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THE BRAVE NEW SOCIAL MEDIA: CONTRADICTORY INFORMATION AND COMMUNICATION TECHNOLOGIES AND THE STATE-CAPITALIST SURVEILLANCE COMPLEX**

Abstract. *The paper looks at the wider role of information and communication technologies (ICTs) in the context of their use in global political struggles, but also on the back of their sweeping abuse for surveillance by global capitalist corporations and state institutions. A general question is raised: can the Internet and social media be perceived as a means of social progress or as mechanisms of oppression? The author proceeds from a critical perspective and emphasises that ICTs must be analysed as parts of the social totality. They cannot be understood in a dichotomous way, but only as being full of contradictions. Yet, contradictions do not entail relativism – class inequalities, exploitation and domination are filtered through ICTs together with the manifold antagonisms emerging from capitalist societies.*
Keywords: *political economy of communication, critical theory, the Internet, online social media, surveillance society.*

Introduction

The Internet and other new information and communication technologies (ICTs) have, at least in most developed capitalist countries, been part and parcel of people's lives for well over a decade now. Due to their social normalisation, questions about the overall impact of new ICTs are slowly but surely disappearing. Generations lacking a historical memory of the pre-Internet era rarely even reflect on the changes these technologies have brought to our everyday-life practices or how life would be without being constantly *connected*. ICTs and the Internet, together with all the platforms running on them, thus simply *are*. It seems as if general debates about the motives, purpose, and their social desirability are superfluous. Even with

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pervasive inequalities and new mechanisms of exclusion, which have extended to digital environments (Mariën and Prodnik, 2014), the commonly accepted view remains that we are living in a media-saturated world of information (over)abundance.

This paper takes a step back and in an unfashionable manner looks at the wider role of ICTs in the existing social context. It asks a very general question, namely, can the Internet – together with online social media as its currently most significant part – be considered as a means of possible human emancipation, or on the contrary should these technologies be understood as mechanisms of social oppression? What therefore interests us here is whether advancements in ICTs can themselves be interpreted as leading to social progress, as is often tacitly assumed. Instead of only focusing on particular issues, this paper approaches the role of ICTs in the most holistic and overarching manner possible.

This research question is posed in the context of the wide-ranging use of social media and ICTs by activists in political struggles around the world, but also on the back of appalling revelations about the sweeping use of these same technologies for the surveillance and control of citizens by global capitalist corporations and state institutions in (at least formally) democratic Western societies. On a more specific level, this paper takes a closer look at these latter issues of ubiquitous surveillance (section 4). It embeds them in the social totality and analytically distinguishes between two types of surveillance: political surveillance (as the surveillance state) and economic surveillance (as surveillance capitalism). The paper also looks in more detail at how to theoretically think about communication technologies (section 3) by taking the perspective of critical theory and the political economy of communication (section 2). In the conclusion (section 5), an insight is given into the seemingly contradictory role communication technologies play in society.

The Internet's Coming of Age and Critical Approaches

One of Ofcom's (2011) recent communication reports disclosed that almost half the teenagers in the United Kingdom who use smartphones also use them on the toilet. What at first might seem like a banal statistical titbit in fact also speaks volumes about the pervasiveness of new ICTs and how *natural* their use seems for those growing up with them. The normalisation and omnipresence of ICTs have spread across the entire social fabric, including academia. Due to these developments, general academic inquiries have moved into the background, with narrow and delimited analyses of the role played by this technology coming to the fore. It is increasingly uncommon to consider the potential of ICTs generally. One reason for this is that in fact

all aspects of our societies – and thus also different disciplines in the social sciences and humanities alike – have somehow been affected by their ubiquity. This consequently means that particular problems, not general issues, are now typically studied.

Let us, for example, consider how the role of digital ICTs is today assessed and analysed in relation to politics. One of the issues considered in academic inquiries is the role of online social networks in mass uprisings around the globe, by focusing on how Twitter was used in the Occupy movement (Penney and Daddas, 2014). Questions are raised as to how activist groups are using these e-tools, which in their struggles enable the rapid circulation of information, and in which ways they connect to face-to-face activism. Other authors such as Mercea (2011) are assessing whether online activist participation possibly leads to the mobilisation of the unaffiliated into offline protests. Numerous debates are also looking at the role of Web 2.0 platforms in the online political communication of politicians and political parties. They are examining whether the communication of these actors has changed and whether they use ICTs to connect directly with citizens (Bentivegna, 2006), or what potential for deliberation and revival of the public sphere is held by active online citizenship (Dahlgren, 2009). Empirical results abound and comparisons of various contexts and practices provide nuanced and even conflicting evidence. The general consensus remains: There evidently *has been* a substantial change in the sphere of politics. At least *some* citizens use digital ICTs for political empowerment, even if how many and to what extent remains unsettled.

From the General to the Specific and Back Again

As expected, discussions about the Internet have become more specific with experts even dealing in research niches. It is unquestionably vital to move beyond simplistic notions about the impact of digital ICTs since this can provide minute evidence about their role in different social spheres and everyday relations. Yet this must not mean that general questions ought become completely obsolete. We should in fact be able to move in a true dialectical manner from the general to the specific, but also back from the specific to the general. Without questioning the deeper relevance of technological developments, one may fall into the trap of not seeing the wood for the trees: What is the social relevance of the mentioned developments and also of one's research for democratic and egalitarian societies where the potential and freedom of everybody is fulfilled? What society do we want to live in? Only by taking a step back, by incorporating specific issues in a more general context, is it possible to approach such overarching questions.

General research is sometimes portrayed as outright irrelevant because it builds on what has dismissively been labelled "grand Narratives" that came under attack after the postmodernist turn (Eagleton, 1996). As Eagleton (1996: 50) observes, "perhaps postmodernists are afraid that an attention to grand narratives will collapse all little narratives into mere effects of them", even though general inquiries, such as Marx's overarching analysis of capital, are regularly aimed at simultaneously studying particular issues as well. In Eagleton's (ibid.: 14–17) view, this crisis of epistemology can be attributed to the political disorientation in societies of spectacle, but he remains steadfast that we should recognise there is "no way of constructing the concrete without general categories" (ibid.: 50). Wallerstein (1999: 24) similarly emphasised that it is impossible to make meaningful statements in the social sciences "that are not historical, and there are no sensible historical analyses one can undertake that do not make use of the so-called generalizations".

This paper follows a similar epistemological approach, one that is distinctive of critical theory and, more specifically, of critical approaches in media and communication studies (Hardt, 1992; Dyer-Witheford, 1999; Dahlgren, 2009; Andrejevic, 2009; Fuchs, 2009; 2011; 2014). This includes the political economy of communication – which amongst other things analyses power asymmetries and who controls resources in society – as their constituent part (Meehan and Wasko, 2013; Fuchs 2014). Most critical approaches are based in Marxist theoretical and categorical apparatus (ibid.) which, as indicated by Hardt (1992: 27), offers them "a coherent theory of social change that is grounded in the historical and committed to a consideration of the totality of the cultural, political and economic experiences". Besides being historically oriented by emphasising the dynamics of dialectical change, they analyse social phenomena not in isolation, but as parts of the social totality within which they are inevitably embedded. It is one of the goals of dialectical thinking to determine what are the relations and connections between different parts of society and also between these parts and the wider totality, whilst establishing which contradictions emerge from these dynamic relations. Technology must similarly be considered in such a way because it is inseparable from the context in which it develops (Schiller, 1976; Hamelink, 1986; Williams, 1975/2003: Ch. 1). ICTs are thus neither an autonomous force causally producing changes, nor can they be perceived as neutral (ibid.).

Based on these premises, critical approaches are often attacked for allegedly putting too much focus on theoretical issues and general social structures, ignoring empirical analyses and subjective agency. This is hardly the case since much research effort is put into empirical analyses (Meehan and Wasko, 2013) and manifold acts of resistance. Critical approaches do, however, at least implicitly relate research to normative presuppositions and do

not claim to be apolitical. Supposedly neutral approaches are deemed both impossible and also undesirable in struggles against domination and exploitation.

The Good, the Bad and the Ugly Communication Technologies

Fears of the oppressive character of modern societies and the supportive role of technologies in these excesses were ever-present in popular culture of the twentieth century, but they were perhaps most profoundly elaborated in two futuristic novels: George Orwell's *Nineteen Eighty-Four* and Aldous Huxley's *Brave New World*. Both novels portray a bleak view of societies in which technology plays a negative and dehumanising role. Although a dystopian character radiates through both, there is palpable difference between them. This difference was perhaps most concisely elaborated by Postman (1985/2005, xx) when he noted that whilst "Orwell feared that what we hate will ruin us, Huxley feared that what we love will ruin us".

With overwhelming surveillance practices, Orwell's definitive work on *the Big Brother watching you* is regaining ground, which is evident in both its enduring presence in the public discourse and in its continuing popularity with readers. After the scandal of the surveillance practices of the National Security Administration (NSA) broke out in mid-2013, sales of Orwell's book, for example, skyrocketed (Mosbergen, 2013). But Huxley's world of extreme individualism, indifference, and consensual sorting of human beings, where the readymade solution for social wretchedness is a drug called Soma, today appears neither less chilling nor less plausible. Postman (1985/2003: xix, 155–157) was in fact certain it was Huxley's vision, where truth is covered in irrelevance, that has come to fruition. He lamented the ascendance of *the Age of Television*, which irreversibly shifted the content of the public discourse for the worse. He believed "forms of the media favor particular kinds of content" (ibid.: 9), with vivid images predominating fast-paced media. This reduces the quality of a culture and intensifies the prevalence of entertainment as the supraideology. In Postman's technodeterministic argument, it is the old McLuhanian cause – with the *form* of the media defining the content – that leads to social bankruptcy.

Faster, Higher, Stronger: Technological Myths

Gloomy portrayals of the future nonetheless seem more sporadic than their utopian equivalents. Media and communication technologies have for decades, if not centuries, been lauded as harbingers of new, improved societies. Already in 1838, Samuel Morse (in Czitrom, 1982: 12), the

developer of Morse Code, spoke about the possibilities of making "one *neighbourhood* of the whole country" due to revolutionary communications. Perhaps even more famous than this first – and certainly not the last – notion about turning the world into a village was Guglielmo Marconi's hyperbole that "the coming of the wireless era will make war impossible". Marconi was one of the most important innovators of wireless telegraphy (ibid.: 63) and his fantastic vision came only a few years before the outbreak of World War I.

Similarly to other communication technologies of the past (see Czitrom, 1982), the emergence of the Internet was accompanied by exaggerations about the changes that will come about. Mosco (2004) identified three myths that accompanied the development of cyberspace: (a) the end of history; (b) the end of geography; and (c) the end of politics. All myths constructing the *digital sublime*, which oscillates between praise of endless promises on one hand and the demonisation of ICTs on the other (ibid.: 24), were closely connected to the end points, namely, to a radical break with the past and to an unprecedented transformation of society and human relations (*cf.* Fisher, 2010). A similarly revolutionary doctrine accompanied the (allegedly neutral) rise of the so-called information society (Dyer-Witheford, 1999: 22–26) and was especially evident with development of the Internet. This was exemplified in what Fisher (2010) called *the digital discourse*, a celebration of network technologies, pervasive not only throughout popular jargon but also among academia and in political and economic circles. According to Curran (2012), it was not only the formative years of the Internet but also its later development in the 2000s that prompted four sets of utopian predictions. The Net was supposed to: (a) bring about a radical economic transformation, namely vast prosperity and cornucopia; (b) offer a path to a global understanding between populations of the world; (c) lead to a completely new form of democracy and politics; and (d) produce a renaissance of journalism, since media moguls and conglomerate control over the media were allegedly a thing of the past.

It is noteworthy that even more modest celebratory appraisals characterise ICTs with inherently progressive social features. Interactivity, as one of the main characteristics, is generally interpreted as democratically empowering in itself because control over communication in the public sphere allegedly disperses throughout society (for examples, see Andrejevic, 2009; *cf.* Fuchs, 2011: Ch. 7; 2014: 55–57). The mere *possibility* of bottom-up communication, which is contrasted to the top-down and one-way communication distinctive of traditional mass media, is automatically comprehended as challenging to the powers that be. For Andrejevic (2009: 37), this is "a keystone of media ideology 2.0".

Questioning the Celebratory Accounts of Communication Technologies

As emphasised by Curran and others (2012), there certainly *were* changes in different social spheres with the ascendance of ubiquitous new ICTs, but these developments did not bring about a revolutionary *social* transformation in itself. This was especially so because the "influence of the Internet is filtered through the structures and processes of society" (Curran, 2012: 9). ICTs are an important *part* of the social totality, but do not autonomously *determine* its path or causally produce outcomes (*cf.* Schiller, 1976: 89; Hamelink, 1986: 19). Insistence on the 'social autonomy' of technologies can itself be viewed as a political concept because "technology is not a self-generating process, but socially conditioned and shaped by the social structure that applies it" (Hamelink, 1986: 17). The origins, construction, development, and socially intended uses, together with the actual application of technologies in certain social contexts, are all embedded in a complex set of power relations and interests, which limits the possibilities of how/which technologies are developed and what potential they bring about (*cf.* Allmer, 2014). As stressed by Williams (1975/2003: 7), there are always *intentions* present in the process of research and development of modern technologies. The specific purposes for which they will be used are already part of this process.

Arguing against hyper-optimistic accounts, Mosco (2014: 28) recently emphasised that we should do "more than marvel at the advance in technology over the decades, because history suggests that technological progress does not necessarily bring about advances in the practice of democracy, and sometimes can result in genuine regression" (*cf.* Mattelart, 2010: 200). The growing use of cloud-computing and new data-management capabilities by political elites and corporations is, for example, by no means inevitably aimed at deepening democracy or expanding the political participation of citizens. In the current context, these developments could instead bring about an increase in control over populations, an intensification of surveillance, and a list of new environmental issues (see Mosco, 2014).

In contrast to optimistic or dystopian accounts of ICTs, authors basing their research in critical theory have argued that the emergence of the Internet and digital ICTs did not bring about a radical rupture. Instead, these changes frequently even facilitated tendencies inherent to capitalist societies, including the further expansion of commodification, increasing inequalities, and continuing the unequal distribution of power (e.g. Schiller, 1999; Mosco, 2004; Andrejevic, 2009; Fisher, 2010; Fuchs, 2009; 2011; Prodnik, 2014). Technological changes and their social influence should therefore be seen in the context of a dialectical contradiction of continuity

and discontinuity where the key continuity is the existing relations of production, namely the persistence of capitalism, whereas the discontinuity is evident in the changing forces of production, namely in technological developments (see Fuchs, 2014; Prodnik, 2014: 146–148).

Critical authors are not only sceptical about the *extent* of changes, but are similarly reserved when it comes to celebrating the *social usefulness* of technological developments emerging from capitalist relations. For them, it does not *inevitably* follow that technological advancements are positive. Often only implicitly, but developments in ICTs are overwhelmingly depicted as something good, even though there are always certain *Orwellian* or *Huxleyan* fears present. *Social progress* in capitalist societies can nowadays hardly be imagined without further *technological revolutions*. One should only consider societies where new ICTs are not widely available or where contributions to technological breakthroughs are rare. In the best-case scenario, they are labelled un(der)developed or exotic, and in the worst case primitive. Mosco (1982) suggestively labelled such glorification of technological advancements *pushbutton fantasies*. It is beside the point to dwell on the reasons for this, but one could speculate that it can, on one hand, be attributed to the predominance of instrumental reason aimed at efficiency (*cf.* Fuchs, 2009) – with mechanistic knowledge of the Enlightenment, where nature is bound to be scientifically mastered (Hamelink, 1986) – and, on the other hand, to the laws of the capitalist system: the competitive market struggle which pushes individual capitals to gain advantage by inventing and improving productive capacities (Callinicos, 2003: 35–41).

Class is back: Communication Technologies in the Political Economy Perspective

Arguing against celebratory accounts, Herbert Schiller (1976) was one of the key authors in political economy who closely connected (communication) technologies to domination and cultural imperialism (*cf.* Maxwell, 2003). The conception and design of technologies are reliant on the power interests, which is also reflected in their socially predominant use (even if alternative uses are *sometimes* possible). Technology is thus an "expression of the capitalistic structures and the strivings from which it emerged" (Schiller, 1976: 50) and serves "the prevailing system of power, though it often contributes to the changes in the organization and distribution of that power" (ibid.: 51). Technology is not only "an integrative part of an exploitative system of production but extends and deepens that exploitation" (ibid.: 55).

Such an uncompromising position meant that Herbert Schiller was portrayed as a technophobe by administrative scholars (see Maxwell, 2003:

6–7), even though he merely rejected celebratory technological determinism. Crucially, it is not technological changes as such that are scrutinised, but social choices connected to the technologies and relations in which they are embedded. It is not irrelevant who has control over technologies, what aims are linked to their development, and what are the intended social uses of technologies, which emanate from a profit-driven context. Nor is it *natural* which technologies are to be developed, in what way, who decides on this, and whether these decisions are a result of public deliberation. It is, however, easier to make a caricature out of an argument as if it is talking about *evil technology*.

Three decades ago, Mosco (1982; *cf.* 2004) rejected the notion of technological change being either good or bad for society as a false dichotomy. In his view, this essentially remained a question of class antagonisms. Not everyone benefits or is harmed in the same way and, as a result, we should acknowledge the following:

> *Those who control the production and use of information technology will shape it in ways that are good for some and destructive for others. More concretely, some will make money, have more control over their work lives, and simply know more [...]. For those unable to afford what it takes to buy information or buy privacy, the new services that information technologies provide will simply mean a loss of control over the resources and decisions that affect their lives.* (Mosco, 1982: 8)

Capitalist societies are class societies and the antagonisms distinctive of them are filtered into technologies and their uses. But even though there are struggles connected to the control over resources (in this case the means of communication), they remain fought on unequal terms. Mosco's claims seem especially striking as they have been confirmed in subsequent decades.

The rise of the Surveillance Society and Ubiquitous Surveillance

Celebratory notions have mainly focused on the positives, but another of the key processes accompanying the expansion of digital ICTs has been the unprecedented growth of global surveillance. In Lyon's (2002: 4) view, surveillance has now become one of the central features of modern societies. It seems nearly impossible to find an account that would fail to emphasise both its intensification and expansion (e.g. Lyon, 2002; 2003; Ball and Webster, 2003; Mattelart, 2010; Andrejevic, 2012; Fuchs *et al.*, 2012; Allmer, 2012; 2014; Lyon and Bauman, 2013; Mosco, 2014: 137–155). Different authors (ibid.) stress that surveillance has spilled beyond national and

other formerly solid borders and now routinely encompasses all facets of everyday life (work, private life, play, even intimacy). This means it is possible to track almost everything that moves: from products, commodities and information through to people and social relations (see Lyon and Bauman, 2013: 5). Surveillance is therefore flowing through different spheres (Lyon, 2002: 2) and becoming increasingly flexible and uncontrollable, with older institutions of control becoming more adjustable. Lyon and Bauman (2013) metaphorically described this situation as liquid surveillance, which is "seeping and spreading into many life areas where once it had only marginal sway" (ibid.: 3).

The liquefaction and expansion of surveillance reflects the ubiquity of ICTs within society. Moreover, with the digitisation of surveillance, online surveillance has steadily been merging with its offline counterpart (Lyon, 2002: 1; 2003: 15). It is therefore not only increasingly pervasive and invasive since exceptional technological capabilities also make it more omniscient and cost-effective compared to earlier techniques of physical monitoring (McCoy, 2014). Surveillance is now carried out in an invisible and indirect way, while encompassing an incomparably wider milieu of activities by requiring less human input (Allmer, 2012). As emphasised by Allmer (2012: 120), *quantitative* technological advances have led to *qualitative* transformations in surveillance practices because ICTs offer exceptional abilities to amass and analyse the collected data (*cf.* Mosco, 2014).

Vast class disparities filtered through ICTs are also clear in the case of ubiquitous mass surveillance; details of users and their activities are increasingly transparent and under the watchful eye of the most powerful organisations, but the activities of the latter are impossible to discern in their entirety (Lyon and Bauman, 2013: 12; Greenwald, 2014: 169–171). It is, for example, ever more difficult to monitor globally dominant institutions, whilst it is precisely transnational corporate capital and (supra)state entities that undertake the majority of mass surveillance (Allmer, 2012: 42). Asymmetries are particularly evident in the unequal control of data, technological capacities and means of mass surveillance. These are, as a rule, beyond the reach of ordinary citizens because they demand enormous investments. It is Google or Facebook as dominant online entities that own information on their users' activities and characteristics, not the users of these platforms. Available resources decide the dimensions of surveillance (ibid.) and only powerful actors can mine, store, control, analyse and own vast quantities of valuable data.

The hierarchical power-relations have led critical scholars to define mass surveillance as a form of domination (Mattelart, 2010; Andrejevic, 2012: 75; Fuchs, 2011; Allmer, 2014; Greenwald, 2014: 174). It was the (ab)use of ICTs (and development of specific ICT capacities) that played a crucial role in

amplifying the exceptional domination in global tracking. As pointed out by Mattelart (2010: 2), global information networks have subsequently been instrumental in augmenting the transformation of "citizens into socio-political suspects as well as individualized targets of the market and business order" (Mattelart, 2010: 2). Mattelart's delineation makes it possible to analytically distinguish between political surveillance and economic surveillance as two fundamental types of surveillance.

The Surveillance State: Tracking 'Suspicious' Citizens and other Villains

Political surveillance is carried out by (supra)state authorities with an aim to conserve the existing social order or a specific regime against possible disturbances which in some way question the social hegemony (Mattelart, 2010). Surveillance is often based on a binary opposition between friends versus enemies and good versus evil, but also uses elastic categories that potentially include a variety of actors such as subversives, stigmatised, radical political groups, protest movements, terrorists, (il)legal immigrants, crowds, academic 'pinkos', trade-union agitators and so on (ibid.). These categories are by themselves expansive, but surveillance also deeply influences those not directly monitored.

Surveillance is part and parcel of authoritarian regimes, with China using its infamous Great Firewall to monitor and limit citizens' online traffic, and other superpowers such as Russia abusing ICTs to ensure a tighter grip on communication flows (Mosco, 2014: 151). But it was particularly the September 11 attacks that led to an exponential rise in surveillance practices in democracies as well, with vast financial outlays being channelled into this area (Lyon, 2002; Ball and Webster, 2003; Schiller, 2011). The legalisation of invasive monitoring and its social legitimation through the War on Terror doctrine were only the two most obvious consequences (Mattelart, 2010: 141–147; Schiller, 2011: 278). As stressed by Mattelart (2010: 144), "the hunt for terrorists set off an orgy of data gathering and storage by official institutions and private agencies".

America is currently at the forefront of global surveillance activities, but its covert practices date back at least to the end of the nineteenth century (besides, they have always been aimed at preserving the country's global dominion as well) (see Mattelart, 2010; McCoy, 2014). Perhaps the most infamous was the counter-intelligence programme COINTELPRO, which at its peak listed more than half a million American citizens in the so-called Security Index; they were *suspects* and deemed a possible threat due to supposedly un-American behaviour (ibid.; Maxwell, 2003: 19–20; *cf.* Mosco, 1982: 52–54). Other invasive activities historically comprised attacks on subversives, the alternative press, and civil rights movements at home

(planting stories and spreading propaganda), while similar actions were also employed in American interventions abroad (overthrows of governments, plots and blackmailing) (ibid.).

Critical scholars have speculated about the extent of American surveillance capacities for ages. Three decades ago, Mosco (1982: 53) described the NSA as a secretive agency *sucking out* and storing information. Nonetheless, it was only Edward Snowden's leaks about the NSA and its international counterparts that revealed the enormity of the global surveillance apparatus that went beyond even the most pessimistic accounts. According to Snowden (in Harding, 2014: 2, 12), the NSA has used all its skills to "master the Internet". Its goal was to collect information on everybody, everywhere and to store it indefinitely. This included data and metadata from communication in both America and abroad (*cf.* Mosco, 2014: 183–186). In Snowden's (in Harding, 2014: 39) own words, the NSA was "intent on making every conversation and every form of behaviour in the world known to them".

Snowden's statements might seem scaremongering, but leaked documents proving U.S. surveillance to a large extent have already achieved this goal. With PRISM, one of the key programs the NSA uses, it can obtain *anything* it wants from the biggest Internet companies, without a need to hack accounts or passwords, because data is collected directly from servers (Greenwald, 2014: 101–116). The NSA has a secret strategic partnership with over 80 major corporations (including Microsoft, Google, Facebook and Apple), which also enables it access to international communication systems (ibid.; *cf.* Harding, 2014: 11; Mosco, 2014: 184–186). Moreover, the X-Keyscore program makes it possible to access the online activities of users, such as e-mail correspondence, social media activities, and browsing history in 'real time', without prior authorisation (Greenwald, 2014: 151–163). Documents on the Boundless Informant program revealed that the NSA has processed over 20 billion communicative events *each day* since mid-2012, whilst its interception system is capable of reaching 75% of *all* U.S. Internet traffic (ibid.: 81, 92–93, 98–99).

No other institution in the world has surveillance capacities comparable to the NSA's. Portraying its efforts only as well-intentioned attempts to ensure national security is discredited by the fact that the surveillance was also used for the diplomatic manipulation and economic gains of America. The NSA has eavesdropped on the leaders of states, diplomats, EU officials, and heads of international organisations, while it has also spied on financial institutions and foreign companies (economic espionage). It has also regularly intercepted routers and servers and implanted backdoor surveillance in them, hacked computers and installed malware, harvested millions of images daily for facial recognition and the like (ibid.). For Greenwald (2014: 90, 131), a journalist who published Snowden's leaks, the most disturbing

fact was that these breaches happened without any accountability, transparency or limits in place. No specific reason was needed to collect private communication. Simply, "their institutional mission is to collect everything" (ibid.: 141). In Mosco's (2014: 144) view, this could mean that the NSA is the biggest threat to communication privacy in the world.

The Surveillance Capitalism: Discriminating and Exploiting Users Online

Economic surveillance is the second fundamental type of monitoring citizens, with Mosco (2014) also labelling it *surveillance capitalism*. It is widely used in ICTs, most significantly by social media corporations such as Facebook and Google (see Fuchs *et al.*, 2012; Allmer, 2012; 2014; Mosco, 2014: 137–155), but also by countless other companies that track citizens-as-consumers (Ball and Webster, 2003). In contrast to political surveillance, economic surveillance is not necessarily aimed at a specific citizen since one's identity can remain anonymous; it is one's characteristics and interests that matter because they render possible the profiling of users that can be sold to prospective buyers (primarily advertisers) (Lyon, 2003; Turow, 2011; Napoli, 2011; Fuchs *et al.,* 2012; Allmer, 2012; 2014). It therefore turns privacy and personal information into tradable commodities, enabling targeted advertising, which is the main source of revenue for social media (ibid.). Advertising, for example, represented over 90% of Google's total revenue (over USD 50 billion) in 2013. According to Andrejevic (2009: 43), it is not insignificant that advertising has become a "natural" economic model for digital media because such a structure "provides both the economic glue that holds the new version of the social together and the one common denominator, content-wise".

Measuring audiences was an essential part of capitalist mass media industries throughout the twentieth century (Napoli, 2011: Ch. 1). Digitalisation, however, produced a qualitative change with digital ICTs providing unprecedented detail and rationalisation of measuring and control (to the extent they can be *too* measurable), helped by the fragmentation of environments and interactivity (ibid.). Citizens subjected to surveillance capitalism are: (a) exploited; (b) subsumed into a capitalist hyper-consumption culture (the fusion of non-commodified communication with advertising, as mentioned above); and (c) discriminated. They are economically exploited, because "users' digital labour generates value that is appropriated by capital. [...] Users work without pay and produce content, communication, social relations, and transaction data that become part of data commodities" (Fuchs 2014: 57). Web 2.0 platforms would not exist without users themselves creating the content; because these are profit-making companies,

they are exploiting the unpaid activities of their users, thus strengthening inequalities.

Citizens are also discriminated in what can be called *consumer surveillance* (Maxwell, 2000). Corporations instrumentalise audiences through measuring, quantification and segmentation techniques because they understand them as potential markets for products (Gandy, 2004; *cf.* Maxwell, 2000; Napoli, 2011). Gandy (2004: 328) believes that these efforts of rationalised control are "normalized as a way of life for those for whom the production of audiences is a routine activity". Even though their aims cannot be fully achieved, they objectively discriminate against groups that hold little value for them. Market segmentation, which assists in defining the *quality* of audiences, is carried out according to different social characteristics like race, socio-cultural class, gender, income, age, location, family status, nationality and so on (see Maxwell, 2000; Lyon, 2003; Gandy, 2004; Napoli, 2011; Turow, 2011). According to Turow (2011), there is a massive effort under way to socially profile users. He defines this as "a revolution in the ways marketers and media intrude in – and shape – our lives" (ibid.: 1–2) due to the subtle and controversial forms of discrimination.

The economic type of surveillance is more opaque and hidden than political surveillance, but it could have more significant long-term social consequences that are currently difficult to fully comprehend. We lack exact knowledge about the criteria leading to citizen categorisation, except for the fact that there is continuous numerical analysis of the online activities of audiences where social relationships, 'likes' and communication of users are constantly monitored, calculated and (ab)used (Napoli, 2011; Turow, 2011; Andrejevic, 2012). Categorisation is mostly automatised through algorithmic logic and increasingly affects the choices and chances of individuals by serving as an invisible exclusionary mechanism (see Lyon, 2003). As pointed out by Lyon (2003: 14), only groups that are valuable recieve special consideration and good deals. Digital profiling thus leads to "grave social divisions and privacy issues. Marketers divide people into *targets* and *waste*" (Turow, 2011: 7), with the latter clearly irrelevant to them. Those worse off in society are thus further restricted in the possibilities available to them.

The Military-Industrial-Surveillance Complex

Even though these two fundamental types of surveillance must be analytically and empirically separated, they are also closely intertwined. These connections are palpable at different levels, including in the: (a) ways actors carrying out surveillance achieve their objectives; (b) (ab)use of particular ICTs for surveillance; and (c) close historical interconnections between structurally separate economic and political entities.

The ultimate objectives of economic and political surveillance clearly differ. In the first case, citizens are unwittingly transformed into segregated consumers and producers of profits and, in the second, they are deemed to be potential suspects. However, both types are based on instrumental reasoning and employ a similar logic to realise their goals. The reasoning behind surveillance is in the pre-emption of behaviour: to try and forecast what the future will be like and correspondingly influence behaviour (*cf.* Andrejevic, 2009; 2012). Classifying citizens through statistical probabilities and assessing risks/potentials is a crucial part of prediction (ibid.; Lyon, 2003: 15–16). Even though these practices are not neutral and often rest on stereotypes, such classifications nevertheless determine the practices of those relying on surveillance (thus further strengthening discrimination). As emphasised by Mosco (2014: 181), assessing patterns in society is the goal of big data, since it "is increasingly used to analyze, model, and forecast human behaviour" (ibid.: 182). It is only *what will be* that is important, not *why*.

The interconnection of political and economic surveillance is also palpable with the use of ICTs themselves. The same ICTs and online platforms are (ab)used in both types of surveillance. Major technological developments were, furthermore, launched by state interventions, especially through research and development funding of the U.S. military. These interconnections have led critical authors, such as Herbert Schiller, to write about the military-industrial-communication complex (see Maxwell, 2003: Ch. 2). While the role of political interventions has been documented elsewhere (e.g. Prodnik, 2014), it remains worth-while to stress that World War I "prompted the US government to establish a permanent link between business interests and the armed forces" (Mattelart, 2010: 37; *cf.* Schiller, 2011: 267). The plan was to build supremacy and "technologies allowing for the control of communication networks as a basis of strategic power" (ibid.). Cooperation between the American industrial complex and national defence was wholly institutionalised during the Cold War (ibid.).

As noted by Czitrom (1982: 185), each medium in history was subsumed into the corporate and military context, with the military importance of technological progress constantly growing. Military funding was indispensable for development of the Internet (*cf.* Curran, 2012: Ch. 2) and "it was through military contracts that the data-processing industry took off as a strategic sector" (Mattelart, 2010: 55). Mosco (2014: 184) stresses how the NSA built a close relationship with Silicon Valley, whilst "the US military is a leader in big-data analytics" (ibid.: 183). As revealed by Snowden (in Greenwald, 2014: 47), "the state, especially the NSA, was working hand in hand with the private tech industry to get full access to people's communications". Even though the NSA is a public agency, it has numerous partnerships with private corporations, with 70% of the national intelligence budget being spent

on the private sector (ibid.: 101).[1] In Dan Schiller's (2011: 271) opinion, there is a "pervasive coupling of the repressive apparatus of the state with corporate economy", which cannot be disregarded because the militarisation of communications in America "is both deep-seated and multifaceted" (ibid.: 279).

Conclusion

It has been argued in this paper that new ICTs and the Internet, together with online social media, must be considered as parts of the social totality if they are to be reappraised critically. Even though detailed empirical investigations are indispensable, general inquiries reflecting their wider social impact must not be disregarded. Technologies are embedded in political, cultural and economic antagonisms, and power relations distinctive of specific historical epochs. These specifics influence their emergence, development and uses, which is why ICTs simultaneously constrain and enable different human practices.

Instead of approaching ICTs in a dichotomous way, which portrays technological changes as either good or bad in themselves, a critical political economy perspective must proceed from the dialectical notion that ICTs are, in their essence, contradictory tools: they simultaneously offer emancipatory potential and act as mechanisms of domination (*cf.* Fuchs, 2009; 2011; Andrejevic, 2009; 2012; Allmer, 2014). One cannot be reflected upon without the other because ICTs are (and have been) a constituent part of the existing world to the extent that they are now fully embedded in the capitalist accumulation cycle, which deeply and unequally influences almost everyone in the world (Fuchs, 2011; 2014). Dan Schiller (1999) defined this as *digital capitalism*, denoting a worldwide system of electronic information architecture and digital networks, with this communicative technological infrastructure constitutive for global financial transactions, commodity exchange, and the division of labour.

For Dyer-Witheford (1999), one of the Internet's central contradictions was that online environments were commodified, but at the same time served as autonomous media for political struggles. ICTs and social media offer political activists a means for empowering subjectivities by facilitating new forms of communication, collaboration, rapid sharing and access to information at a distance, but these same activities also strengthen capitalist colonisation (Andrejevic, 2012: 82). It is "frenetic interactivity" itself that "helps to mask the forms of control that it works to reproduce: the very

[1] *Significantly enough, the NSA has thirty thousand own employees and sixty thousand outsourced contractors.*

incitation to interact doubles as a technique for managing audiences and challenging their activities" (Andrejevic, 2009: 42). It is *all* users of commercial online platforms such as Facebook and Google who are subjected to vigorous efforts of user surveillance, audience segregation, political control and exploitation – whether they are using those platforms for subversive political practices as well or not.

Contradiction does not presuppose *anything goes* relativism. On the contrary, antagonisms, class inequalities, exploitation and domination are filtered through technologies together with the manifold social contradictions emerging from conflicting capitalist societies themselves. Social struggles are always open, but there are vast structural inequalities in the distribution of power in existing societies. Such inequalities significantly decrease the prospects of the complete realisation of the progressive and emancipatory potential inherent in ICTs because the access to, control over, and ownership of these (and other) resources is highly concentrated in the hands of a few (*cf.* Fuchs, 2009). This is perhaps most profoundly demonstrated in the case of mass surveillance analysed in the paper, which is a form of domination exactly because it is restricted to an elite minority monitoring everyone else.

Vast inequalities are not only profound in the social origins of ICTs (Why has a certain technology, and not some other, emerged? Why was drone technology the one given funding?), in control over them, and in their use, but also in their technical *architecture*. As Postman pointed out (1985/2005), there are certain technical biases present in technologies themselves, but he erroneously attributed them to being medium-specific. First, television (to take Postman's case) *could* in fact be used in an entirely different way, and not only as a vehicle for entertainment, but it is part of a totality where profitableness is the prime driving factor. Similarly, no technical *need* exists for Google or Facebook to abuse privacy, but this would destroy their existing economic model (*cf.* Fuchs, 2011: 121). Second, and more importantly, the architecture of technologies is indeed not irrelevant and has *inherent biases* (see Hamelink, 1986), but its construction is also not neutral. Corporate social media are for example deliberately being built in a way that corresponds to the fact that they will act as profit-making corporations.

Despite the fact that ICTs and social media are contradictory tools which offer new avenues for struggles, these struggles clearly remain fought on completely unequal terms in existing society. Consequently, not everyone benefits or is harmed in the same way from technological developments.[2] Herbert Schiller (1976: 45) lucidly explicated this contradiction when he

[2] *Especially if focus was on a long-lasting blind-spot of communication and media studies: on the production process and the slave-like conditions in which ICTs (hardware) are produced.*

emphasised how "freedoms that are formally impressive may be substantively oppressive when they reinforce prevailing inequalities while claiming to be providing generalized opportunity for all". The reasons elaborated above contribute to the fact that ICTs more often than not serve to either strengthen or even actively reproduce existing structural inequalities and power relations, with technological *progress* subsequently not necessarily entailing *social* progress as well.

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