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Surveillance, Classification, and Social Inequality in Informational Capitalism: The Relevance of Exploitation in the Context of Markets in Information

*Sebastian Sevignani**

Abstract: »Überwachung, Klassifikation und soziale Ungleichheit im informati-
onellen Kapitalismus: Die Relevanz der Ausbeutung im Kontext der Informati-
onsmärkte«. This contribution deals with classification processes as an element
of surveillance in the context of the growing relevance of (online) markets in
information and the blurring line between production and consumption in cur-
rent informational capitalist societies. Using the example of social media, I ar-
gue that classification does not only appear as feature of the demand and sup-
ply side of information markets but is also an aspect of informational
production. In doing so, the paper discusses insights from critical surveillance
and advertising studies and relates it to important strands of class theory in
order to learn about the social mechanism that establishes inequality between
Internet service owners and users. The paper argues that a (revised) notion of
exploitation and antagonistic social relations should not be omitted from theo-
rizing the information economy. Exploitation establishes an antagonism be-
tween all Internet users and the owners of the means of communication, sur-
veillance, and classification.

Keywords: Exploitation, online economy, markets in information, class, classifi-
cation, surveillance, advertising, means of communication, social inequality.

1. Introduction

In their paper “Classification situations: Life-chances in the neoliberal era”
(2017 [2013]) Marion Fourcade and Kieran Healy aim at a revision, or better,
at a further differentiation of class theory. Class situations have been conceptu-
alised, in their view, too much from the viewpoint of the sphere of production
(exploitative labour relations) and the labour market (human capital or skill,
occupation). Other markets – in the paper they are interested in the credit mar-
ket and debts – only appear in class theory in their mediating and stabilizing

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functions for social inequality that, however, is produced elsewhere outside the market. They introduce the notion of “classification situation” to make visible an additional mechanism that generates social inequality within the market. They define classification situations, as distinct from class situations, as positions in markets that are consequential for one’s life-chances and are interested in the process of “how institutions systematically sort and slop people into new types of categories (which we may call ‘market categories’) with different economic rewards and punishments attached to them” (2013, 561). Such classifications “are not merely approximations to pre-existing social groups, though of course they may overlap substantially in specific cases. Rather, they are independently, even ‘artificially’ generated classifications that can come to have distinctive and consequential class-like effects on life-chances and social identities” (2013, 560). Their starting point “is thus the operation of market institutions, not the a priori identification of fundamental social categories” (2013, 561).

This paper does not engage with Fourcade and Healy’s analysis in detail; rather I understand it as a contribution to broaden the debate about the social phenomenon of market classification that their paper has fuelled. I share with them an interest in exploring the role classification processes play in the creation and reproduction of social inequality as well as an interest in rethinking class theory “in the light of techno-social changes generated by the advent of novel market devices” (2013, 569). My approach, however, clearly differs in its attention to the concept of exploitation as the important other side of the story of social inequality and consequently focuses on the reproduction of existing classes through the implementation of classification processes instead of claiming that new classes are created by these processes in the market.

To finally arrive at this point, I combine a series of distinct debates and theory strands, such as classification theory, surveillance studies, advertising studies, the sociology of inequality, and integrate them in a Marxist theory framework of commodification, labour, exploitation, and class: I refer to the debate of the blurring line between consumption and production and the rise of prosumers as a starting point to introduce a broad concept of labour that includes the activity of Internet users. Social classification processes are introduced as a tool to establish an unequal relation of surveillance between Internet users and the owners of the means of online communication, such as server farms, software, and platforms. Surveillance as a precondition of targeted advertising is crucial to commercialise the activity of Internet users and this opportunity to make money from users’ online activity is then situated within different approaches to class theory.

The paper takes the following course: First, I introduce the growing relevance of surveillance in the online economy. Second, classification is situated as an element of surveillance and linked to commodification processes. Third, social inequality creating mechanisms – individual attributes, opportunity hoarding, and exploitation – are discussed in relation to surveillance, classifica-

tion and markets in information. Fourth, a revised notion of exploitation 2.0 is presented. I conclude that the Marxian strand, as the important other side of the story of social inequality, should not be omitted. Throughout the paper, I use (commercial) social media as a paradigmatic case where the described tendencies in informational capitalism culminate.

2. The Rise of Surveillance Driven Culture Production in Informational Capitalism

Two analytically distinct phenomena typically appear in the discourse about informational capitalism. Firstly, information, knowledge, and in a broader sense culture are produced as commodities. Adorno and Horkheimer were among the first to have analysed the commodification of culture within an emerging Fordist stage of capitalist development and have coined the term “culture industry” (Horkheimer and Adorno 2002; Steinert 2003) to express that culture became a mass commodity that is produced for profit purposes. Two main socio-economic conditions that fostered the commodification of culture can be named. On the one hand, a significant number of the population could afford to buy cultural goods. On the other hand, the working day was limited to the extent that a significant number of the population has free time for cultural activities. Capital massively expanded into the cultural sphere and cultural content, cultural audiences, and cultural work were captured by commodification processes (Mosco 2009, 11-4). This trend continues and can be exemplarily understood by having a look at the World Economic Forum’s proposal to treat information as a capital asset and its reminder from economic elites to political decision-makers to find a right balance between individual privacy protection and economic innovation and growth (World Economic Forum 2011, 7). And secondly, speaking about informational capitalism can mean that informatisation is a quality of the way all kinds of goods and services are produced in a society, which is one of the core themes within labour, industrial, and economic sociology. This paper engages with the first aspect – the new relevance of markets in information – but draws also on the second aspect as informatisation not only allows the effective linking and modelling of all steps necessary to produce any good, it also allows one to effectively link all stages of the economic process. For instance, information about potential and previous buyers influences how a commodity is produced or distributed.

A key quality of capitalist market societies, according to Marx (Marx 1867/1976, 129-37, 166-7), is that no a priori coordination between societal supply and demand exists. The actual buying process, thus the realisation of profits, is basically uncertain from the standpoint of the single producer but also from the standpoint of the consumer (Haug 1986). The market is the social site where it is decided whether a certain production was useful or not. It is

therefore understandable that the individual capital, in competition with other capital that does not exclude strategic cooperation among them, seeks to minimise this structural uncertainty. Marketing and, as an important subdivision, advertising are important strategies to deal with this structural capitalist uncertainty in particular under conditions of pending accumulation crisis and monopolized market structures (e.g. Baran and Sweezy 1966, 128). Data-driven marketing is a general feature of informational capitalism. Marketing activities become integral to all spheres a commodity passes through, from provision to transition to the consumer. Detlev Zwick and Janice Denegri Knott argue that “at the beginning of the 21st century, data-driven marketing is ubiquitous and is shaping business practice in a growing number of industrial and consumer markets” (Zwick and Knott 2009, 222). Consumer surveillance is a crucial element in this process. Maurizio Lazzarato argues that “rather than ensuring (as nineteenth-century enterprises did) the surveillance of the inner workings of the production process and the supervision of the markets of raw materials (labour included), business is focused on the terrain outside of the production process: sales and the relationship with the consumer” (Lazzarato 1996, 140).

Whereas traditional forms of advertising are directed at broad groups of potential buyers, targeted advertising is tailored to precisely defined and differentiated groups, or even individual consumers. This demands more detailed, exact, and differentiated knowledge of the users’ wants and (buying) behaviour. Online corporations are able to provide such data and consequently surveillance based business models that offer commodities produced from data and information about Internet users gained enormous relevance in the online economy.¹

Joseph Turow (2011) provides a useful narrative of the development of online surveillance-based business models, focusing on the interplay between media corporations’ and advertisers’ (advertising agencies and their clients) business relations: “Advertisers and their media agencies reward publishers who help them pursue and expand the logic of individual tracking, targeting, and tailoring” (Turow 2011, 140). It started with the “click” and the responding “banner” advertising. The click was, however, deficient in the view of the advertising industry since it did not allow an inference to be made whether a new visitor to the web site or a visitor who has already clicked on a banner has given attention to the advertisement. The “cookie” is the technological response to this situation. The cookie made identification and user tracking across different websites possible. The utilisation of web searches for marketing and advertising purposes is a next step in the development of user surveillance. Mobile usage of media finally connects information about potential buying behaviour with concrete offline contexts of supply.

¹ For a nuanced view that stresses a gulf between the discourse about the potentials of social media marketing and its limited use by practitioners, see Pridmore and Hämäläinen this issue.

The commercial media's and advertisers' response strategy to potential consumer and user anxieties about, for instance, a loss of privacy (Sevignani 2016), is to deny a general logic behind their surveillance and discriminatory activities and instead to frame these issues in individual terms. They have "learned that the key to managing such anger is to make the customer see tension-inducing rules as almost an interpersonal issue between company and customer. 'Failure' to get benefits or offers within the scheme would then be a private issue resulting from the rules of collaboration rather than one needing public remedy" (Turow 2006, 303).

In the present situation, most Internet services are profit-oriented and allow advertising on the sites. Wikipedia is the notable and interesting exception among the most frequented Internet sites worldwide because it is not commercially run and has no advertising. To the extent that media and cultural content is nowadays widely distributed online, it is reasonable not only to stress the relevance of economic surveillance in informational capitalism, but also to speak of a general "rise of surveillance-driven culture production" (Turow 2005, 113) and to maintain that "by capturing consumer activities ubiquitously and in minute detail, databases become repositories of complex consumer lives by turning behavior into abstract aggregates of individualized and individualizing data points" (Zwick and Knott 2009, 222).

Here is now the point where the example of social media comes in. I consider social media as a paradigmatic case where the described tendencies in informational capitalism culminate and the remainder of this paper develops its arguments along the discussion of this subject. While people use social media for different reasons, such as getting news, providing information, staying in touch with friends, making new acquaintances, or organising events, they produce a wide range of data. All their online activity leaves valuable 'data fingerprints.'

3. User Surveillance, Classification, and the Commodification of Information

Bowker and Star define classifications as "spatiotemporal segmentation of the world" (2000, 149). If classifications are ordered, a classification system originates that is "a set of boxes, metaphorical or not, into which things can be put in order to then do some kind of work" (ibid.). However, classification is itself a form of work, namely of attaching things to categories and to build systems from these categories (ibid.). Like work, classifications "are both conceptual (in the sense of persistent patterns of change and action, resources for organizing abstractions) and material (in the sense of being inscribed, transported, and affixed to stuff)" (ibid., 152).

I propose to consider classification as an aspect of (consumer) surveillance. Surveillance, however, goes beyond and directs classification by introducing an

important social distinction between watchers and watched. For Oscar Gandy, surveillance includes three processes (Gandy 1993; 2012): First, instrumental identification, which implies that an individual or a group is identified by an institutional other, following any means-to-ends consideration. The second process of surveillance is classification, which is the “assignment of individuals to conceptual groups on the basis of identifying information” (Gandy 1993, 16) for the purpose of a “maximization of similarities and differences within and between analytically defined groups” (Gandy 2012, 126). Third, there is assessment, which is comparing conceptual groups with other conceptual groups and the examination of probabilities, for instance, of a buying act. Assessment itself includes the sub-process of evaluation and discrimination. Evaluative assessment aims at calculating whether a particular loss or benefit will occur in the future. Distinctive evaluation is based on previous evaluation and involves a choice to treat differently evaluated individuals or groups in different ways.

In the literature, some authors see surveillance as a critical concept that denotes a negative condition that should be overcome (Gandy 1993; Allmer 2012); others argue that there are also positive qualities of surveillance (Haggerty 2006; Giddens 1981, 169). All approaches have in common that they describe surveillance connected to the systematic collection, storage, diffusion, processing, and use of personal data. My approach is to situate it in the context of the commodification of information, which is first a descriptive concept. The following sections, however, link commodification to the problem of unequally distributed life-chances among people and to the capitalist logic of accumulation that reproduces and amplifies social inequality. This refers back to my assumption that surveillance is based on an unequal relation because at the heart of this logic is the mechanism of exploitation. Although accumulation and exploitation are descriptive terms too, at least exploitation has also normative connotations that finally call for its abolition.

Why is surveillance a means to commodification? In my view, surveillance helps to make user interactions and social relations manageable for economic interests by formalizing them (Schmiede 1996; May 1998, 252; Jessop 2007, 120; Gorz 2010, 44; Rullani 2011, 375-6). To explain this, it is useful to introduce a tripartite model of information that is popular in informatics (Fuchs-Kittowski 2004). Within this framework, data, information, and knowledge, which are usually subsumed under the umbrella term of information, can be distinguished according to the common linguistic model of syntactics, semantics, and pragmatics. Data are the syntactic expression of information. Information is data that make a certain sense and knowledge is a relational system of information that is interpreted in a broader context. Social media are spaces of knowledges where users from different backgrounds of experiences interact. By sharing meanings and in order to communicate, users must reduce the plenty of their knowledge to specific information. “Information always includes only designed and formalized excerpts of reality, i.e. those cleared of disturbing

conditions and complexities” (Schmiede 2006, 343). Information is, as abstract and formalised content, also the resource of knowledge. For example “a newspaper report may be completely understandable concerning its words and their meaning for me as a reader, but due to lacking context its meaning may be completely incomprehensible at the same time” (ibid.). When we speak of digital communication and surveillance, human-computer interactions are involved and a further formalisation comes in: Human-computer interactions couple semantic and syntactic processes, they generate data from information, and information from data. While data is most formalised, knowledge is the less formalised expression of information. Commodification of social relations, sharing, and knowledge demands formalisation in order to separate valuable aspects from their social place of origin. The crucial step towards commodification of user generated information takes place when the dialectical process of knowledge, information, and data production is not inhibited but appropriated by economic interests that aim to transfer gained information to other contexts than the communication process between users. Appropriation and transfer to the advertising market becomes possible because of the described processes of formalisation.

The rise of the surveillance driven culture production depends on the existence of markets in information where Internet corporations can exchange information with an interested advertising industry. User surveillance and thus classification is the mode through which online activities are transformed into commodities. Thereby it is important to understand that information gained in the surveillance process is used in a twofold way by commercial Internet services (Cohen 2008). Online corporations, such as those that operate social media, make a first use of these data by monitoring and using them to enhance the service and trigger more user interactions under their surveillance. For instance, while using social media, a friend of mine posts a caricature on his wall page and I am informed about this activity. Following this, I comment on the caricature and cite an online newspaper article that gives background information on the political event the caricature is about. Assuming the background information and the caricature are controversial, a lively debate with several users starts. The online service has successfully triggered more user interactions on its platform.

Data, however, are used in a second way and this is the decisive one because it involves surveillance in its proposed critical meaning. The difference now is that the watched must not become the watchers and the secondary use it not necessary for the service to perform its primary social functions. Information about users could, in principle, be used solely for network and interaction enhancing means as it would be the case for alternative, non-commercial Internet services but this would allow, in principle, that the users can become the watchers. Social media corporations monitor, collect, and store as much and even more user data themselves. Or they allow other corporations to do so on

the platform. The aim is to sort “individuals on the basis of their estimated value or worth” (Gandy 1993, 1) or to generate consumer reputation profiles about the users (Turow 2006). The online surveillance process includes the transformation of user information into formalised data and vice versa the transformation from formalised data into advertising relevant information about the user, such as socio-demographic information and consumer preferences. Social media corporations’ secondary use of information involves making information generated from user data accessible to advertisers in exchange for money. Information, including privacy relevant information, is commodified in this process. Commodification always involves three qualities (Williams 2002): a) goods and services are produced for exchange; b) the exchange of these goods and services is monetised; and c) the production for exchange is motivated by the profit principle. Commercial social media, as a rule, do not share the gained data about users with the users. In order to exchange data in markets they must exclude this option and they must have a property right in data to do so (Sevignani 2016).

Through surveillance, users are made quantitatively comparable in order to be tagged with a price in the process of commodification (Symthe 2006; Meehan 1993; Bolin 2009; Caraway 2011). Users as consumers “are compiled in a marketplace that is technologically equipped to capture transaction records in digital formats. This information about consumption-related behaviors can be stored, collated, and circulated almost instantly with few spatial constraints. This digitized marketplace is structured to produce ‘consumers’ as commodities. By contrast, consumers are real people in a marketplace, breathing life into the institutions and habits of consumership. ‘Consumers’ are rationalized representations of these actual consumers” (McGuigan 2012, 299).

For Internet corporations applying the surveillance driven business model, the first use of information on user interaction is only a means to the secondary use of information for advertising. Only through the latter, the corporation is able to gain profit. This is only possible by enabling the former. The more users participate in social media, the more they interact on them, the more attractive the service becomes for new users, and the more interactions are triggered subsequently. Commercial services try to optimise user participation and social network building with regard to the users’ contribution to the secondary use of information for profit purposes but users do not intentionally produce information for sale when they communicate or collaborate on social media.

4. Inequality Producing Social Mechanisms and Markets in Information

In order to understand different social inequality creating mechanisms, we must carefully define the groups that are involved in an unequal relationship. As the

information markets that are attached to social media involve users, providers, and the advertising industry, inequality is imaginable in the following relations: between users, between social media service providers, between advertising networks or agencies, between users and social media service providers, between social media providers and advertising networks or agencies, between users and advertising networks or agencies. Surveillance and classification processes are most commonly problematised because they enable social sorting (Lyon 2003; Ball, Haggerty, and Lyon 2012, 119-21). For instance on social media, surveillance and classification sorts individuals into boxes that determine what information they will get displayed (Pariser 2011) or which kind of advertising offers they will receive. However, what I am primarily interested in here is the inequality between users and (the owners of) social media service providers, which, as I will demonstrate, also involves some other unequal relations.

There is relatively little literature that systematically discusses distinct inequality producing social mechanisms (Tilly 1998; Therborn 2006; Diewald and Faist 2011). Traditionally, class theory is the place where the most relevant of such mechanisms have been identified with a focus on the economy. In a recent systematization Wright (2015) provides useful criteria to distinguish theories of class, first, based on their focus on the economic process (production, market/circulation, and consumption), second, based on the relationality of the mechanism they suppose (none, external, and internal relation) and, third, based on the observational (micro, meso, macro) and political (small improvement, institutional improvements, systemic improvements) range. Wright (2015, 4) identifies the following main mechanisms that create bigger social classes and that underlie the main approaches to class theory: the effects of individual attributes, opportunity hoarding and social closure, and domination and exploitation.

The first inequality creating mechanism focuses on individual attributes. Inequality is explained by the differing social background conditions in an individual's life that provides the individual with different class-relevant attributes. These attributes then translate in different class positions in the occupational structure. In this case, the rich are rich because they have favourable attributes and the poor are lacking them. In the case of markets in information and the example of social media, this could mean that entrepreneurs, such as Facebook's Mark Zuckerberg, Google's Sergey Brin and Larry Page, and others, are now rich because they have had the right resources, such as breaking business ideas, talents, a good training e.g. by elite colleges and universities, and accumulated social capital in order to achieve a CEO or a leading shareholder position. All those resources enabled them to found, develop, and sustain the Internet services that they now own to large extents. This approach is in principle a non-relational one because it sees no connection between the poor and the rich and reduces social inequality to individual differences because resources appear as an individual's attributes.

However, individual attributes are also the effect of social attribution processes and in this sense social relations are involved. For instance, breaking business ideas must be recognized and financed and good training is usually credentialed. Bourdieu (1986) develops his class theory as a relational one. His different forms of capital (economic, social, and cultural) are resources only in comparison to other positions in the social space and only insofar as they are recognized on a symbolic level (symbolic capital). Classification is a socio-cognitive practice of applying and thereby accepting constructed categories in everyday life. Actors evaluate cultural objects and practices in order to classify themselves and demonstrate where they stand in relation to others in the hierarchy of the social space. To establish certain systems of classification does not only mean to situate oneself in the social space but also to permeate a certain image of the legitimate social order successfully. This theory links classification to social structure (class in itself and class for itself) but sees a relational independence of classification from class by pointing to the rigidity of successfully established classification systems. The notion of classification situations (Fourcade and Healy 2017 [2013]) also assumes that individual attributes are not simply given and marketers bring them to the market; rather the attributes are socially – that is in relation to others – constructed and created in markets.

Attributes are frequently derived relationally (attribution), they are then affixed to individuals. Social attribution or the perception of heterogeneities is relevant for inequality because it forms the starting point for any other inequality creating mechanism (Diewald and Faist 2011, 105). Without the creation and perception of differences among people (and the identification of different participants in the information markets already assumed such differences), none of the following relational inequality creating social mechanism could be effective.

The second approach is opportunity hoarding and, in contrast to the first mechanism, which focuses on individual attributes, it claims a relation between the classes; here the rich are rich because the poor are poor. Opportunity hoarding presupposes an exclusionary relation enforced by a form of power among individuals concerning different internalised and external resources. Tilly (1998, 35) names the following value-producing resources that are relevant for producing durable social inequality: Coercive means (e.g. weapons), labour (in particular skilled labour), animals, commitment-maintaining institutions (e.g. religion), machines, financial capital (for acquiring property rights), information, media, and scientific-technical knowledge.

Private property is the most crucial means to enable a relation of exclusion for opportunity hoarding. Private property rights are commonly associated with four aspects: the right to use, to abuse, to alienate or exchange something, as well as the right to receive the benefits that the usage of something generates (*usus fructus*) (Munzer 2005, 858). Crawford B. Macpherson (1978, 9-10) traces the historical development of property rights and identifies important shifts in this development. Private property that is based on a relation of exclu-

sion is first taken for property as such thereby neglecting communal forms. Then private property in the consumable means of life is identified with private property in producing these means of life. Private property can be or probably has always been constrained by the state or society (Christman 1994). However, “it may be called an absolute right in two senses: it is a right to dispose of, or alienate, as well as to use; and it is a right which is not conditional on the owner’s performance of any social function” (Macpherson 1978, 10; see also Munzer 2005, 858).

Private property is an exclusionary relation among people in regard to (intangible or tangible) things. Marx described the historical process to establish such relations among peoples in the context of the rise of capitalism as primitive accumulation and he makes the point that the birth of capitalism was a violent one (Marx 1867/1976, part eight). More recently, it was argued that this process is ongoing and an integral element of capitalist societies (De Angelis 2007; Dörre 2015). Since the 1990s the Internet became a new space for capital accumulation and we could observe enclosure processes in this realm (Perelman 2000; Boes et al. 2015). Beside influencing the political process, creating and enforcing new intellectual property rights (Boyle 2002), there are also strategies of opportunity hoarding that make use of non-legal or quasi-legal processes (Harvey 2014, 133). Whereas the focus on private property sheds light on the (interplay of) political and economic processes, it usually does not grasp cultural aspects of the primitive accumulation or the raise of capitalism very well. Weber’s ideas of the Protestant ethic as an important aspect of the genesis of capitalist social relations can be seen as complementing Marx’s analysis of primitive accumulation (Weber 2012). It is crucial not to neglect that the ongoing enclosures or primitive accumulations demand, beside political force and economic power, also a cultural legitimation. What do the economic, political, and cultural aspects of opportunity hoarding mean for markets in information and the example of social media?

In the case of markets in information and the example of social media, there is an exclusion of users from several mechanical, informational, knowledge, and media resources that providers control. For instance, users are excluded from the control and use of the huge and extremely energy consuming server parks that are needed to operate the services. They do not control the development of the software that commercial social media use to provide their services, and users are excluded from the knowledge of how exactly algorithms are programmed that establish the link between the two uses of data and enable commercial social media to connect to advertising networks. The control over these resources gives social media providers the opportunity to valorise user data by selling it to the advertising industry, users are excluded from this opportunity.

The concept of intellectual property and therefore private property in information consists of the “idea that an idea can be owned” (Hesse 2002, 25) which first has to be enforced against the assumption that that “ideas are intrinsically

social: they are not produced by individuals alone; they are the fruit of a collective process of experience” (Hesse 2002, 36). This political struggle is ongoing (Benkler 2006; Boyle 2002), however, in practice, there are markets in information and online advertising networks that are able to attract significant portions of the global advertising fund and this becomes possible because user information is privatised. Commercial social media’s terms of use are binding contracts and provide the legal base to utilise users’ data for profit purposes.

However, the opportunity to valorise user data involves some other economic inequalities between social media service providers themselves and between them and the advertising industry. Private property rights in information and the opportunity to exclude others from the aggregated information give rise to competition between marketers. In capitalism, there is a dialectic of competition and concentration, which finds its expression in the contradictory discourse about monopolistic competition (Harvey 2014, 137). Media concentration is thus not an exception from the rule but a regular and state aided process in commercial media systems (Knoche 2013). Empirically, we find a steady process of political deregulation or privatisation, which leads to more concentrated media markets, and subsequent re-regulation, which legitimates the concentrated status quo in respect to competition on an ever-increasing scale (local, national, transnational, global). Today, the Internet in general and online markets in information in particular are highly monopolised spheres and probably must be because otherwise these markets cannot be profitable at all due the specific qualities of information e.g. as a non-rival good (Benkler 2006; Rullani 2011, 340-6). For instance, the global top fifteen websites reach a significant share of the global Internet population and most of them are based on the described surveillance based business model. The advertising industry, in turn, consists of a few powerful provider of advertising relevant information, such as Facebook’s Ad Network and Google’s AdSense or AdWords (McChesney 2013, 130-58; Dolata 2015).

Concerning unequally distributed financial resources, the mechanism of opportunity hoarding results in strategies to realise monopoly rents. Critical political economy’s concept of rent has raised a renewed interest in the digital age (Pasquinelli 2009; Caraway 2011; Arvidsson and Colleoni 2012; Huws 2014; Ouellet 2015). Rent is a key mechanism to make profits for Internet corporations. It is an opportunity to extract surplus value that is produced elsewhere, including, for instance, offline production sites and from corporations that advertise their products. More recently, rent was related to culturally produced sites (Harvey 2001) and Internet business models (Foley 2013). This reconceptualization enables us to think that human activity is involved in establishing the preconditions of rent seeking. A monopoly, for instance, in access to a wide user base, is exchanged for money with somebody who thinks that her or his own business can be enhanced through it (by reducing the costs of the structural uncertainty to realize the invested value on the market). The costs for access

(rent) are a reduction from profits, but an economically rational one since it allows a realization of higher profits than competitors can do without it. Having access to social media's user base may – from an economic perspective – be more sensible than to advertise a commodity on a site with much less users or in a newspaper.

Rent seeking strategies can follow conventional economic paths by aiming at establishing new intellectual property rights, realising monopoly prices through product innovation, making use of the economies of scale and scope, and network effects. However, there are also pseudo or non-legal strategies of opportunity hoarding in information markets. One can think of intentionally created opacity or making use of legal loopholes. Internet corporations actually apply both strategies to realise monopoly rents. For instance, insights into the use of personal information through social media providers are obfuscated through complicated terms of use and privacy statements. Using social media is thus largely based on an “uninformed consent” (Campbell and Carlson 2002, 593; Fernback and Papacharissi 2007; Sandoval 2011). What is more, commercial social media actively make use of different privacy (and tax) laws and states let them do so. For instance, Facebook chose to place its European headquarters in Ireland, a land known for its lower privacy law standards and corporation friendly tax policy.

On the cultural side, there is the reproduction of what I call a privacy ideology (Sevignani 2016) that consists of a notion of privacy that is strongly entangled with the notion of property and self-possession. This ideology enables us to trade personal information, for instance, through our agreement to social media terms of use. At the same time, we find an ideology of sharing that consists in a positive framing of sharing information with others and thereby neglecting that this sharing also fuels private interests. The sharing ideology is supported by the powerful self-presentation of the online economy (sometimes in clear distinction from the ‘old’ economy) as serving social purposes and being the opposite of evil (Fuchs and Sevignani 2013, 261).

Opportunity hoarding and the third mechanism, exploitation, both involve the exercise of power either in order to enforce exclusion or to control labour (Wright 2015, 11). Manuel Castells (2011) explores the forms that power takes in informational capitalism and distinguishes between four forms: First, ‘networking’ power is the power of those who have access to global networks over those who do not have access to them. Second, ‘network power’ is the power that results from the standards of the networks or the rules of inclusion in the network. Third, ‘networked power’ is the power of social actors over other social actors within a certain network. Fourth, the most crucial form of power is network making power (*ibid.*, 776). It is “the power to program specific networks according to the interests and values of the programmers, and the power to switch different networks following the strategic alliances between the dominant actors of various networks” (*ibid.*, 773). Network-making power

consists of two operations: programming and switching. Programming power is “the ability to constitute network(s) and to program/reprogram the network(s) in terms of the goals assigned to the Network” (ibid., 776); switching power is “the ability to connect and ensure the cooperation of different networks by sharing common goals and combining resources while fending off competition from other networks by setting up strategic cooperation” (ibid.). Network-making power flows easily into network power: “Network power is the power of the standards of the network over its components, although this network power ultimately favors the interests of both a specific set of social actors at the source of network formation and also of the establishment of the standards (protocols of communication)” (ibid., 775). The first two forms of communication power refer to the opportunity hoarding mechanism because they help to establish an exclusionary relation. The third form refers to exploitation because power is used to control the activities in the network.

Beside their genuine social and relational nature and the involvement of power to establish and reproduce a relation of inequality, there is a systemic interconnection between the opportunity hoarding approach and the third inequality creating social mechanism that shows that these different approaches should not be seen as contradictory but as complementary on different levels of observation and problematisation: “Perhaps the most important exclusionary mechanism that protects the privileges and advantages of people in certain jobs in a capitalist society is private property rights in the means of production” (Wright 2015, 7). The exclusion of some groups from the means of production historically leads to a form of exploitative domination. “‘Domination’ refers to the ability to control the *activities* of others. ‘Exploitation’ refers to the acquisition of economic benefits from the laboring activity of those who are dominated. All exploitation, therefore, implies some kind of domination, but not all domination involves exploitation” (Wright 2015, 9). Private property in the means of production enables owners to exercise control over labour. In the process of primitive accumulation a ‘fictitious’ commodity (Polanyi 2001, 76; Jessop 2007) is created. Human labour force must be offered and can be sold on labour markets but is not produced for sale. Labourers, deprived from the means of production, cannot make their ends meet without exchanging their productive capacities on markets.

With exploitation, we see however a different form of relation between the unequal. The relation is not external to the involved individuals mediated by the unequally distributed control over resources but internal. The rich are rich because the poor make them rich and reproduce the unequal situation simultaneously; there is an asymmetric interdependency. Consequently, we can speak of exploitation if three criteria are met (Wright 1997, 9-17): First, inverse interdependent welfare means that the wealth of some social groups is dependent on other social groups that profit less. Second, exclusion means that some social groups ensure that other social groups are excluded from the profit-generating

conditions and the profit itself (through private property rights). Third, some social groups are able to appropriate the wealth created by other social groups. Exploitation refers to the final shift that property went through towards reaching its capitalist form: private property in producing the means of life is identified with a specific property in producing the means of life, namely private property in the labour force (Macpherson 1978, 10; Pateman and Mills 2007, 17-8; Polanyi 2001, 76).

Applied to markets in information and social media, classical exploitation occurs because the social media owner buys technical infrastructure, such as server parks and software components, as well as labour force, such as accountants, software developer, advertising specialists, etc., and organises the production of social media through which users can interact. Bolin (2009), for instance, argues that commercial social media's employees, who operate the software and pack user data into commodities, are an exploited class. Thus there is, of course, a social relation of inequality within social media service providers.

5. Exploitation 2.0

The business model that is of interest here, however, is not (primarily) based on selling users the access to the medium but is based on the secondary use of user interactions for profit purposes. Is there a similar mechanism specific to the described surveillance and classification based business models? Can a notion of exploitation 2.0 be justified? In my opinion, we need a three-step argument to answer this question positively. This includes, first and most crucially, a broadening of the notion of labour; second, to make a broad concept of the means of production as the decisive value-producing resource in capitalism plausible; and third, the identification of an equivalent to the exploitable fictitious commodity of labour power.

First, a broad understanding of labour is not restricted to a productivist and wage-labour centred view (Fuchs and Seignani 2013; Fuchs and Sandoval 2014). Dallas Smythe (2006) in the 1970s first speaks of the commodification of audiences through the corporate media: Just like labour power was commodified and became exchangeable on markets with the rise of capitalism, audience power is now traded in the media industry. With the rise of a "surveillance-driven culture production" (Turow 2005, 113) and most Internet services relying on advertising as their business model, Smythe's notion of audience power was rethought. Fuchs argues that "advertisers are not only interested in the time that users spend online, but also in the products that are created during this time – user generated digital content and online behaviour" (2012, 704). The "work of being watched" (Andrejevic 2002) is now a key quality of using the Internet and the users participate in the production of the services. We see a strong

correlation between a commercial service's user base and its revenues (Andrejevic 2015, 7) in terms of extensity and intensity of time spent online.

Alvin Toffler has introduced the term "prosumer" to express that there is a "progressive blurring of the line that separates the producer from the consumer" (1980, 267). Applied to the Internet, one can then speak of "produsage" (Bruns 2008) or the "produser" (Fuchs 2010). There is a long existing trend that consumers are put to work since it is a potential profit maximising strategy (Ritzer and Jurgenson 2010). For instance, fast food restaurants encourage their customers to dispose of their food wrappers by themselves. Some furniture shops let their customers assemble their purchases by themselves. Work that is traditionally performed by employed and paid workers appears now as unpaid consumption work. Ritzer and Jurgenson argue that although prosumption has always been a trait of capitalist societies, it gains particular relevance in the context of the Internet and web 2.0 which is "the most prevalent location of prosumption and its most important facilitator as a 'means of prosumption'" (2010, 20). Producing and consuming takes place simultaneously in the context of web 2.0 services, such as social networking sites. According to Beer and Burrows "perhaps the key defining feature of Web 2.0 is that users are involved in processes of production and consumption as they generate and browse online content, as they tag and blog, post and share" (2007, 8). Users are therefore 'prosumers' or 'produsers'. Linked to the previous discussion about surveillance, Christian Fuchs argues that "the combination of surveillance and prosumption is at the heart of capital accumulation on web 2.0" (2011, 296). On social media, users consume the web service and simultaneously produce advertising relevant information.

The notion of online prosuming disentangles our understanding of work from the classical sphere of production and reveals that production also takes place in the sphere of consumption. It, however, rejects a productivist notion of work in a second sense: contrary to authors who make a sharp distinction between purposive and instrumental activities (in order to handle scarcity for instance) and an activity that aims at cooperation and communication, Fuchs and Seignani (2013) assume the unity of these aspects within the work process. This point is also made by Sean Sayers (2007), who argues that authors, such as Arendt (1958), Habermas (1984; 1987), as well as Hardt and Negri (2000, 404-5) use insufficient accounts of Marx's theory of work and all hold that Marx is a productivist and a theorist solely of the industrial age. On the contrary, Marx has seen manifold forms of work that he conceptualises as formative activities. Sayers argues that 'immaterial' work "operates, as does all labor, by intentionally forming material and altering the material environment in some way, including through speech and other forms of communicative action, in order to create use values" (Sayers 2007, 447; see also Fine, Jeon and Gimm 2010).

Such a broad concept of labour (see Fuchs 2016) can theoretically be built on Herbert Marcuse (1965, 22; 1967), Cultural Marxism (Williams 1981; 2005),

Critical Psychology (Vygotsky 1978; Hund 1976), Critical Linguistic and Semiotics (Vološinov 1986; Rossi-Landi 1983); and the Post-Workerist tradition (Hardt and Negri 2004, 108; Terranova 2000; Boutang 2012). Raymond Williams, argues that “a major part of the whole modern labour process must be defined in terms which are not easily theoretically separable from the traditional ‘cultural’ activities. [...] [S]o many more workers are involved in the direct operations and activations of these systems that there are quite new social and social-class complexities” (Williams 1981, 232). In this context, it is important to distinguish between communication at work and the work of communication (Fuchs 2016). Communication and information generation are, firstly, aspects of coordination of the work process that phylogenetically rose with tool-using and tool-making cooperative work process (Holzkamp 2013); but communication and information generation is, secondly, also itself a form of work. Although informational labour, such as online prosuming, is increasingly detached from nature, it never loses its material base. Information work is ultimately based on the activity of the human brain, which is a material system. It also objectifies itself in matter such as a notebook or it creates electronic impulses in a computer system. Although some work has no tangible outcomes, it is nevertheless material insofar as it produces and reproduces social relations. All work – as Marx understands it – creates or alters subjectivity; all work is therefore ‘immaterial’ or ‘biopolitical’ work (Sayers 2007, 448). Work is a broad category constitutive of the human that includes different types of work, such as agricultural work, craftwork, industrial work, and informational work that can be seen as evermore-mediated forms between humans and ‘nature’. Labour includes cognitive, communicative, and cooperative aspects. When using the Internet, we combine – in relation to others – our experiences and online information as objects of labour, with our brains, hands, ears, eyes, speech and the Internet or specific platforms as instruments of labour, and produce a new use value – the so called produser product.

Social media users do not receive a monetary wage in exchange for their online activity, although there are (problematic) ideas that point in this direction (Sevignani 2016, 84)². Feminist thinkers have stressed that there is exploitation beyond the wage and they have politicized thereby the private realm of reproductive work. For labour power to be sold on markets it must be (re-)produced first, which is traditionally made possible by female work performed in families. Non-wage labour “ensures the reproduction of labour power and living conditions” (Mies, Bennholdt-Thomsen and Werlhof 1988, 18). It is labour performed “in the production of life, or subsistence production” (ibid., 70). By highlighting the necessity of unpaid labour for the economy these Feminist

² <<http://wagesforfacebook.com/>> (Accessed February 14, 2017).

thinkers broke with a wage-centrist notion of labour and thereby provided an important broadening of the notion of labour.

The second and consequent step of the argument leads us to revise the means that are necessary to realise informational work. Undoubtedly, Internet users are free to exchange in markets. They are legally independent actors that consent to Internet services' terms of use and no authority forces them to use a particular service. I would however argue that they are also free from the means of communication, surveillance, and classification. Although users can make use of communication technology and they might be involved in lateral or bottom-up forms of watching, it is, in my view, important to recognise that the means of communication and surveillance do not consist in the access to a single technological device but in access to a concentration of these devices. Server parks are a good example because it requires immense resources to operate them. Fourcade and Healey argue that classificatory systems, as means of communication and surveillance, "are by nature private, even to the point of being trade secrets. They are oriented toward the extraction of profit and often manufactured and managed in a quasi-monopolistic manner" (2013, 561). Internet users are free from the means of communication and surveillance and this situation forces them to use at least one of the available commercial services in a highly concentrated Internet in order to be able to benefit from the Internet's various functions and to socialise and live a good thus connected life under our given circumstances. In the current form of society, users are forced to put their privacy under contract. I would speak in this context, in analogy to Marx's notion of the doubly free labourer, of the doubly free Internet user. In this respect, ideas to decentralize the Internet and social media are an interesting way to erode the exclusion from the means of communication and surveillance (Sevignani 2015).

A monopoly of the means of communication enables social media owners to subsume user's online activities under their profit interests. Commercial social media are able to set the terms of online communication by determining information flows and clicking behaviour according to their business interests. They structure attention by highlighting sponsored messages and interrupt user communication by advertising. This is, in my view, a form of real subsumption of work under capital and stands in contrast to the frequently observed new relevance of formal subsumption of labour under capital (Vercellone 2007) and the rise of neo-feudal social conditions. In my view, privacy outcries exemplify the continuing and not merely indirectly exercised control power of capital that conflicts with control by users (Sevignani 2016).

As it should become clear from the previous discussions, I see an analogy between the fictitious commodification of labour and information. This analogy is grounded in the broad notion of work that includes informational and communicative aspects. User-generated information is not produced genuinely for sale. Even if information production is subsumed to capital, this production

demands in significant measure conditions that are not under the control of commercial social media, such as experience, knowledge gained outside social media and the Internet (Jessop 2007).

Third, based on the general contractual freedoms in bourgeois capitalist societies there must be a correspondence to the wage contract. And I think we can find it in the terms of use and privacy policy of commercial Internet services that grant them extensive property rights in user-generated content (Sevignani 2016). In the corporate Internet, users have a double freedom because they are usually free from ownership of the Internet services but they are simultaneously free to exchange their personal data or their 'producer' product with commercial providers because they hold a property right in it. For instance, the user must contractually accept commercial social media's data use policies and thereby grants extensive permissions that his or her data is used for advertising purposes.

Exploitation 2.0 contributes to Internet corporations' profits. Economic and monetary power reproduces the power that exploitation needs to perform. Money power or the power to hold private property in the means of communicative production is transformed into network-making power that is in turn transformed into network power. Castell argues: "The *metaprogrammers* empowered with network-making capacity are themselves corporate networks. They are networks creating networks and programming them to fulfil the goals that these originating networks embody: maximizing profits in the global financial market; increasing political power for government owned corporations; and attracting, creating, and maintaining an audience as the means to accumulate financial capital and cultural capital" (2011, 782). The owners of social media hold network-making power. They set the terms of use and design and program the service according to their profit goals (programming power). And they are able to connect the social network to the advertising networks and financial networks. Commercial social media control the access to potential consumers and are therefore able to connect or disconnect to advertising corporations' marketing data and networks. They also hold the power to connect users' social cooperation to financial networks, such as stock markets, for the purpose of gaining profits. Commercial social media have the power to link two modes of production together, namely social cooperation or the common production of social networks and commodity production.

5. Conclusion

I started by pointing out that capitalist market societies, due to their lack of plan, urge market players to bridge economic uncertainty by the means of advertising (amongst others). Advertising in the informational age can be more targeted and at least promises to be a powerful tool for commodity producers to deal with the structural capitalist uncertainty to realise invested value. These

conditions gave rise to a surveillance-driven culture production and online business models that primarily rely on user classifications and surveillance. These business models revealed themselves to be very successful and created a class of Internet capitalists that ranges at top positions in the social wealth distribution. I then asked how this inequality could be explained.

Fourcade and Healy (2017 [2013]) argue that markets do not (only) mediate social inequality produced elsewhere but contribute themselves to it by generating classification situations that come along with unequal market- and life-chances. I proposed, from a critical political economy perspective, to think about how classification and surveillance reinforce exploitation in contemporary informational capitalism and reminded of the important other side of the story of social inequality that goes beyond market mechanisms, i.e. the problem of social sorting, individual attribution, and opportunity hoarding.

There is a class antagonism between all Internet users and the owners of Internet corporations. Exploitation 2.0 first enables an inverse interdependent welfare: The wealth of Internet service owners is dependent on users, who profit less in terms of money and network-making power. Second, it fosters exclusion: Web service owners ensure that users are excluded from the profit generating conditions and the profit itself through private property rights in the means of communication, classification, and surveillance. Third, Internet service owners are able to appropriate the wealth that is mainly created by users in their online time: Without the users' activity, social media could not sell anything to the advertising industry and could not be profitable.

What exploitation adds to the notion of unequally distributed life-chances is that conflicts between classes not only concern the distribution and value of resources, "but also by the nature of the interactions and interdependencies generated by the use of those resources in productive activity" (Wright 2002, 844-5). Following this line of argumentation also means that omitting the concept of exploitation as a key category to understand structural social inequality in informational capitalism and substituting it by an accumulation of market effects is problematic because it is not able to grasp antagonistic social relations. With exploitation there are social groups that are at the same time in opposition but also interdependent, in societies with monopolies in the means of realising one's labour force – which includes the human capabilities to cognition, communication, and cooperation. This implies at least the following: First, there are not only disadvantaged groups but groups that are excluded from access to resources. Second, these relations are inherently conflictual because improvements for one social group simultaneously mean losses for the other social group. Third, "the conflict over exploitation is not settled in the reciprocal compromise of a contractual moment; it is continually present in the ongoing interactions through which labor is performed" (Wright 2002, 846).

Exploiters have to impose control technologies on the exploited. In the case of social media, wall pages are intersected by advertisements and promotion offers,

privacy settings leave the commercial use of generated information through social media capital unaffected, and users are lured into online walled gardens. Thus, privacy crises are inscribed to this mode. Finally, the experience of conflict and of power over the exploited gives hope for the affected to experience commonalities, to organise society and the Internet cooperatively in an alternative form, and not to naturalise class situations as fate that has to be accepted.

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