; Bhaskar, 1993; Bourdieu, 1986; Fuchs, 2003a, 2003b; Giddens, 1984).

Given that the topic of this paper is social media, the question arises how to locate the media more generally within a model of society. Media can be defined as structures that enable and constrain human information processes of cognition, communication and cooperation, which are practices that produce and reproduce informational structures. In modern society, media can be organized in different forms. Murdock (2011, p. 18) argues that the media can be organized within the capitalist economy, the state or civil society, and this in turn results in three different political economies of the media that are, respectively, based on commodities, public goods or gifts. In our model of society, civil society is made up of the socio-political, the socio-economic and the socio-cultural spheres, which corresponds to the three organizational forms of the
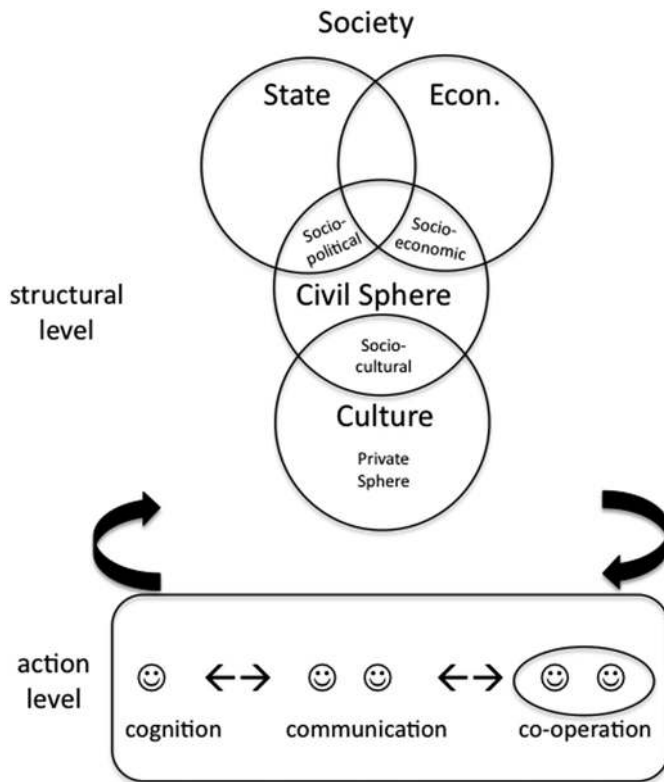
Figure 3: A model of modern society.

Table 2: A typology of roles in modern society.

Political roles	Socio-political roles
Citizen, politician, bureaucrat, political party member.	Privacy advocate, electoral reform advocate, feminist activist, gay-rights activist, anti-racist advocate, youth movement advocate, peace movement activist, anti-penitentiary advocate, anti-psychiatry activist, non-governmental organization member/activist, non-parliamentary political activist (student groups, non-parliamentary fascist groups, non-parliamentary leftist groups, etc.).
Economic roles	**Socio-economic roles**
Capital owner, entrepreneur, manager, employee, prosumer, self-employee.	Labor activist, union member, consumer protectionists, environmental activist.
Private roles	**Socio-cultural roles**
Lover, family member, friend, consumer, audience member, user.	Sports group member, fan community member, parishioner, member of a sect or cult, professional organization and association, self-help group, neighborhood association, etc.

media that Murdock identifies. Therefore we identify socio-political (organized by the state as public service media), socio-economic (organized by private companies as commercial media) and socio-cultural (organized by citizens and public interest groups as civil and alternative media) forms of the media. Although there are three organizational forms of the media, there is a specific political economy of the media realm that allocates resources to different media types to a different degree, generally putting civil-society media at a disadvantage, and favoring capitalist media organizations.

Based on the distinction of different spheres of modern society, we can discern various social roles that are part of the subsystems of modern society (see Table 2).

Based on the theoretical models of the information process and modern society, we can next characterize social media surveillance.

4 Social media surveillance

Defining social media surveillance requires an understanding of surveillance. Many existing definitions of surveillance stress, on the one hand, processes of information collection and processing, and, on the other hand, processes shaping behaviors (controlling, managing, governing, supervising, influencing or regulating behaviors) (Fuchs, 2011). Many existing definitions lack further theoretical grounding of the underlying social processes that are said to shape human behavior. Surveillance in society involves the collection, storage, processing and assessment of data about humans or groups of humans by an actor in order to advance the latter's goals by violence exerted with the help of the collected information upon the humans under watch. Based on the works of Johan Galtung (1990), violence can be defined as "avoidable insults to basic human needs, and more generally to life, lowering the real level of needs satisfaction below what is potentially possible" (Galtung, 1990, p. 292). Violence can, according to Galtung (1990), be divided into three principal forms: direct violence (through physical intervention; an event), structural violence (through state or organizational mandate; a process), and cultural violence (dehumanizing or otherwise exclusionary representations; an invariance). These forms operate through the denial of four basic needs: survival needs (through killing and exploitation), well-being needs (through maiming, sanctions, and exploitation), identity needs (through desocialization, resocialization and segmentation), and freedom needs (through repression, detention, expulsion, marginalization and fragmentation) (Galtung, 1990). Surveillance gathers data about

humans in order to exert actual or potential direct, structural, or cultural violence against individuals or groups. The violence involved in surveillance either operates as actual violence (e.g., in the case where the Nazis used census data and calculating machines in order to determine who had Jewish origins and should be deported and killed in the Nazi extermination camps; see Black, 2012) or as the threat of violence in order to discipline human behavior (e.g., when a company announces that it monitors its employee's internet use in order to prevent private Facebook use during working hours). Both actual violence and threats of violence constitute violence: "Threats of violence are also violence" (Galtung, 1990, p. 292).

The study of social media surveillance is due to the novelty of blogs and social networks like Facebook and Twitter (see Fuchs, Boersma, Albrechtslund, and Sandoval, 2012; Trottier, 2012; Trottier and Lyon, 2012). Based on the theoretical assumptions about the information process (the tripleC model introduced in section 2) and society (the model of modern society in section 3), we can describe social media surveillance based on social theory. Thus far, social theory foundations of social media surveillance have been missing in the literature.

Some constitutive features of social media like Facebook are the following:

Integrated sociality: Social media enable the convergence of the three modes of sociality (cognition, communication, cooperation) in an integrated sociality. This means, for example, on Facebook an individual creates a multimedia content like a video on the cognitive level, publishes it so that others can comment (the communicative level), and allows others to manipulate and remix the content, so that new content with multiple authorship can emerge. One step does not necessarily result in the next, but the technology has the potential to enable the combination of all three activities in one space. Facebook, by default, encourages the transition from one stage of sociality to the next, within the same social space.

Integrated roles: Social media like Facebook are based on the creation of personal profiles that describe the various roles of a human being's life. In contemporary modern society, different social roles tend to converge in various social spaces. The boundaries between public life and private life as well as the work place and the home have become fuzzy and liquid. As we have seen, Habermas identified systems (the economy, the state) and the lifeworld as central realms of modern society. The lifeworld can be further divided into culture and civil society. We act in different social roles in these spheres: for example, as employees and consumers in the economic systems, as clients and citizens in the state system, as activists in the socio-political and socio-economic spheres, as lovers, consumers or family members in the private sphere, or as

fan community members, parishioners, professional association members, etc. in the socio-cultural sphere (see Table 2). A new form of liquid and porous sociality has emerged in which we partly act in different social roles in the same social space. On social media like Facebook, we act in various roles, but all of these roles become mapped onto single profiles that are observed by different people that are associated with our different social roles. This means that social media like Facebook are social spaces in which social roles tend to converge and become integrated in single profiles.

Integrated and converging surveillance on social media: On social media like Facebook, various social activities (cognition, communication, co-operation) in different social roles that belong to our behavior in systems (economy, state) and the lifeworld (the private sphere, the socio-economic sphere, the socio-political sphere, the socio-cultural sphere) are mapped to single profiles. In this mapping process, data about (a) social activities within (b) social roles are generated. This means that a Facebook profile holds (a1) personal data, (a2) communicative data, (a3) social network data/community data in relation to (b1) private roles (friend, lover, relative, father, mother, child, etc.), (b2) civic roles (socio-cultural roles as fan community members, neighborhood association members, etc.), (b3) public roles (socio-economic and socio-political roles as activists and advocates), (b4) systemic roles (in politics: voter, citizen, client, politician, bureaucrat, etc.; in the economy: worker, manager, owner, purchaser/consumer, etc.). The different social roles and activities tend to converge, for instance, in the situation where the workplace is also a playground, where friendships and intimate relations are formed and dissolved and where spare time activities are conducted. The emergence of social media has intensified the historical trend of the break-down of the boundaries between play and labor, work time and leisure time, production and consumption, the factory and the household, public and private life. Concepts such as digital labor, online prosumption, consumption work, produsage, crowdsourcing, freeconomy or playbor (play labor) have been used to describe transformations in the media, culture and society associated with social media. What Zygmunt Bauman (2005) has alternately called liquid life and liquid world is both precondition and result of social media. The liquefaction of the social is both medium and outcome of social media.

Figure 4 visualizes the surveillance process on one single social media system (such as Facebook, etc.). The total social media surveillance process is the combination and network of a multitude of such processes.

Social media surveillance monitors converging social activities of humans in their converging social roles on social media platforms in order to exert actual or potential violence. Let us briefly come back to the two examples from
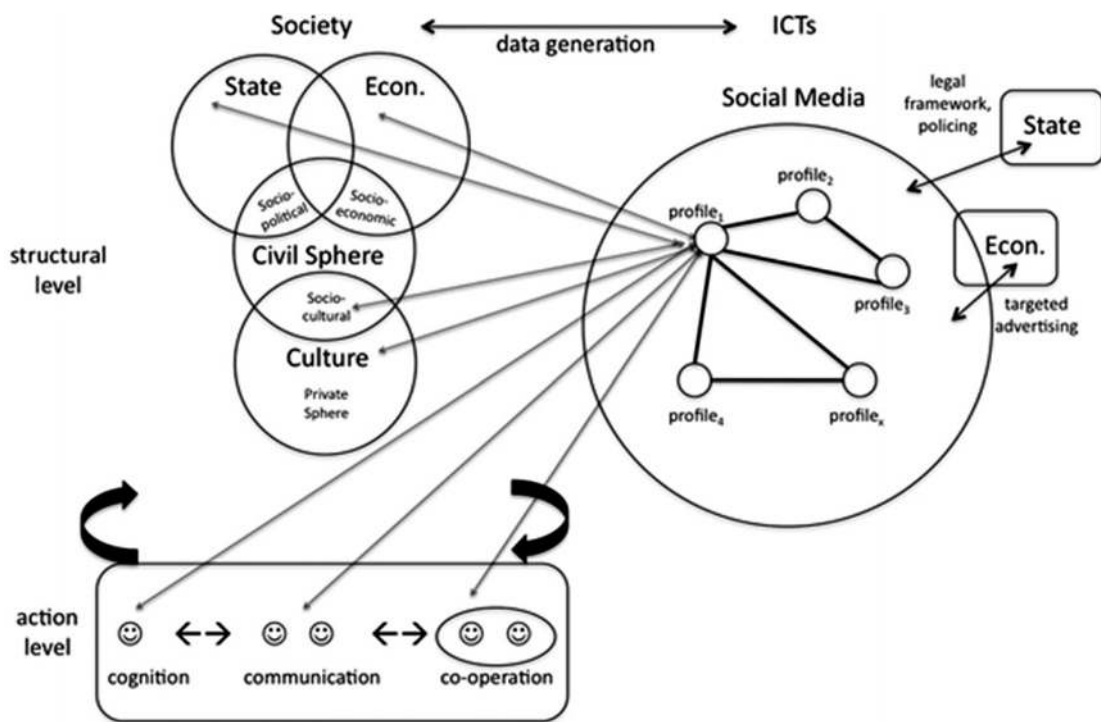
Figure 4: The process of social media surveillance.

the introduction: The UK police plans to expand social media surveillance in order to prevent online crime/terrorism and to catch actual criminals and terrorists. The idea is to monitor social media content and behavior in order to identify potential offenders so that their future behavior can be prevented by disciplinary action on the part of the state and that actual offenders can be brought to trial. The basic idea is to use social media data in order to exert state violence against those who do not respect the rules set by existing laws, that is, to limit the basic human need of free movement in cyberspace for those who offend against these laws, and to prevent criminal and terrorist behavior by threatening potential offenders with the announcement that social media are being monitored and misconduct will be punished by the violent actions of the state. In the case of the monitoring of employees' social media behavior by employers, the basic idea is to gather data about social media use in order to prevent employees from exerting the human need of information and communication via internet use during work time; work time being seen as profit-generating time that benefits the company. Employees are to be controlled by using the threat of disciplinary action and the announcement that their online behavior is being monitored. In both cases, social media surveillance conducted by the police and by companies, the idea is to gather data in order to discipline behavior that is thought to violate set rules, or to punish those who violate

those rules. In both cases, violence shall be inflicted in order to defend existing norms. A crucial consequence of social media surveillance is that violence is not only inflicted on those who actually violate rules set by the state or companies, but that a large store of personal data about citizens and employees is generated that can be used in various contexts for exerting violence against these groups. The actual data gathering for preventive and disciplinary means turns into a large surveillance machine that can harm humans in various contexts if the data are stored, known, analyzed, assessed, networked, or if predictive analysis is performed based on them.

Social media surveillance is a form of surveillance in which different both forms of sociality (cognition, communication, co-operation) and different social roles of individuals (in the economy, politics, and civil society) converge so that surveillance becomes a monitoring of different (partly converging) activities in different, partly converging, social roles with the help of profiles that hold a complex networked multitude of data about humans.

Social media surveillance is a techno-social process in which human actors make use of surveillance technologies for monitoring human activities on social media. They can make use of various technologies for this purpose: One of them is the so-called Deep Packet Inspection (DPI) internet surveillance. DPI internet surveillance technologies are communication surveillance tools that are able to monitor the traffic of network data that is sent over the internet at all seven layers of the OSI reference model of internet communication, which corresponds to the five layers of the TCP/IP. This means that DPI surveillance includes the surveillance of internet content data (for a detailed analysis of the societal and ideological impacts of DPI, see Fuchs, 2013). In addition, human actors can rely on open source intelligence (OSINT), which refers to search engines and other software that can retrieve relevant content from publically accessible social media content. They may also install 'Trojans' or other malicious software on a target's computing device in order to directly intercept their communication on social media. Less explicitly technological means for retrieving social media content include issuing legal requests for data to social media companies as well as manually searching for content. However, these last two examples nevertheless rely on technologies such as computing devices, servers and modems that are integral to the functioning of social media platforms.

Social media surveillance is not only a process the communication and information processes of which need to be theorized. Also its implications for society need to be further discussed, which is the goal of the next section.

5 Discussion: Categorical suspicion, social sorting and surveillance creep – 3 societal implications of social media surveillance

A first societal implication of surveillance has to do with the phenomenon of categorical suspicion. Categorical suspicion means that due to surveillance technologies "everyone becomes a reasonable target. The new forms of control are helping to create a society where everyone is guilty until proven innocent; technologies that permit continuous, rather than intermittent, monitoring encourage this" (Marx, 1988, p. 219). Since 9/11, surveillance has been intensified and as a result, contemporary "forms of surveillance, more than ever before, create categories of suspicion" (Lyon, 2003a, p. 10).

The focus on fighting and preventing terrorism and the creation of a culture of categorical suspicion is one of the societal contexts of social media surveillance. Social media contain a lot of data about personal interests and social relations. The police and secret services have therefore developed a special interest in being able to monitor social media usage, as evidenced by the existence of the global PRISM internet surveillance program. Police surveillance of social media in the situation of post-9/11 categorical suspicion can easily result in the constant monitoring of social media activities of citizens and the police assumption that all users are actual or potential criminals and terrorists until proven innocent. There is also the danger that social media surveillance conducted by the police is especially directed towards groups that already face discrimination in Western societies, like immigrants, people of color, people of Arabic or African background, the poor, the unemployed, or political activists, and that thereby stereotypes and discrimination are deepened and reified.

A second societal implication of surveillance is the actual or potential fostering of social sorting as a specific form of discrimination. Oscar H. Gandy (1993) has in this context coined the notion of the panoptic sort. It is a system of power and disciplinary surveillance that identifies, classifies, and assesses (Gandy, 1993, p. 15). David Lyon (2003b) considers Gandy's notion of the panoptic sort in relation to computers and the internet as social sorting. In newer works, Gandy (2009) has pointed out the connection of social sorting and cumulative disadvantages: "Cumulative disadvantage refers to the ways in which historical disadvantages cumulate over time, and across categories of experience" (Gandy, 2009, p. 12). Thus, membership in a targeted group as well as other kinds of disadvantage become a dominant factor in determining future negative social outcomes: "People who have bad luck in one area, are likely to suffer from bad luck in other areas as well" (Gandy, 2009, p. 116).

This means that if you have dark skin, are poor, live in a deprived neighborhood, have become unemployed or ill, etc., you are more likely to be discriminated against and flagged as a risk group by data mining and other social sorting technologies. The arbitrary disadvantages an individual has suffered then cumulate and result in further disadvantages that are enforced by predictive algorithms which calculate based on certain previous behavior that an individual is part of a risk group and should therefore be discriminated against (by not being offered a service, being offered a lower quality service at a higher price – e.g., in the case of a loan or mortgage –, by being considered as a criminal or terrorist, etc.). "Once they have been identified as criminals, or even as potential criminals, poor people, and black people in particular, are systematically barred from the opportunities they might otherwise use to improve their status in life" (Gandy, 2009, p. 141).

Social media profiles are a historical accumulation and storage of online behavior and interests. Social media tend to never forget what users are doing online, but tend to keep profiles of personal data and thereby provide a foundation for the algorithmic or human analysis of who belongs to a so-called risk group and should be treated in a special way. Commercial social media surveillance uses specific data from social media profiles for targeting advertising and providing special offers. As a result, privileged groups tend to be treated differently than the poor and outcast. Another effect of commercial social media surveillance is that consumer culture and the fostering of a world that is based on the logic of commodities has become almost ubiquitous on the internet. If state intelligence agencies obtain access to social media profile data and combine such data with state-administered records (such as databases covering crime, welfare and unemployment benefits, health records, etc.), then discrimination based on cumulative disadvantages can be advanced. The quality of social media to cover and store data about various social roles and social activities that converge in social media profiles allows commercial and state surveillance to use social media data for advancing discrimination that is based on algorithmic profiling and predictions as well as the networking of data from various sources. Data collection on commercial social media is permanent, constant, totalizing, and works in real time and covers a lot of activities in various everyday social roles of billions of humans worldwide. The potential for unfair treatment and racist, classist, sexist, or other forms of discrimination are thereby greatly enhanced.

Gary Marx has introduced the notion of the surveillance creep: "As powerful new surveillance tactics are developed, the range of their legitimate and illegitimate use is likely to spread" (Marx, 1988, pp. 2 f.; see also Lyon, 2007, p. 201). Social media like Facebook tend to naturalize the idea of humans being

under constant surveillance. It becomes a habitual behavior of social media users to make parts of their profiles and content visible to the public and to laterally observe what others are doing and posting. Publicity is part of the attraction of social media.

Commercial social media, just like, for example, location-based services on mobile phones, the prevalence of CCTV in public spaces, surveillance as entertainment in popular culture (reality TV, paparazzi journalism, etc.) or security checks as entrance conditions to transportation, are practices of surveillance creep in everyday life. Social media sites like Facebook contain advertising schemes that repurpose personal information into marketing data. Also, their compliance with law enforcement and security agencies suggests a surveillance creep where this same information is repurposed as evidence and intelligence. The effect is that contemporary society is tending to become ever more controlled by commercial enterprise and the logic of policing and law and order. As more and more social life is represented as content on social media, this content can become the foundation of the commodification, commercialization and the policification of society and everyday life.

6 Conclusion

Social media surveillance is a relatively new form of surveillance that is based on making visible the convergence of social roles and social activities to powerful institutions, especially companies and the state. As we spend more and more time online on social media, a lot of our everyday activities in different roles during a lot of our working and free time become accessible, traceable, analyzable in real time to institutions with whom we do not necessarily have a relationship of trust. The prevalent danger of the intensification and extension of surveillance via social media and other technologies is that we create a society that is totalitarian in the double-sense of being a dictatorship of the market and capitalist logic as well as a state dictatorship. The logics of commercial surveillance and state surveillance in fact tend to interact. One example is the use of credit card data by the police to locate terrorists. Ben-Hayes (2012) argues in this context that a surveillance-industrial complex is emerging. The interlocking of state and commercial surveillance poses considerable threats for society.

We see two important implications of this analysis. First, we think it is important to conduct such analyses of the internet and social media in a critical way. We do not only need Internet Studies and Social Media Studies, but rather

we need Critical Internet Studies and Critical Social Media Studies (Fuchs and Dyer-Witheford, 2013). The surveillance implications of social media for society require us to give special attention to the power structures as well as actual and potential negative consequences of social media for society. We therefore hold that it is of utmost importance to foster research that uncovers how ICTs can harm humans in societal contexts of crisis, inequality and asymmetric power structures.

Second, we think that it is politically important that tendencies towards the creation of a totalitarian surveillance society are resisted and that movements and civil society groups that engage in this resistance are supported.

One example of such civil society action is the State of Surveillance project (www.thebureauinvestigates.com/2011/12/01/the-state-of-surveillance-the-data) operated by Privacy International and the Bureau of Investigative Journalism that has published a database of companies that sell communications surveillance technologies. A related project is the WikiLeaks' SpyFiles (spyfiles.org) database that leaked documents showing how various companies from different countries engage in fostering the surveillance of the internet, mobile phones, and location-based technologies. The Electronic Frontier Foundation operates a section on its website that documents problems of surveillance on social networking sites (www.eff.org/issues/social-networks). Austrian legal students have founded the initiative Europe vs. Facebook that has filed 22 complaints against privacy violations conducted by Facebook to the Irish Data Protection Commissioner (europe-v-facebook.org/EN/en.html). In 2008, the Canadian Internet Policy and Public Interest Clinic (CIPPIC) filed a complaint containing 22 alleged privacy violations against Facebook to the Office of the Privacy Commissioner of Canada (cippic.ca/en/news/339/54/CIPPIC-files-privacy-complaint-against-Facebook). There are also alternative social media projects that try to establish a surveillance-free, privacy-respecting, non-commercial internet. Examples include the social networking site projects Diaspora (https://joindiaspora.com/), N-1 (https://n-1.cc), identi.ca (https://identi.ca/), StatusNet (http://status.net/), Quitter (http://useqwitter.com/), Crabgrass (https://we.riseup.net/crabgrass/), Friendica (http://friendica.com/)[1] In 2014, the social network Ello started presenting itself as an advertising-free alternative to Facebook, but in fact it is just like Facebook being driven by profit interests, is funded by venture capital, and seeks a commodification strategy that allows capital accumulation.

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[1] For an overview, see: http://en.wikipedia.org/wiki/Comparison_of_software_and_protocols_for_distributed_social_networking

Foucault (1980) and Giddens' (1985) concepts of power and surveillance are fairly different, but both agree that there is a necessary relationship between power and counter-power. In relationship to surveillance this means that Foucault and Giddens think that wherever there is a specific form of disciplinary power and control, there is also the counter-power of those under surveillance. We do, however, think that both Foucault and Giddens are overestimating counter-power as a deterministic necessity. The existence of the NSA's large-scale PRISM surveillance system that systematically monitors the content of activities of internet users on platforms and IT systems operated by Microsoft, Apple, Google, Facebook, Yahoo, Skype and Paltalk remained unknown to the public for a long-time. There was large-scale surveillance, but no resistance to it. Only Edward Snowden's leaks to the public enabled the latters gain knowledge of the system, thus creating preconditions for public resistance. The PRISM case shows that surveillance is often hidden, covert, invisible, and not known to those who are being monitored. Knowing that you are being monitored is, however, a first precondition for resisting it. There is no necessity that surveillance leads to resistance. Resistance is always a possibility, but no necessity. Given the non-deterministic relationship of surveillance and resistance in particular and of power and counter-power in general, we have chosen not to make resistance part of the model of social media surveillance that is visualized in Figure 4. This does, however, not mean that we do not consider resistance as possible or important; it rather means that we do not like Giddens and Foucault see an automatism of resistance. Resistance is an activity that needs to be organized and mobilized, which requires knowledge, resources and collective action.

New forms of social media and internet surveillance are constantly evolving. It is therefore necessary to continue to study these developments in a critical way, so as to foster the institutional conditions for conducting Critical Social Media Studies, and to ensure the diffusion of such critical knowledge into the sphere of civil society and activism that tries to bring about political change and which prevents the emergence of a totalitarian surveillance society thereby fostering the use of ICTs in ways that advance the establishment of a participatory, sustainable, and equitable information society.

References

Anheier, H. K., & Toepfler, S. (Eds.) 2010. *International encyclopedia of civil society*. Heidelberg: Springer.

Archer, M. S. 1995. *Realist social theory: The morphogenetic approach*. Cambridge: Cambridge University Press.

Arendt 1958. *The human condition*. Chicago: University of Chicago Press. 2nd edition.

Bauman, Z. 2005. *Liquid life*. Cambridge: Polity.

Bhaskar, R. 1993. *Dialectic: The pulse of freedom*. London: Verso.

Black, E. 2012. *IBM and the Holocaust. The strategic alliance between Nazi Germany and America's most powerful corporation*. Washington, DC: Dialog Press.

Bourdieu, P. 1986. *Distinction: A social critique of the judgement of taste*. New York: Routledge.

Cleaver, H. 2000. *Reading capital politically*. Edinburgh: AK Press.

Ehrenberg, J. 1999. *Civil society. The critical history of an idea*. New York: New York University Press.

Foucault, M. 1980. *Power/knowledge: Selected interviews and other writings, 1972–77*. Brighton. Harvester.

Fuchs, C. 2003a. Some implications of Pierre Bourdieu's works for a theory of social self-organization. *European Journal of Social Theory*, 6(4), 387–408.

Fuchs, C. 2003b. Structuration theory and self-organization. *Systemic Practice and Action Research*, 16(4), 133–167.

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

Fuchs, C. 2010. Social software and web 2.0: Their sociological foundations and implications. In S. Murugesan (Ed.), *Handbook of research on web 2.0, 3.0, and X.0: Technologies, business, and social applications. Volume II* (pp. 764–789). Hershey, PA: IGI-Global.

Fuchs, C. 2011. How to define surveillance? *MATRIZes*, 5(1), 109–133.

Fuchs, C. 2013. Societal and ideological impacts of Deep Packet Inspection Internet surveillance. *Information, Communication & Society*, 16(8), 1328–1359.

Fuchs, C., Boersma, K., Albrechtslund, A., & Sandoval, M. (Eds.) 2012. Introduction. internet and surveillance. In C. Fuchs, K. Boersma, A. Albrechtslund & M. Sandoval (Eds.), *Internet and surveillance. The challenges of web 2.0 and social media* (pp. 1–28). New York: Routledge.

Fuchs, C., & Dyer-Witheford, N. 2013. Karl Marx @ Internet Studies. *New Media & Society*, 15(5), 782–796.

Galtung, J. 1990. Cultural violence. *Journal of Peace Research*, 27(3), 291–305.

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

Gandy, O. H. 2009. *Coming to terms with chance. Engaging rational discrimination and cumulative disadvantage*. Farnham: Ashgate.

Giddens, A. 1984. *The constitution of society. Outline of the theory of structuration*. Cambridge: Polity Press.

Giddens, A. 1985. *A contemporary critique of historical materialism. Vol. 2: The nation-state and violence*. Cambridge. Polity Press

Habermas, J. 1987. *Theory of communicative action. Vol. 2: Lifeworld and system*. Boston, MA: Beacon Press.

Habermas, J. 1989. *The structural transformation of the public sphere*. Cambridge, MA: MIT Press.

Habermas, J. 2006. Political communication in media society. *Communication Theory*, 16(4), 411–426.

Hayes, B. 2012. The surveillance-industrial complex. In K. Ball, K. D. Haggerty & D. Lyon (Eds.), *Routledge handbook of surveillance studies* (pp. 167–175). London: Routledge.

Hegel, G. W. F. 1812. *Science of logic*. London: Routledge.

Hegel, G. W. F. 1821. *Grundlinien der Philosophie des Rechts oder Naturrecht und Staatswissenschaft im Grundriss* [Bases of the philosophy of justice or: Outline of natural justice and political science]. Frankfurt/Main: Suhrkamp.

Hegel, G. W. F. 1830. *Encyclopaedia of the philosophical sciences: The logic*. Oxford: Oxford University Press.

Keane, J. 2010. Civil society. Definitions and approaches. In H. K. Anheier & S. Toepfler (Eds.), *International encyclopedia of civil society* (pp. 461–464). Heidelberg: Springer.

Kenny, M. 2007. Civil society. In M. Bevir (Ed.), *Encyclopaedia of governance* (pp. 91–95). London: Sage.

Lyon, D. 2003a. *Surveillance after September 11*. Cambridge: Polity.

Lyon, D. 2003b. Surveillance after September 11, 2011. In K. Ball & F. Webster (Eds.), *The intensification of surveillance. Crime, terrorism and warfare in the information age* (pp. 16–25). London: Pluto Press.

Lyon, D. 2007. *Surveillance studies: An overview*. Cambridge: Polity.

Marx, G. T. 1988. *Undercover. Police surveillance in America*. Berkeley, CA: University of California Press.

Murdock, G. 2011. Political economies as moral economies: Commodities, gifts, and public goods. In J. Wasko (Ed.), *The handbook of political economy of communications* (pp. 13–40). Malden, MA: Wiley-Blackwell.

Offe, C. 1985. New social movements. Challenging the boundaries of institutional politics. *Social Research*, 52(4), 817–867.

Salzman, R. 2011. Civil society. In J. T. Ishiyama & M. Breuning (Eds.), *21st century political science. A reference handbook* (pp. 193–200). London: Sage.

Sheldon, G. W. 2001. *Encyclopedia of political thought*. New York: Facts on File.

Touraine, A. 1985. An introduction to the study of social movements. *Social Research*, 52(4), 749–787.

Trottier, D. 2012. *Social media as surveillance*. Farnham: Ashgate.

Trottier, D., & Lyon, D. 2012. Key features of social media surveillance. In C. Fuchs, K. Boersma, A. Albrechtslund & M. Sandoval (Eds.), *Internet and surveillance. The challenges of web 2.0 and social media* (pp. 89–105). New York: Routledge.

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