Karl Marx @ Internet Studies

Christian Fuchs
University of Westminster, UK

Nick Dyer-Witheford
University of Western Ontario, Canada

Abstract
The task of this paper is to point out the relevance of Karl Marx for Internet Studies. Marxian concepts that have been reflected implicitly or explicitly in Internet Studies include: (1) dialectics; (2) capitalism; (3) commodity/commodification; (4) surplus value, exploitation, alienation, class; (5) globalization; (6) ideology/ideology critique; (7) art and aesthetics; (8) class struggle; (9) commons; (10) public sphere; (11) communism. The paper provides a literature overview for showing that, and how, Marxian concepts have been used in Internet Studies. Internet Studies to a certain extent analyse the Internet, economy and society in Marxist-inspired studies terms, yet do not acknowledge the connection to Marx and thus seem superficial in their various approaches discussing capitalism, exploitation and domination. We argue that it is time to actively remember that Marx is the founding figure of Critical Studies and that Marxian analyses are crucial for understanding the contemporary role of the Internet and the media in society.

Introduction

William Dutton has argued that as 'Internet and related ICTs are transforming the way the world communicates, works and learns' (Dutton, 2005: 13), it is 'time to think again

Corresponding author:
Christian Fuchs, Communication and Media Research Institute (CAMRI); School of Media, Arts and Design, University of Westminster, Watford Road, Northwick Park, Middlesex, HA1 3TP, United Kingdom.
Email: christian.fuchs@uti.at

about transformation through ICTs' (Dutton, 2005: 13). One may add to this assessment that as the Internet shapes our lives so that many people are almost continuously online every day, Internet Studies (IS) has become a crucial field that is engaged in thinking about the transformations of society, individuality, politics, economy, culture and nature.

The current economic crisis, which started as a housing and financial crisis, but soon became a world crisis of capitalism, has resulted in a renewed interest in approaches that label themselves as explicitly being inspired by Karl Marx's works (Harvey, 2010; Žižek, 2009, 2010b). In this context it is important to reflect on the state of those approaches within IS that explicitly or implicitly use Marxian concepts. IS to a certain extent analyse the economy and society in Marxist-inspired studies terms, yet do not acknowledge the connection to Marx and thus seem superficial in their various approaches discussing capitalism, exploitation and domination. The goal of this paper is to show the importance of Marx's theory and categories for IS by way of a literature review that shows both that, and how, diverse authors and works in IS have used Marxian concepts.

Our review is organized around 11 Marxian concepts:

1) dialectics;
2) capitalism;
3) commodity/commodification;
4) surplus value, exploitation, alienation, class;
5) globalization;
6) ideology/ideology critique;
7) art and aesthetics;
8) class struggle;
9) commons;
10) public sphere;
11) communism.

Dealing with Marx and Marxian concepts is necessarily a normative project. Marx's own works are shaped by grounded normative judgements (Lukes, 1985) that condemn capitalism as oppressive, exploitative, alienating, estranging and heteronomous, and present an alternative vision of a better world ('the realm of freedom') that is characterized by well-rounded individuality, pluralistic activities, abundance, the abolition of hard work and wage labour due to technological productivity, the disappearance of the performance principle and exchange, the free production and distribution of goods ('from each according to his ability, to each according to his needs'), and free time for idle and higher activity. However, we argue for acknowledging the importance of Marxian analysis for IS both because (a) we think it is an important normative project to explore the role of the Internet in struggles for emancipation that establish a participatory democracy, and (b) we think that this sharpens the theoretical precision of IS.

Mosco stresses that Marxian political economy decentres the media by 'placing in the foreground the analysis of capitalism, including the development of the forces and relations of production, commodification and the production of surplus value, social class divisions and struggles, contradictions and oppositional movements' (Mosco, 2009: 94). We add to this analysis some further crucial Marxian concepts: globalization, ideology, public sphere, art and aesthetics, commons and communism. These additions especially

stress the political and cultural dimensions of Marx's works and their relevance for contemporary discussions about the Internet.

We first discuss the relevance of Marx today, then the relevance of Marxian concepts in IS and finally draw some conclusions.

Marx today

Žižek (2010b) argues that the recent world economic crisis has resulted in a renewed interest in the Marxian Critique of the Political Economy. This is shown by the attention recently paid to Marx in the mainstream media. *Time* magazine, for example, had Marx on its cover and asked about the global financial crisis: What would Marx think? (*Time Magazine*, 2 February 2009). This rediscovery marks both the perceived historical distance of the Cold War in the era of a triumphalist global capitalism and the enduring relevance of Marx's analysis and critique of capitalism. It also discloses, however inadvertently, that economic issues such as class, exploitation and economic crisis form the heart of contemporary society. It would indeed be odd to discount the central, structural and pathological role played by capitalism in an array of events that have captivated global attention recently, including mining disasters (and near disasters) in the US, Chile, China and New Zealand, as well as the devastation of the Gulf of Mexico, the advancing threat of global warming and the sub-prime mortgage disaster. Although a persistent refrain is 'Marx is dead, long live capitalism', Marx is coming back again today.

Six aspects of Marx's works are especially relevant for the analysis of contemporary capitalism.

- The globalization of capitalism, highlighted by many contemporary social theorists, is an important aspect in the works of Marx and Engels (e.g. Callinicos, 2003). Connected to this topic is also the Marxian theme of international solidarity as a form of resistance that seems to be practised today by the altermondialiste movement and the Occupy movement.
- The importance of technology, knowledge and the media in contemporary society was anticipated by the Marxian focus on machinery, means of communication and the general intellect (see, for example, Dyer-Witheford, 1999; Fuchs, 2008, 2011; Hardt and Negri, 2005; McChesney, 2007).
- The immiserization caused by neoliberal capitalism suggests a renewed interest in the Marxian category of class (see, for example, Harvey, 2005).
- The global war against terror after 9/11 and its violent and repressive results, such as human casualties and intensified surveillance, suggest a renewed interest in Marxian theories of imperialism (see, for example, Fuchs, 2011: ch. 5; Hardt and Negri, 2000; Harvey, 2003).
- The ecological crisis reactualizes a theme that runs throughout Marxian works: that there is an antagonism between modern industrialism and nature that results in ecological destruction (see, for example, O'Connor, 1998).
- The new global economic crisis that started in 2008 has shown that Marxist crisis theory is still important today (Foster and Magdoff, 2009). Capitalism seems to be inherently crisis-ridden.

Žižek argues that the antagonisms of contemporary capitalism in the context of the ecological crisis, intellectual property, biogenetics, new forms of apartheid and slums show that we still need the Marxian notion of class and that there is a need to renew Marxism and to defend its lost causes in order to 'render problematic the all-too-easy liberal-democratic alternative' that is posed by the new forms of a soft capitalism that promise but fails to realize ideals such as participation, self-organization and cooperation (Žižek, 2008: 6). Žižek (2010b: ch. 3) argues that the global capitalist crisis shows the need for the return of the critique of the political economy. Therborn writes that the 'new constellations of power and new possibilities of resistance' in the 21st century require retaining the 'Marxian idea that human emancipation from exploitation, oppression, discrimination and the inevitable linkage between privilege and misery can come only from struggle by the exploited and disadvantaged themselves' (Therborn, 2008: 61). Hobsbawm (2011: 12) argues that for understanding the global dimension of contemporary capitalism, capitalism's contradictions and crises and the existence of socioeconomic inequality we 'must ask Marx's questions' (p. 13). 'Economic and political liberalism, singly or in combination, cannot provide the solution to the problems of the twenty-first century. Once again the time has come to take Marx seriously' (Hobsbawm, 2011: 419). Jameson writes that global capitalism, 'its crises and the catastrophes appropriate to this present' and global unemployment show that 'Marx remains as inexhaustible as capital itself' (Jameson, 2011: 1) and make *Capital. Volume 1* (Marx, 1867) a most timely book. Eagleton (2011) notes that never a thinker was never so travestied as Marx and shows that the contrary of what the common prejudices claim about Marx is the core of his works.

The implication for IS is that it should give specific attention to the analysis of how capitalism shapes and is shaped by the Internet. This means that there is a need for rethinking IS and reorienting it as a Critique of the Political Economy and Critical Theory of the Internet approach that takes into account the specific character of Marxian analysis of media, technology and communication to analyse 'how capitalist structures shape the media' (McChesney, 2007: 79), the role of communication in the 'structure of social relations and […] social power', with a particular concern for the analysis of that role in the 'system of social power called capitalism' (Garnham, 1990: 7), and 'the analysis of the relationship of media and capitalist society' (Knoche, 2005: 105).

In 20th century Marxism, the critical analysis of media, communication and culture has emerged as a novel quality due to the transformations undergone by capitalism. Early 20th century approaches attending to culture and ideology included those by Gramsci, Lukács and Korsch. The latter two thinkers influenced Frankfurt School Critical Theory (Kellner, 1989), while Gramsci had an important influence on British Cultural Studies (Turner, 2003). Frankfurt School Theory and British Cultural Studies differ in several respects, but they share a common interest in ideology critique. In addition, Adorno, Horkheimer, Marcuse, Benjamin, Williams and EP Thompson have had a profound knowledge of, interest in and made thorough use of Marx's works. Cultural Studies has also been influenced by Althusser's theory of ideology (Turner, 2003). The focus on ideology has been challenged by Critical Political Economy scholars like Smythe or Garnham, who stress the economic functions of the media, whereas other political economists, such as Schiller, Golding, Murdock, Herman, Chomsky and McChesney,

acknowledge the importance of the economic critique of the media, but have continued to also stress the role of media as producers of ideology (Mosco, 2009). More recent developments in Marxist theories of culture and communication have included efforts to integrate diverse approaches (e.g. Kellner, 1995), theories of alternative media that have been implicitly or explicitly inspired by Enzenberger's version of Critical Theory (Downing, 2001), and the emergence of the importance of Autonomist Marxism (Virno and Hardt, 2006). Marxist Studies of the Internet can make use of this rich history of 20th century Marxism.

Critical studies of the Internet have been influenced by various strands of Marxist Cultural and Media theory, such as Ideology Critique (e.g. the concept of Net Critique: Lovink and Schultz, 1997), Autonomist Marxism (Dyer-Witheford, 1999; Fuchs, 2008; Hakken, 2003), Critical Political Economy (Andrejevic, 2007, 2009; Fuchs, 2009b, 2010a, 2011; Hakken, 2003) or Critical Theory (Andrejevic, 2009; Fuchs, 2008, 2011; Taylor, 2009).

Marxist Internet Studies – Concepts

The first relevant Marxian concept is *dialectics*. Marxian dialectics is 'in its very essence critical and revolutionary' because 'it regards every historically developed form as being in a fluid state, in motion, and therefore grasps its transient aspect as well. […] the movement of capitalist society is full of contradictions' (Marx, 1867: 103). Fuchs's (2011) approach has an epistemological and ontological focus on dialectical philosophy in order to conceptualize the relationship Internet/web 2.0 and society not as one dimensional and techno-deterministic, but as complex, dynamic and contradictory (Fuchs, 2009b, 2011). Lunenfeld (1999) and Heim (1999) have spoken of the 'digital dialectic'. Such approaches are related to the dialectical insight of the critical theory of technology that technology is 'an "ambivalent" process of development suspended between different possibilities' (Feenberg, 2002: 15).

Marcuse (1941) wanted to avoid deterministic dialectics and to bring about a transition from a structural-functionalist dialectic towards a human-centred dialectic. Therefore, he argued that capitalism is dialectical because of its objective antagonistic structures and that the negation of this negativity can only be achieved by human praxis. The Internet or specific internets have multiple – at least two – potential effects on society and social systems that can co-exist or stand in contradiction to each other. Which potentials are realized is based on how society, interests, power structures and struggles shape the design and usage of technology in multiple ways that are also potentially contradictory. One should therefore think about the Internet dialectically just like Marx thought about technology in capitalism as being shaped by an antagonism between productive forces and relations of production. Networked productive forces are in capitalism 'antithetical forms', which are at the same time 'mines to explode' capitalism (Marx, 1857/1858: 159) and governed by class relations that are 'no longer productive but destructive forces' (Marx and Engels, 1846: 60). So, for example, the services created by Google anticipate a commons-based public Internet from which all benefit and create new potentials for human cooperation, whereas the freedom (free service access) that it provides is now enabled by online surveillance and user commodification that threatens

consumer privacy and results in the economic exploitation of users. The solution is not to abolish or replace Google, but to argue for its transformation into a publicly organized and controlled search engine (e.g. that could be run as collaborative project of public universities). The Internet holds at the same time potentials for 'capitalist spectacle and commodification' and the construction of 'cybersituations' that are 'aimed at progressive change and alternative cultural and social forms' (Best and Kellner, 2001: 237).

The second cluster of Marxian concepts at work in IS is that of *capitalism/capitalist mode of production/capitalist society*. For Marx, capitalism is a system of capital accumulation, in which the worker 'has permission to work for his own subsistence, that is, to live only insofar as he works for a certain time gratis for the capitalist (and hence also for the latter's co-consumers of surplus value)' so that 'the whole capitalist system of production turns on increasing this gratis labour' which ultimately amounts to 'a system of slavery' (Marx, 1875: 310). The notion of capitalism/the capitalist mode of production is reflected in IS within concepts of communicative capitalism (Dean, 2004, 2005, 2009; Passavant, 2004), global informational capitalism (Fuchs, 2008, 2009a; Schmiede, 2006), the antagonism of the networked digital productive forces and the relations of production (Fuchs, 2008, 2009b; Žižek, 2004: 293), digital capitalism (Schiller, 2000), hypercapitalism (Graham, 2006), or new media/digital visual capitalism (Nakamura, 2008). Beer argues that studying web 2.0 and social networking sites requires 'a more political agenda that is more open to the workings of capitalism' (Beer, 2008: 526)

The third important Marxian category is *commodity/commodification*. The fundamental element of capitalism for Marx is the commodity, a good that is exchanged in a certain quantitative relationship with money: x amount of commodity A = y units of money (Marx, 1867: 127). Commodification is thus the transformation of a social relationship into an exchange relationship between buyer and seller. The notion of commodification has been used in IS, for example as the commodification of the Internet (Fuchs, 2008: ch. 7), the commodification of online privacy (Campbell and Carlson, 2002; Fernback and Papacharissi, 2007), the commodification of community in cyberspace (Campbell, 2008; Fernback, 2004), and the concept of profiling as online commodification of personal information (Elmer, 2004).

Fourthly, IS further use concepts of *class, surplus value, exploitation and alienation*. These notions are inherently related for Marx, who neatly summarizes their connection in his account of how the worker's 'labour has already been alienated from himself by the sale of his labour-power, has been appropriated by the capitalist and incorporated with capital', and is 'realised in a product that does not belong to him' so that the process of capitalist production 'is also the process by which the capitalist consumes labour-power, the product of the labourer is incessantly converted, not only into commodities, but into capital, into value that sucks up the value-creating power, into means of subsistence that buy the person of the labourer, into means of production that command the producers' (Marx, 1867: 716).

Marxist IS include what might be termed 'classic' analyses of class relations and the labour process. These include Huws's (2003) discussion of the emergence of an informational 'cybertariat' or the discussion by Dyer-Witheford and De Peuter (2009) of the imposition of permanent 'crunch-time' (i.e. 60- or 80-hour work weeks) on programmers by video-game corporations.

Marxist IS further map the new dimensions that the extraction of surplus value assumes in cyberspace. Fuchs (2010b) argues that capital accumulation in commercial uses of web 2.0 is based on the infinite exploitation of prosumers, who are sold as Internet prosumer commodities to advertising clients. He bases his analysis on Marx's surplus value concept and Smythe's notion of the audience commodity. Users of the corporate web 2.0 are thus part of the proletarian class exploited by capital (Fuchs, 2010b). Further, Andrejevic speaks of 'the interactive capability of new media to exploit the work of being watched' (Andrejevic, 2002: 239), and Lauer (2008) describes online consumer surveillance as alienated labour. Andrejevic (2009) employs the term 'exploitation 2.0' in order to stress that exploitation remains a fundamental characteristic of the web 2.0 environment. Andrejevic (2007) has also connected the notion of the work of being watched to the category of the digital enclosure. Terranova (2004) has advanced the concept of the exploitation of free labour on the Internet. For Beller, surplus value creation on the Internet is characteristic of a cinematic mode of production (Beller, 2006). Nakamura (2009) describes the racialized exploitation of play workers in online games that are facing maquiladora factory conditions. Burston et al. (2011) have edited a special journal issue about 'digital labour'. Digital labour conferences such as 'Digital labour: Workers, authors, citizens' (University of Ontario, October, 2009; Burston, Dyer-Witheford and Hearn, 2010) and 'The Internet as Playground and Factory' (New School, November, 2009; Scholz, 2013) have achieved extraordinary interest in terms of contributions and attendance and have also resulted in discussions about the relevance of Marx's theory of value for theorizing digital labour (Fuchs, 2010b; Arvidsson and Colleoni, 2012; Fuchs, 2012a, 2012b).

The fifth concept is that of *globalization*. Marx stressed that capitalism has an inherent tendency to globalize because of 'the entanglement of all peoples in the net of the world-market' and 'the international character of the capitalistic regime' (Marx, 1867: 929). The world market, capital export and the global organization of companies are aspects of this capitalist globalization process. Kellner (2002) stresses the importance of Marx's dialectical and critical theory in contemporary 'technocapitalism' for understanding that the globalization and the Internet are contested terrains composed of oppositions. Harvey (1990) says that the rise of a flexible regime of accumulation in combination with new communication technologies has brought about a new phase of time–space compression of capitalism. For Schiller (2000: 135), the Internet is a 'transnational consumer medium' that helps networking digital capitalism. Dyer-Witheford (1999: 130) says that the Internet is an 'electronic pathway' for the 'circulation of money, commodities, and power'. Webster (2002: 77) stresses that information and communication technologies (ICTs) such as the Internet 'allow the orchestration of globalised production and marketing strategies' and of global financial trade. These insights reflect Marx's view that communication technologies like the Internet are simultaneously both medium and outcome of the capitalism's globalization tendency (Fuchs, 2008: 110).

The sixth Marxian concept is *ideology/ideology critique*. For Marx, ideology is inverted consciousness, consciousness that is manipulated so that it sees reality other than it is. Ideology is 'an inverted consciousness of the world' (MECW, 1975ff, vol. 3: 175). In *Capital*, Marx (1867) described ideology as the fetishism of commodities that makes social relations appear as characteristics of things and thereby creates 'misty realms' of consciousness (Marx, 1867: 165). Some examples of ideology critique in IS:

Scholz (2008) criticises of web 2.0 as marketing ideology. Fisher (2010a, 2010b), speaking of the 'new spirit of networks', argues that web 2.0 is shaped by a discourse that legitimates capitalism. Marcus Breen (2010) argues that digital determinism is an ideology that shapes the age of Internet capitalism. Dean applies the commodity fetishism theorem to 'Internet fetishism' (Dean, 2005, 2009). She further criticizes the assumption that online politics is inherently critical and constitutes relevant political activities as itself ideological, arguing that communicative capitalism advances communication without communicability (Dean, 2004, 2005, 2009) that frequently ideologically blinds users. Drawing on Žižek, Dean (2006) argues that politicization of the Internet is not automatically present and must be struggled for. Fuchs characterizes the notion of 'participatory web 2.0' (within capitalism) as ideology (Fuchs, 2011: ch. 7). In the spirit of Horkheimer and Adorno, Mathiesen (2004) describes the corporate Internet as a system of silent silencing.

The *aesthetic* is our seventh category. If, as Marx and Engels (1976) argued, the realm of culture – including that of the aesthetic – is one in which conflict and contradiction are both conceptualized and struggled over, it must necessarily be a realm of central importance to critical theory. In fact, the artistic sphere is one in which the capacities of new media technologies are explored, experimented with and put to work. In the abstract, the promises of these capacities are familiar: interactivity as a form of empowerment and the overcoming of alienation (we come to recognize our own contributions to the products of interactive processes); the virtual as a liberation from the physical constraints of the material world; artificial intelligence as the zenith of human creativity and, simultaneously, as a means of endowing the inanimate world with our own imperatives and putting it to work. It is in the discordance between the claims of autonomy made on behalf of art – the recognition of the potential that things might be otherwise – and the way in which these claims are in practice all too easily folded back into the logic of capital (and its own irrational autonomy), that Adorno (1997), drawing on Marx, located the critical potential of art. Within Marxian thought, different authors emphasize different aspects of this contradiction in regard to digital art. Some, such as Stallabrass (1996, 2003), emphasize the massive scope for banal commercialization of Internet aesthetics; others look to emancipatory and critical possibilities within online play and computer games (Andrejevic, 2006; Dyer-Witheford and De Peuter, 2009).

The eighth Marxian category is *class struggle*. 'The history of all hitherto existing society is the history of class struggle' (Marx and Engels, 1968: 35). In discussing Internet-supported struggles, Kahn and Kellner (2004) say that the Internet is the base and basis for globalization-from-below. In Marxist IS, the notion of class struggle is further reflected in conceptions of the Internet as a means for the 'circulation' of class struggles (Dyer-Witheford, 1999). This concept attracted considerable attention during the period of the so-called 'anti-globalization', when both the Zapatistas' use of the Internet to spread news of their insurrection, and the success of digital 'indie-media centres' in disseminating the model of summit activism after the Battle of Seattle, indicated the creation of what Cleaver (1998) termed 'an electronic fabric of struggle'. Other variants on this theme include the exploration of 'electronic civil disobedience' by the Critical Art Ensemble (CAE, 1996) or the program for 'hacking capitalism' advanced by Söderberg (2008). This analysis has been given an important new international dimension by Qiu's (2009) studies of the 'working class Internet society' – the uses of digital

networks by Chinese workers (often employed in electronic assembly factories) for both urban survival and political mobilization. At the extreme here is the theorization by Hardt and Negri (2000: 290–294) of 'immaterial labour', involved largely in communicational and computerized work, as the key constituent of a new class composition – 'the multitude' – challenging global capitalism.

The ninth Marxist category is the *commons*. Commons are resources that all in a specified community may use, but none can own. They contrast with commodities, exchanged for profit on the basis of privatized possession. The starting point for Marxist discussion of commons is the collective land of pre-capitalist agricultural communities, destroyed in Europe between the 16th and 18th centuries as landlords enclosed them in the process of Marx analysed as 'primitive accumulation' (Marx, 1867: 873–940). Opponents of corporate globalization have revived interest in the commons as a powerful notion for criticizing the privatization of natural and social resources: the concept leverages rethinking issues of collective ownership of resources ranging from oceans to the radio spectrum. Williams (1976: 70–73) pointed out the shared root of 'commons' and 'communications'. The notion of the enclosure of the commons has provided a potent metaphor for expanding corporate media power in general and, in particular, for the commodification of digital networks (Bettig, 1997; Dyer-Witheford, 2002; Kidd, 2003). As the early academic-hacker traditions of Internet usage succumbed to dot.coms and e-commerce, many analysts spoke of an enclosure of the electronic frontier (Lindenschmidt, 2004). As terrestrial enclosures had met with resistances, so some saw the cyber-spatial land grab facing a scattered but persistent insurrection that includes hacktivism, Free and Open Source Software (FOSS) and Peer-to-Peer (P2P) piracy (Dyer-Witheford, 2002). Marx has stressed the common character of knowledge with his concept of the 'General Intellect' (Marx, 1857/1858: 706). He pointed out that knowledge is 'brought about partly by the cooperation of men now living, but partly also by building on earlier work': its common character is due to 'communal labour, [that] however, simply involves the direct cooperation of individuals' (Marx, 1894: 199). The concept of the commons has also been applied to the context of knowledge on the Internet that is collectively produced and shared and appropriated by capital (see for example: Dyer-Witheford, 1999: 4, 219; Fuchs, 2010b, 2011; Hardt and Negri, 2009: 282; Žižek, 2010a).

The concepts of class struggle and the commons are in contemporary Marxism and in critical studies of the Internet, in particular, grounded in Autonomist Marxism. Žižek (2008: 354) criticizes this perspective as celebrating the informational revolution as 'the unique chance for overcoming capitalism' and thereby ignoring the rise of a new frictionless soft capitalism that, enabled by IT, makes use of a rhetoric consisting of ideals such as participation, self-organization and cooperation – but without realizing them. Žižek agrees with Hardt and Negri (2009) that the exploitation of the commons of society (such as knowledge on the Internet, education and culture) justifies 'the resuscitation of the notion of communism' at the political level as a form of resistance (Žižek, 2008: 429).

The *public sphere* is our 10th category. Marx imagined alternatives to the bourgeois state that serve class interests when he described the Paris Commune as a specific kind of public sphere, first of all as it superseded class rule (Marx, 1875: 274). Habermas's original concept of the public sphere is grounded in this Marxian understanding (Habermas, 1991: 122–129). A number of authors have discussed how to apply the

notion of the public sphere to the Internet and thereby have also taken into account Habermas's Marxist grounding by describing how the political economy of capitalism can colonize and thereby limit the potentials of the Internet to act as a tool that advances the transformation towards a public sphere (e.g. Dahlberg, 2004; Dahlgren, 2005; Paparcharissi, 2002; Sparks, 2001). However, many authors have ignored Marx's concept of the public sphere as a communism that transcends the private control of the means of production and the acknowledgement of this dimension by Habermas. Taking both Marx's and young Habermas's concepts of the public sphere seriously must mean for IS to discuss what a communist Internet is all about (Fuchs, 2011).

This brings us to the 11th Marxian concept considered here, *communism*. What distinguishes Marxist interest in digital commons from liberal and reformist versions of the same theme is the insistence that communal ownership of the means of production must supersede capitalism. For Marx and Engels, communism denotes a society that strengthens common cooperative production and common ownership of the means of production, and enriches the individual sphere of activities and thereby individuality. The new crises of capitalism have brought about an interest in the idea of communism (see Žižek and Douzinas, 2010). Marx spoke of 'an association of free men, working with the means of production held in common, and expending their many different forms of labour-power in full self-awareness as one single social labour force' (Marx, 1867: 171). Communism is 'a society in which the full and free development of every individual forms the ruling principle' (Marx, 1867: 739). In IS, scholars have for example spoken about the goal of a communist Internet in a communist society (Fuchs, 2011), 21st century communism (Dyer-Witheford, 1999: 4), cybernetic communism (Barbrook, 2007), dot.communism (Moglen, 2003) or a public-service Net (Patelis, 2000: 99). We can very briefly indicate three potentials of the Internet for such a new form of communism. Firstly, productivity increases from computerization could be translated, not into profits, but into collective resources – and not just of goods but, as importantly, of time, allowing collective participation in decision making. Secondly, 'open source' circulation of knowledge and invention would be an important element of new forms of cooperative production. Thirdly, digital networks would be part of the architecture of an infrastructure of distributed democratic planning (Dyer-Witheford, 2011). There are many other digital possibilities for a society of free cooperation; taking Marx seriously should for IS mean discussing what a communist Internet is all about (Fuchs, 2011). The question that arises is if struggles against commodification can constitute a movement for a new communism (Fuchs, 2011: ch. 9)/commonism (Dyer-Witheford, 2010) and if there is a new communist horizon (Dean, 2012).

These 11 concepts are some of the most frequently invoked Marxian notions in IS. Others could be added and the discussion extended, but the limited space of this article does not allow for more extensive discussion. The examples given are, however, suggestive of the importance of Marxian theory for critical analysis of the Internet.

Conclusion

This paper has attempted to show the importance of Marx for Critical IS. Marxian concepts, whether implicit or explicitly acknowledged, lie at the core of many of the normative claims about the Internet. Thus, a number of critical media/technology studies and

information science scholars stress the importance of Marx for studying communication (see, for example, Dyer-Witheford, 1999; Fuchs, 2011). Andrew Feenberg has stressed that the critical theory of technology 'originates with Marx' (Feenberg, 2002: vii) and that Marx provided the first critical theory of technology (Feenberg, 2002: 47). McChesney has argued that Marx is of fundamental importance for communication science because he provided intellectual tools that allow:

1. the critique of capital accumulation in the culture industry;
2. the critique of commodity fetishism;
3. the critique of ideologies that legitimate domination (McChesney, 2007: 53–55);
4. furthermore, Marx's own journalistic practice would be a model for critical, independent quality journalism (McChesney, 2007: 55–57).

Herman (1998) has stressed that the following elements of Marx's analysis are important for an inquiry of contemporary capitalism and communication:

1. the profit and accumulation drive;
2. the role of technological change;
3. the creation of a reserve army;
4. globalization;
5. instability and crises;
6. the control of the state by dominating classes.

Finally, in a special issue of the *Journal of Media Economics* on the topic of 'Political Economy of Communication', Sussman (1999: 86) has argued that Critical Communication Studies is based on Marxian thinking, noting that Marx was, 'one of the first to recognize modern communications and transportation as pillars of the corporate industrial infrastructure'. More recently, Stahl (2008: 10, 32) has argued that Marx is the root of the critical intention of Critical Information Systems Research and critical studies in general.

To this, we note the fact that it is often the commercial sector that mobilizes – albeit unwittingly – the very Marxian promise that has been the object of disdain in some academic quarters: that of shared control over the means of production and the overcoming of alienation. The marketers have picked up on the critique of mass society discarded by Cultural Studies theorists, conceding the alienating character of 'top-down' forms of media production and promising to overcome the three forms of estrangement targeted by Marx (from ourselves, others and nature) via the promise of networked, interactive, media; the media is no longer just the message – it is the *answer*. The result is a depoliticization and thus a dismantling of the promise of emancipation. Mosco stresses that Marxian Political Economy decentres the media by 'placing in the foreground the analysis of capitalism, including the development of the forces and relations of production, commodification and the production of surplus value, social class divisions and struggles, contradictions and oppositional movements' (Mosco, 2009: 94).

If IS is a 'highly interdisciplinary […] field in its own right' (Ess, 2011: 12), then Marxist IS can be characterized as an emerging subfield of IS, which focuses on the analysis of dominative and exploitative structures and practices on the Internet, Internet-based struggles against domination, and seeks to find ways of using the Internet for liberating

humans from oppression, inequality and exploitation. We have argued in this paper that in the contemporary situation of capitalist crisis it is specifically important that Critical IS focus on the analysis of the role of the Internet in capitalism and draw upon the Marxian roots of all critical studies. Thus far, only some scholars in Critical IS explicitly acknowledge the importance of Marxian analysis, while others only implicitly refer to Marx. It is now time to actively remember that Marx is the founding figure of Critical Media and Information Studies and Critical IS (Fuchs, 2010a, 2011) and that Marxian analyses are crucial for understanding the contemporary role of the Internet and the media in society.

Funding

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