tripleC 10(2): 313-333, 2012
ISSN 1726-670X
http://www.triple-c.at

Digital Marx: Toward a Political Economy of Distributed Media

Andreas Wittel

Nottingham Trent University, School of Arts and Humanities, Nottingham, United Kingdom,
andreas.wittel@gmail.com,
http://www.ntu.ac.uk/apps/Profiles/70220-2-2/Dr_Andreas_Wittel.aspx

Abstract: *This is the claim: In the age of mass media the political economy of media has engaged with Marxist concepts in a rather limited way. In the age of digital media Marxist theory could and should be applied in a much broader sense to this field of research. The article will provide a rationale for this claim with a two step approach. The first step is to produce evidence for the claim that political economy of mass media engaged with Marxist theory in a rather limited way. It is also to explain the logic behind this limited engagement. The second step – which really is the core objective of this article – is an exploration of key concepts of Marx's political economy - such as labour, value, property and struggle - and a brief outline of their relevance for a critical analysis of digital media. These concepts are particularly relevant for a deeper understanding of phenomena such as non-market production, peer production, and the digital commons, and for interventions in debates on free culture, intellectual property, and free labour.*

Keywords: *Marx, labour, value, property, struggle, political economy of media, digital, distributed media, mass media, internet, network*

1. Introduction

This is the claim: In the age of *mass media* the political economy of media has engaged with Marxist concepts in a rather limited way. In the age of *digital media* Marxist theory could and should be applied in a much broader sense to this field of research. For Marxist theorists this development is to be applauded, as it allows a broader inclusion and appropriation of his concepts. The article will provide a rationale for this claim with a two step approach.

The first step is to produce evidence for the claim that political economy of mass media engaged with Marxist theory in a rather limited way. It is also to explain the logic behind this limited engagement and to explain why digital media – or better: digital things – open up new and promising possibilities to incorporate a broader range of central Marxist concepts for an analysis of both, digital media (specifically) and (more generally) capitalism in the information age.

The second step – which really is the core objective of this article – is an exploration of key concepts of Marx's political economy – such as *labour, value, property and struggle* – and a brief outline of their relevance for a critical analysis of digital media or digital things. These key concepts are particularly relevant for a deeper understanding of phenomena such as non-market production, peer production, and the digital commons, and for interventions in debates on free culture, intellectual property, and free labour.

Part of this article is a critical inspection of the *free labour* concept, which was highly productive for an illumination of new developments in the social web but which suffers from a lack of analytical rigour and conflates a number of rather different practices. One of the key challenges in digital capitalism is the need to rethink labour for those human activities that blossom outside wage-based relations and other forms of commodified labour. In order to take the debate on free labour forward, I want to argue that we need to discuss labour. In order to think about labour we need to think about property, value and the value theory of labour.

Many of the conclusions I draw on in this article can only be achieved through struggle. A very brief remark on struggle points towards the relationship between digital media and social movements. In the digital age the political economy of media can occupy new territory with an inspection of direct action and its various forms of mediation.

2. The Political Economy of Mass Media

The political economy of media has been constituted as an academic field in the age of *mass media*, which are characterised by linear forms and one-way flows of communication, where content is being distributed from a small number of producers to a large number of recipients.

Outlining the key issues, questions, debates and findings of an academic field in a few paragraphs is always a difficult undertaking that leads to oversimplifications, questionable generalisations, and the privileging of a coherent narrative at the expense of a more nuanced perspective. This is also true for the field of political economy of media and communication. It is quite surprising however that there does exist a rather broad consensus of what this field is about. Comparing a number of introductions to this field (Mosco 1996; Devereux 2003; McQuail 2005; Durham and Kellner 2006; Laughey 2009; Burton 2010) it becomes rather obvious that there is not much disagreement about key issues, questions and findings that have been produced in the political economy of media and communication.

It starts with the observation that media institutions have increasingly become privatised and turned into businesses. This is seen as problematic as media industries are seen as not just any industry. To understand the unusual character of the media industries one has to examine the dual nature of the content being produced, which is simultaneously a commodity and a public good. It is a private good – a commodity – as media industries are using their products for the accumulation of profit. At the same time this content is a public good as it constitutes to some degree the public sphere. So on the one hand media institutions have a social, cultural, and political function, on the other hand they are driven by economic interests. It is this dual nature of media content which makes the assumption that media are an independent force, naturally safeguarding democracy and the public interest rather questionable. Equally doubtful is the assumption that mass media just mirror public opinion.

The political economy of media is based on the premise that media are powerful, that they are able to influence public opinion and shape public discourse. Therefore it is crucial to focus on the production of media content within a wider political and economic context. It is this focus on materiality and the political, economical, and technological conditions in which media content is being produced that distinguishes the political economy of media from other academic fields such as the more affirmative strands within cultural studies and audience studies, which generally locate power and control not with media institutions but with an active audience as the true producer of meaning.[1] The political economy of media is as much social analysis as media and communication analysis.

This field is mainly concerned with the following issues: Firstly with an understanding of the media market. How do media companies produce income and generate profits? Secondly with an inspection of questions of ownership of media organisations (public, commercial, and private non-profit organisations) and an analysis of the implications of ownership structures with respect to media products (obviously this is especially relevant for the production of news). Thirdly the field is concerned with changing dynamics of the media sector, in particular with developments such as internationalisation of media industries, concentration and conglomeration of media organisations, and diversification of media products. This leads into debates on cultural imperialism and media imperialism. The fourth issue is about media regulation, media policy, and media governance, originally on a national level but increasingly with a global perspective. It is important to note that these areas of inquiry are closely connected, in fact they overlap considerably.

In order to introduce the key claims of political economy of media in the shortest possible way, I will refer to a summary box in Denis McQuail (2005,100). According to him, these are the core findings:

- Economic control and logic are determinant
- Media structure tends towards concentration
- Global integration of media develops
- Contents and audiences are commodified
- Diversity decreases
- Opposition and alternative voices are marginalised
- Public interest in communication is subordinate to private interests

Raymond Williams who is usually not portrayed as someone who is part of the inner circle of political economy of media was in fact among the first to develop such an approach. In an essay on the growth of the newspaper industry in England he starts with the observation that “there is still a quite

[1] For an analysis of the tensions between cultural studies and political economy see Kellner 1995 and Wittel 2004, for an analysis of the disagreements between political economy of media and active audience studies see Schiller 1989, 135-157).

widespread failure to co-ordinate the history of the press with the economic and social history within which it must necessarily be interpreted" (Williams 1961, 194). He sets out to develop such a perspective, studying empirically a period of 170 years. His findings are highly sceptical:

> "These figures do not support the idea of a steady if slow development of a better press. The market is being steadily specialised, in direct relation to advertising income, and the popular magazine for all kinds of reader is being steadily driven This does not even begin to look like the developing press of an educated democracy. Instead it looks like an increasingly organised market in communications, with the 'masses' formula as the dominant social principle and with the varied functions of the press increasingly limited to finding a 'selling point'." (Williams 1961, 234)

If we juxtapose this passage with the key claims in McQuail's summary box it becomes clear that Williams anticipated many of the themes and results that will be debated within this field over the next five decades. The quoted summary in his study is like a microcosm of the field.

3. Marx and the Political Economy of Mass Media

The theoretical roots of political economy of media – at least their critical tradition (which is all I am concerned with) – are usually located in Marxism. After all and as the name already indicates, this field within media studies explores communication from a political economy perspective. So how much engagement with Marx do we get in this academic field? The short answer: there is some engagement but it is fairly limited. In order to support this claim with some evidence I will check a number of texts that are generally considered to be important contributions.[2]

The first and rather surprising insight is that a considerable number of books (Herman and Chomsky 1988; Schiller 1989; Curran 1991; Herman and McChesney 1997; Curran and Seaton 1997; Grossberg et al 1998; Curran 2000, Nicols and McChesney 2006) have either no reference at all or less than a handful of references to Marx or Marxism. In the latter case these references function usually as signposts (such as to distinguish Marxists from liberal traditions of political economy). They do not engage with Marxist theory in a more profound manner.

Nevertheless they are all rooted in Marxist theory, or to be more precise, in one particular part of Marxist theory. They are all directly linked to the base and superstructure model. According to Marx human society consists of two parts, a base and a superstructure. The material base consists of the forces and relations of production, the superstructure refers to the non-material realm, to culture, religion, ideas, values and norms. The relationship between base and superstructure is reciprocal, however in the last instance the base determines the superstructure. This model has been developed in various writings of Marx and Engels, perhaps most famously in the preface to *A Contribution to the Critique of Political Economy* (Marx 1977) and in the *German Ideology* (Marx and Engels 1974).

> "The mode of production of material life conditions the general process of social, political, and intellectual life. It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness." (Marx 1977)

> "The ideas of the ruling class are in every epoch the ruling ideas, i.e. the class which is the ruling material force of society, is at the same time its ruling intellectual force. The class which has the means of material production at its disposal, has control at the same time over the means of mental production, so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it. The ruling ideas are nothing more than the ideal expression of the dominant material relationships, the dominant material relationships grasped as ideas; hence of the relationships which make the one class the ruling one, therefore, the ideas of its dominance […] Insofar, therefore, as they rule as a class and determine the

[2] To keep this analysis simple, I will ignore here German Marxist media theory (Brecht, Krakauer, Benjamin, Adorno, Enzensberger) at the beginning of the mass media age, a line of thought which – perhaps wrongly – is usually not included in the field of political economy of media. The texts I have chosen to consider are certainly not extensive, they are also not representative in any way, but they do provide a solid indication on the relation between this field and Marxist theory.

> extent and compass of an epoch, it is self-evident that they do this in its whole range, hence among other things rule also as thinkers, as producers of ideas, and regulate the production and distribution of the ideas of their age: thus their ideas are the ruling ideas of the epoch." (Marx and Engels 1974, 64f.).

The texts mentioned above directly or indirectly apply the base and superstructure model to the media industry, which like no other industrial sector contributes to the production of the superstructure. However they apply this model in various ways and there is considerable disagreement about what some see as a deterministic model with a linear, non-dialectical, and reductionist perspective.

Durham and Kellner observe that "the focus in US-based political economy of communication tends to emphasize the economic side of the equation with focus on ownership, corporatization, and consumption, while in Britain there has been a spotlighting of the political dimension, with emphasis on public sector broadcasting, the importance of state-supported and regulated communication, and the politics of broadcasting." (Durham and Kellner 2006, 197) I would take this observation one step further: The US-based work on political economy of media is generally more in line with the base and superstructure model, whereas the research in Britain is slightly more critical of a material or economic reductionism. I would also suggest that these different positions are related to the media landscape in both countries, a free-market media landscape in the US and Britain still relying on a strong representation of public-sector broadcasting. It is no coincidence that the propaganda model (Herman and Chomsky 1988) has been developed in the US. Neither is it surprising that it is a US study that diagnoses a complete and systematic failure of critical journalism on the reporting of the Iraq war, and claims that the US media bring about a "destruction of democracy" that "a highly concentrated profit-driven media system...makes it rational to gut journalism and irrational to provide the content a free society so desperately requires." (Nichols and McChesney 2005, ix) Similar claims could not be found in British research with its rather critical position towards the base and superstructure model. Curran for example observes that "a sea change has occurred in the field", which is mostly about the "repudiation of the totalising explanatory frameworks of Marxism" (Curran 1990, 157f.).

So far I have only referred to those texts with either no reference at all to Marxist theory or with only few references which then usually function like signposts. There are however texts that engage with Marx and in particular with his base and superstructure model in a more profound way. Mosco (1996) who provides perhaps the most detailed analysis of the literature in this field starts his books with an introduction to Marxist political economy. Murdock (1982) focuses in particular on the base and superstructure model and compares it with a more praxis-oriented perspective. Williams (1958, 265-284) engages in great detail with this model and argues that it is more complex than usually acknowledged (e.g. that this relation is reciprocal rather than a one way street). "The basic question, as it has normally been put, is whether the economic element is in fact determining. I have followed the controversies on this, but it seems to me that it is, ultimately, an unanswerable question." (Williams 1958, 280). Like Williams, Nicholas Garnham (1990) also counters charges of economic reductionism. He insists that Marx's model offers an adequate foundation for an understanding of the political economy of mass media. He moves away from a deterministic view of the relation between base and superstructure towards a model that is more anchored in reciprocity and a dialectic relation.

Let us conclude: Apart from some rare exceptions – most notably Dallas Smythe who will be discussed later – political economy of *mass media* incorporates Marxist theory in a rather limited way. This academic field refers predominantly to Marx's concept of base and superstructure (either directly or indirectly) to make claims about the relationship between ownership of means of production (and concentration of ownership, media conglomerates etc.) and questions of media content, ideology, manipulation, power and democracy.

To avoid any misunderstandings: This is not meant as a critique of political economists of *mass* media. I do not see this limited appropriation of Marxist concepts as a failure of this academic field. My point is very different. I want to argue that this limited appropriation made complete sense in the age of mass media. It has a logic to it that lies very much in mass media technologies. This will be discussed in more detail in the following section. It should also be noted, very much in line with my argument, that over the last decade, which marks the transition from mass media to distributed media, Marx has been rediscovered by political economists. Even more so, he has been

rediscovered in ways that are not just rehearsals of the base and superstructure debate.[3]

4. Digital Technologies

What is the logic behind this rather restricted appropriation of Marxist theory? One might point out – referring again to the base and superstructure argument – that Marx was obviously more interested in the former and has thus neglected an analysis of the latter; that Marx did not have a lot to say about media and communication. No doubt this is a persuasive argument. However this would not explain why in the age of digital media, so my claim, Marxist concepts could and should be applied in a much broader sense by political economists of communication.

We will probably get closer to an answer if we turn our attention to *media technologies*. In the age of mass media these technologies – the means of production – were expensive. Most people could not afford the ownership of all those assets necessary for print media or broadcast media. As a consequence there were only a limited number of media organisations which produced and disseminated media content to a huge number of consumers/recipients. Thus *mass media* are characterised by a small number of content producers and a large audience. For societies that perceive themselves as liberal democracies this is a rather problematic starting point. In fact no other issue about mass media is as problematic as the ownership of means of production and processes of media concentration, the ownership of media technologies and media organisations in the hands of increasingly fewer 'media moguls'. The limited appropriation of Marxist theory in the age of mass media results from a very specific *historic reality*, from historically unique concerns that were generated by *mass media technologies*.

Digital technologies have brought about a fundamentally different media landscape, where mass media are not the only show in town any more. They have been given company by *distributed media* and increasingly they seem to be replaced by this new kid on the block. Distributed media operate with a very different organisational logic. Whereas mass media are hierarchical, linear, with a control centre and one-way flow of media content from few producers to many recipients, distributed media are networked, non-linear, with multi-directional and reciprocal flows of media content from many producers to many consumers.

The terms *distributed* media and *digital* media are similar but not identical. I use the term *distributed media* to put an emphasis on the *social organisation* of media (even though this term also refers to Internet technologies), while the term *digital media* is used to refer to *technology only.* It is important to stress however that the social can never be fully separated from the technological. Every medium is simultaneously technological and social. Technological structures and relations between human beings are interlocked and mutually constitutive.

The logic of distributed media is profoundly shaped by the qualities and capabilities of digital technologies, which are superior to mass media technologies (say the printing press) in that they are much cheaper and much more efficient in a number of ways: (1) They can re-mediate older media forms such as text, sound, image and moving images as digital code; (2) they can integrate communication and information, or communication media (the letter, the telephone) with mass media (radio, television, newspaper); (3) digital objects can endlessly be reproduced at minimum costs; (4) they don't carry any weight, thus they can be distributed at the speed of light.

These phenomenological qualities of digital technologies, which rely largely on a distinction between bits and atoms, I want to argue, have profound implications for the social. Firstly the number of media producers increases dramatically in the digital age. Now everybody with access to a mobile phone or a laptop and access to a network is a potential producer of media content. Secondly digital technologies enable new social forms of media production and media distribution, for example large scale 'sharing' of media content[4] and large scale forms of collaboration and peer production such as open source code. Thirdly, as the number of media producers increases media themselves are becoming ubiquitous in that all aspects of the social world and our lives become mediated, from the global and public to the most intimate aspects of our existence (Livingstone 2009). Fourthly and perhaps most importantly digital technologies are not just media technologies. They are built into all productive processes (Castells 1996). The digital economy now is not just the

[3] Perhaps the first thorough appropriation of Marx's concepts for *distributed* media has been produced by Nick Dyer-Witheford (1999). He analyses how the information age, "far from transcending the historic conflict between capital and its laboring subjects constitutes the latest battleground in their encounter" (Dyer-Witheford 1999, 2). Since then other books have emerged with an explicit Marxist approach to theorise the internet, e.g. Wayne 2003; Huws and Leys 2003; Stallabrass 2003; Wark 2004; Terranova 2004; Artz, Macek and Cloud 2006; Jhally 2006; Fuchs 2008; Mosco, McKercher, and Huws 2010; Kleiner 2010; Fuchs 2011, Fuchs et al. 2012).

[4] For a critical analysis of sharing in the digital age see Wittel 2011.

ITC economy any more, it is simply the economy full stop. As a consequence of this process the digital does not just refer to the realm of media, but to new forms of production based on ICTs, and possibly (depending on the success of future struggles) to a new mode of production, to a 'commons-based peer production' (Benkler 2006). For this reason a political economy of digital media really is a political economy of digital things. It is this opening up of media from few professionals to many amateurs and from the state and markets to non-markets, and the blurring of boundaries between media industries and other industrial sectors, that suggest the possibility of a broader engagement with Marxist theory. In the digital age indeed all aspects of Marx's political economy become relevant for critical media theory.

A quick comment on *technological determinism*. This phenomenological analysis of digital things and their implications is not, in my view, an example of technological determinism. I do not want to suggest that all explanatory power lies with technologies and people are mere bystanders reacting to them. However I am also not very sympathetic to arguments on the opposite end that position all aspects of agency with people. Social determinism is as dangerous as technological determinism. My argument, which is broadly in line with Marx's thinking, is that technologies open up new possibilities for social production and social organisation. They do not determine in any way the future of capitalism, which of course will solely be shaped by the struggles of the oppressed.

It is perhaps due to a rather strong aversion against technological determinism within the field of political economy of mass media that commentators have been a bit slow to acknowledge the profound difference between mass media and distributed media. Different responses and strategies have been employed to demonstrate that the new – meaning the so-called digital revolution – is highly overvalued. The first type of response (e.g. Murdock 2004) rejects any re-evaluation and argues that the digital age is not significantly different from the age of mass media and that historical continuities are more important than differences. Rather than falling for 'digital possibilities' political economists should study 'market realities'. The information society does not really exist, it is only 'presumed'. (Murdock and Golding 2001). The second type of response, the sitting-on-the fence approach (e.g. Curran and Seaton 2003, 235-293), is more cautious. It consists of a hesitation to take position and to make claims about changes with respect to digital technologies. A third type of response (e.g. Mosco 2004) consists of the deconstruction of this discourse, in particular of claims made by Internet-philiacs.

Indeed it would be naïve to ignore continuities. Equally dangerous however is a position that argues for business as usual. Let us explain this with an example. The issue of ownership of means of production, which largely dominated the discourse of political economy of mass media, will not lose any relevance in the age of distributed media. On the contrary, it will become an even more important topic as new concerns are emerging. However this issue needs to be re-conceptualised in two significant ways. *Firstly*: In the age of mass media the issue of ownership of means of production was only relevant with respect to media content. In the age of distributed media the issue of ownership of means of production is relevant with respect to media content, but also with respect to connectivity. This is not just about ideology and the manipulation of messages any more (base and superstructure), but also about the ownership of infrastructures, of networks and platforms that allow users to socialise, communicate, and collaborate. This is not just about meaning and representation, it is about the control of people's online interactions, it is ultimately about privileging certain forms of sociality and subjectivity. The *second* reason for a re-conceptualisation lies in the notion of 'means of production'. In the age of distributed media the means of production have become more democratic. Users with access to a computer and access to the Internet (which is more than one billion people) and some basic computer skills have the means necessary to produce media content. What they don not have however are the *means of distribution* and the *means of online storage* of media content. The means of distribution and the means of storage lie in the hands of few media conglomerates. They control the flows of information. They belong to what Wark describes as the vectoral class. "The vectoral class is driving the world to the brink of disaster, but it also opens up the world to the resources for overcoming its own destructive tendencies." (Wark 2004, 025) The analysis of this class struggle between capital and labouring subjects about the future framing of the Internet is also one of the key objectives of Dyer-Witheford (1999). To summarise this paragraph: With respect to means of production we can see important historical continuities but also some remarkable shifts.

Dmytri Kleiner starts his book with a bang: "What is possible in the information age is in direct conflict with what is permissible […] The non-hierarchical relations made possible by a peer network such as the internet are contradictory with capitalism's need for enclosure and control. It is a battle to the death; either the Internet as we know it must go, or capitalism as we know it must

go." (Kleiner 2010, 7)

Of course this is a mildly exaggerated view. There is not just war going on, we can also see the development of new forms of co-operation and new models and arrangements between both sides. Still, I like this quote a lot as it is a pointed and condensed outline of the responsibility of political economy in the age of digital media and distributed networks. There is a technology that opens up new productive forces; there is a political-economic system with established relations of production. There is struggle between those who want to conserve existing relations of production and those who attempt to overcome them. And there is an indication of how to create a better world. Could the Internet in its more uncontrolled form teach us how to think about society at large?

We are already in the middle of Marx's political economy. In the following parts I want to discuss how some core concepts of his political economy become relevant for an analysis of media in the digital age. I will focus on four central terms, on *labour, value, property, and struggle*. Among these four concepts the notion of labour will be explored in more detail.

5. Labour

Throughout the last century labour has been analysed in the western hemisphere as wage labour only. Apart from the writings of very few Marxist theorists such as André Gorz (1999), alternatives to wage labour have hardly entered public discourse. It was a common perception that there was just no alternative to wage labour. Obviously this theoretical orientation was a reflection of an economic reality characterised largely by wage labour as the dominant form of production. This is how media production was organised in the age of mass media. No matter whether media institutions were public institutions or private companies, these institutions had employees who have received a wage in return for their work.

The contemporary media ecosystem looks profoundly different. Media content now is not only produced by employees working in and for companies, it is also created by the free labour of those who engage in peer production (the dissemination of content) and 'commons-based peer production', a term coined by Yochai Benkler (2002) to describe a new model of socio-economic production, in which large numbers of people work towards common goals without financial compensation for contributors. Media content now is not just produced for markets and paying audiences, there is also a rather significant non-market dimension to media production. This is a new situation. In fact the media and creative industries are at the moment the only industrial sector that is confronted with competition from free labour and non-market production.

The emergence of non-market production started in the 1980s with the open-source movement but has accelerated on an astonishing scale during the last decade with the social web. It has spread from the peer production of software and code to text, sound, images, and moving images. These digital commons are software commons, news commons, information commons, knowledge commons, education commons, art commons, and cultural commons.

Undeniably the digital whirlwind has created havoc in the creative industries. Newspaper journalism is in decline and struggling to find new business models. The title of a collection of essays on the collapse of journalism in the United States – "Will the last reporter please turn out the lights" (McChesney and Pickard 2011) – is an indication of the severity of this development. The music, film and publishing industries are also hit hard and are turning increasingly to legal enforcements of copyright infringement and to political lobbying for tighter regulations of the Internet (e.g. ACTA, SOPA, PIPA).

Many of the implications of this new media ecosystem however are not clear at all. Will this co-existence of corporate labour and free labour in the digital commons remain exclusively in the media industries and creative industries or will it spread to other industrial sectors as well? What are the relations between the media and creative industries and the digital commons? Are we in the middle of an 'immaterial civil war' (Pasquinelli 2007)? Or is such a perspective too one-dimensional as we can also see a number of collaborations between both sides, for example the corporate funding of open source software production? What are the long-term implications of this for the labour market in the media industries? It is likely that the rationalisation of media and cultural production due to digital technologies will lead to a shrinking of the market. But if it does, how dramatically will it shrink? Finally what does this mean for the rate of productivity in the media industries? Does capital profit from an exploitation of free labour or will the competition from the new kid on the block lead to a decline of productivity in the industry?

In order to better understand this new media ecology we need to focus on the concept of free labour. The first thing to note is that, while this term has recently been employed by Marxist

theorists, Marx himself does not use the term free labour. Marx, partly in the tradition of classical political economy in the 18th and 19th century, partly developing a critique of this tradition, distinguishes between productive and unproductive labour. These are not neutral terms, they depend on class positions and they depend on specific types of society (feudal, capitalist etc.) and their specific relations of production. In capitalism productive labour is labour that is productive for capital. It produces commodities, exchange value, and profit (surplus value). Unproductive labour does not produce surplus value. To give an example: A person employed in a private household to perform tasks such as cooking and cleaning does not produce a commodity. While his or her labour-power is sold as a commodity, the product of this labour-power is not. Therefore this is unproductive labour. A cook working in as an employee in a restaurant however produces commodities, he or she produces meals that are sold to customers. Therefore this is productive labour. So productive and unproductive labour are not distinguished with respect to what people do (in both cases they cook), but with respect to their relation to capital and the commodity form. Applying the free labour of digital commoners to this concept it is obvious that according to Marx free labour is unproductive. Not very surprising this concept has received much criticism from Marxist feminists in the 1980s who argued that domestic labour, usually performed by women, would indeed create surplus value as this arrangement makes it possible to reduce wages even more for those who do not perform domestic labour. In my view this is a strong argument. Even more so it poses a real challenge to Marx's theory of surplus value.

Also relevant for the free labour concept is Marx distinction between labour and labour-process. Let us begin with labour:

> "Labour is, in the first place, a process in which both man and Nature participate, and in which man of his own accord starts, regulates, and controls the material re-actions between himself and Nature. He opposes himself to Nature as one of her own forces, setting in motion arms and legs, head and hands, the natural forces of his body, in order to appropriate Nature's productions in a form adapted to his own wants. By thus acting on the external world and changing it, he at the same time changes his own nature." (Capital Vol. 1, 177).

Labour is not merely an economic but a human activity. It is a universal category of human existence and it is independent of any specific economic or social forms. Labour is what keeps us alive and what makes us develop. This is a rather broad concept. Labour can be equated with action or with praxis. Labour is what we do.

In stark contrast to labour, his concept of labour-process refers to specific historic modes of production and to specific historic societies and economies. With this historical approach he wants to demonstrate that the labour-process, the specific organisation of work, is not inevitable. Existing labour-processes can always be overcome. Marx is particularly interested in the difference between a feudal and a capitalist labour-process. In capitalism the labour-process is based on wage-labour, on the fact that the worker sells his labour-power as a commodity to the capitalist. Comparing the feudal labour-process with the capitalist labour-process Marx highlights two things:

> "First, the labourer works under the control of the capitalist to whom his labour belongs; the capitalist taking good care that the work is done in a proper manner, and that the means of production are used with intelligence, so that there is no unnecessary waste of raw material, and no wear and tear of the implements beyond what is necessarily caused by the work. Secondly, the product is the property of the capitalist and not that of the labourer, its immediate producer. Suppose that a capitalist pays for a day's labour-power at its value; then the right to use that power for a day belongs to him, just as much as the right to use any other commodity, such as a horse that he has hired for the day […] The labour-process is a process between things that the capitalist has purchased, things that have become his property." (Capital Vol. 1, 184f.)

Here Marx has identified two forms of alienation that did not exist in feudalism or in any other mode of production before capitalism. The first form of alienation refers to the product of the worker's own work and the inability to use the product of this own work for his or her living. The second form of alienation refers to the inability to organise the process of work, which lies exclusively in the hands of the capitalist who owns the means of production. Let us apply again the concept of free labour to

Marx distinction between labour and labour-process. Free labour then is always labour in the general sense of Marx concept. However the term does not refer to a specific historical labour-process. In a strictly Marxist framework the concept of free labour would only make sense if it would become the dominant mode of production and supersede wage labour the same way that wage labour has superseded the labour of feudal serfs and pre-feudal slaves. We will revisit this issue in more detail.

The free labour debate is mostly initiated by autonomist Marxists close to the Italian operaismo school. It is connected to the writings of Maurizio Lazzarato and Michael Hart and Antonio Negri on immaterial labour, which is situated with the turn towards a Postfordist mode of production and its related processes such as the transformations in the organisation of work (the organisation of the labour process), the production of subjectivity and social relations in work environments, and bio-political capitalism where capital ultimately captures life. This means that immaterial labour, which is both intellectual labour and affective labour, involves a number of activities that would not be considered work in Fordist work environments.

> "It is not simply that intellectual labor has become subjected to the norms of capitalist production. What has happened is that a new 'mass intellectuality' has come into being, created out of a combination of the demands of capitalist production and the forms of 'self-valorization' that the struggle against work has produced." (Lazzarato 1998)

The concept of immaterial labour is inspired by a few pages in the *Grundrisse*, where Marx (1973) writes about wealth creation and the production of value which is increasingly independent of labour.

> "(T)he creation of wealth comes to depend less on labour time and on the amount of labour employed […] but depends rather on the general state of science and on the progress of technology […] Labour no longer appears so much to be included within the production process; rather the human being comes to relate more as watchman and regulator to the production process itself […] He steps to the side of the production process instead of being its chief actor. In this transformation, it is neither the direct human labour he himself performs, nor the time during which he works, but rather the appropriation of his own general productive power, his understanding of nature and his mastery over it by virtue of his presence as a social body – it is, in a word, the development of the social individual which appears as the great foundation-stone of production and of wealth." (Marx 1973, 704f.).

As Gorz has pointed out, Marx's language is a bit unstable and fluctuates between a number of terms. What comes to replace labour is variably 'the general intellect', 'the general state of science and technology', 'general social knowledge', 'the social individual', and the 'general powers of the human head' (Gorz 2010, 2). The core claim made by Marx is very clear however: At some stage in the development of capitalism knowledge, technology, and the general intellect firstly become somehow decoupled from labour and secondly replace labour as the source for the creation of value. It is not hard to see why these pages in the *Grundrisse* become so crucial for the concept of immaterial labour. However these observations in the *Grundrisse* sit uneasy with the Marx of *Capital Vol. 1,* who develops the labour theory of value and categorically insists that labour is the only source for the creation of exchange value.

Tiziana Terranova (2004) is perhaps the first theorist who thoroughly engaged with the concept of free labour. In an essay, which was first published in 2000, before the arrival of the social web, before Wikipedia and social media platforms, she conceptualises free labour as the "excessive activity that makes the Internet a thriving and hyperactive medium" (Terranova 2004, 73). This includes "the activity of building web sites, modifying software packages, reading and participating in mailing lists and building virtual spaces" (Terranova 2004, 74). Consistent with the operaismo discourse on immaterial labour, she situates the emergence of free labour with Postfordism. "Free labour is the moment where this knowledgeable consumption of culture is translated into excess productive activities that are pleasurably embraced and at the same time often shamefully exploited" (Terranova 2004, 78).

With this definition we have three features of free labour that are characteristic for most

commentators in this debate. Free labour is firstly unpaid labour. It is free in the sense of free beer; it is voluntarily given. Secondly it is free in the sense of freedom. It is more autonomous and less alienating than wage labour. It is not a factory but a playground. Thus it can be enjoyed. Thirdly it is exploited by capital.

This dialectic between autonomy and exploitation is reflected in most accounts of free labour, however with different interpretation of this tension. Terranova is careful to avoid strong judgements and speaks of a 'complex relation to labour' (Terranova 2004, 73). Mark Andrejevic has explored the notion of free labour in a number of studies on reality TV (Andrejevic 2008), YouTube (Andrejevic 2009) and Facebook (Andrejevic 2011). These are all commodified spaces and the core argument in each of these cases is a critique of accounts within media studies that celebrate participation and user generated content as an indication of a process of democratisation and an empowerment of users. He argues instead that the free labour invested in these commodified spaces is being exploited by capital. In his studies, the liberating, empowering and emancipatory potentials are clearly overshadowed by the negative dimensions of monetised communities. Matteo Pasquinelli (2008) goes one step further and critically engages with free labour and the commons. Obviously the commons is not captured or enclosed by capital, otherwise it would cease to be a commons. The various digital commons are not commodified spaces. Still Pasquinelli does not see any positive aspects about the digital commons. They are bad and dark spaces, as they are exploited by capital. This is a deeply asymmetrical relationship. Using Michel Serres' conceptual figure of the parasite and George Bataille's thoughts on excess, he writes about the 'bestiary of the commons', where capital behaves like vampires and sucks all the blood of the surplus energies of free labourers who seem to be too naïve to understand what is going on.

I have noted earlier that Dallas Smythe, one of the founding fathers of Canadian political economy of media, is one of the very few theorists in this field who does not merely engage with the base and superstructure concept but with other aspects of Marx's work. In fact he employs Marx's concept of labour-power. Smythe argues that media audiences are a commodity. They are made a commodity by media producers. The activity of watching television connects media audiences to advertisers. Thus media audiences perform labour. Even though Smythe did not use the term free labour he could be described as the founding father of the free labour debate. Like Andrejevic, Smythe studies media audiences in commodified environments. For Smythe this is a tragedy with three players: the two bad guys are media producers and advertisers; the victims are audiences. Media producers construct audiences. They also sell time to advertisers. Therefore they deliver audiences for advertisers. His argument why audiences perform labour is developed as follows: In modern capitalism there is no time left that it not work time. Capitalism makes "a mockery of free time and leisure" (Smythe 1977, 47). He explains how this observation relates to Marx's theory of labour power (labour power refers to the capacity to work).

> "Under capitalism your labor power becomes a personal possession. It seems that you can do what you want with it. If you work at a job where you are paid, you sell it. Away from the job, it seems that your work is something you do not sell. But there is a common misunderstanding at this point. At the job you are not paid for all the labor time you do sell (otherwise interest, profits, and management salaries could not be paid). And away from the job your labor time is sold (through the audience commodity), although you do not sell it. What is produced at the job where you are paid are commodities...What is produced by you away from the job is your labor power for tomorrow and for the next generation: ability to work and to live." (Smythe 1977, 48)

This is certainly an innovative argument and Smythe deserves much credit for what was in the 1970s a rather unusual approach to media audiences. For two reasons however his argument is rather problematic. Firstly it is totalising as all time in the life of humans is work for a capitalist system, sometimes paid ('at the job') and sometimes unpaid ('away from the job'). This means that all reproductive time is time spent for work ('24 hours a day'). This is a much bigger claim than the claim of audience labour. For Smythe every single activity in our life becomes work for the capitalist system. This is maximum alienation and there is no way out. The second problem with this perspective is that it is based on a misinterpretation of Marx's concept of labour. Marx's distinction between concrete and abstract labour, between labour in productive use and labour power (the capacity to work) refers only to wage-based labour. It does not make much sense to use the concept of labour power for reproductive activities. The concept of labour power makes only sense

in a context where labour power can be sold by the worker. This is precisely what distinguishes capitalism from other economic systems such as slavery or feudalism. Smythe's attempt to circumvent this problem by declaring that "away from the job your labor time is sold...although you do not sell it" is in my view an 'interpretation' of Marxist analysis that really goes against the fundamental ideas of Marx's theory of labour power.

David Hesmondhalgh has recently developed a critique of the free labour concept. He points out two things. Firstly he critically interrogates "the frequent pairing of the term with the concept of exploitation" which he sees as both, "unconvincing and rather incoherent" (Hesmondhalgh 2010, 276). Sometimes exploitation would refer to alienation, sometimes to ideology and manipulation, and in other cases to the fact that free labour is being captured and used by capital. However none of these things would really be about exploitation. I fully agree with this critique and would only add that according to the Marx of *Capital vol. 1* the exploitation of free labour is impossible. Exploitation refers to the surplus value that capitalists make from wage labour. Surplus value is the value created by workers in excess of their own labour-cost. It is the basis for profit and capital accumulation. For Marx of *Capital vol. 1* the idea that surplus value can be created outside the wage-relationship is nonsensical.

Secondly, Hesmondhalgh asks what political demands might flow from critiques of free labour. He points out that unpaid labour has always existed, using examples such as domestic labour and voluntary community labour (coaching football), and insists on the importance of prioritisation. Under what conditions, he asks, might we object to such unpaid labour, and on what grounds? Which forms of labour are particularly unjust? He also argues that throughout history most cultural production has been unpaid. Finally he points to the fact that those who undertake unpaid digital labour might gain other rewards, such as job satisfaction and recognition by peers.

It is indeed very important to question the claim that the emergence of free labour is somehow linked to Postfordism and to point out that unpaid labour has existed throughout the history of capitalism. It has existed as subsistence work (or domestic labour) and in the form of non-monetised activities, for example voluntary community work or mutual babysitting in the neighbourhood. However Hesmondhalgh is conflating the labour of an unpaid community football coach with the labour of users of profit-driven social media platforms. The former unpaid labour is labour in a non-commercial and thus non-profit environment. The latter is labour in a commercial environment that sells virtual or immaterial spaces to advertisers. This is an important distinction. Interestingly this is a distinction which remains rather nebulous within the free labour debate. Let us go back to the three authors I discussed earlier. For Terranova free labour refers to "the activity of building web sites, modifying software packages, reading and participating in mailing lists and building virtual spaces"; she does not make a distinction between the commercial and the non-commercial, between capital and commons (Terranova 2004, 74). Andrejevic writes only about free labour with respect to advertising spaces and profit-making. Pasquinelli writes only about free-labour and the exploitation of free labour with respect to the commons, with respect to digital sites that are non-profit sites.

All this is rather confusing. It is as confusing as Smythe's contradictory position: On the one hand he claims that exploitation happens 24 hours a day, that there is no time in our life that is not being exploited by capital, on the other hand he refers merely to those moments and spaces outside work that are advertised spaces and moments. All this is not just confusing, it is highly unsatisfactory with respect to exploitation, profit, and surplus-value, in short: with respect to the question of value. Clearly value can come from both, unpaid and paid labour. What is not clear at all however is the origin of exchange value and thus surplus value. Even Marx is sending different messages. In *Capital vol. 1* surplus value can only derive from wage labour, in *Grundrisse* Marx suggests that technology and the general intellect can also be exploited by capital. I find it difficult too to come up with a clear position how surplus value is being generated. In the next sub-chapter on value I will argue that what is valuable and why certain things are valuable is always a subjective category. Therefore it is impossible to decide where objectified value (exchange value, surplus value) really comes from.

Hesmondhalgh also addresses the question of political demands that could emerge in an age where wage labour co-exists with free labour. Again this is a very important point. However I would formulate this task in a different way. Let us go back to Marx's distinction between capitalist wage-based labour and his general take on labour (meaning: independent of particular historic economic modes of production) as a "process in which both man and Nature participate", as something that transforms both the environment and human beings, as an activity that is not just an economic but a human activity. Labour in this sense can broadly be equated with practice or activity. It seems

that this is a very contemporary definition of labour. Marx's general definition of labour corresponds very much with the points made by Lazzarato, Hardt and Negri, and other scholars associated with the operaismo school. All we need to do is to exchange the term practice for life. In bio-political capitalism work is life, work is our thoughts, our affects, our relationships, our subjectivities. It is becoming increasingly futile to distinguish work from leisure, communication, creativity, and play.

What does this mean politically? In the digital age free labour and wage-based labour co-exist. This could be seen either as a broadly acceptable situation or it could be perceived, as I do, as utterly unjust and ultimately intolerable. This opens up two paths for critique. The first path is a critique of free labour and the political demand, as Hesmondhalgh indicates, would result in calls to integrate free labour in the wage-based system. However this is a dangerous road, as it would lead to an even more commodified world where every single human activity becomes measured in terms of exchange value. It should not become a political project to make the wage-based system and its insane measurements of value even stronger. The second path of critique would turn in the opposite direction. This would be a critique of the wage-labour economy itself. The search for alternatives to wage-labour has recently gained momentum. Demands for a minimum wage for every citizen are probably the most prominent model being discussed which could replace wage labour. The work of André Gorz is perhaps the most developed contribution to an outline of work "beyond the wage-based society" (Gorz 1999). Needless to say this is a radical approach, even utopian, with not much hope for realisation. On the other hand these are times that might need some radical rethinking of how we work, relate, create and live.

Undoubtedly the 'free labour' concept has proven to be highly productive for an illumination of new developments in the social web. It is one of the key challenges in digital capitalism to rethink labour for those human activities that blossom outside wage-based relations. However the concept of labour in 'free labour' suffers from a severe lack of analytical rigour. It conflates a number of rather different practices. Is the downloading of a song comparable with chatting to friends on a social networking platform? Are both activities comparable to either the reading of a mailing list post or the production of a Wikipedia entry? All these activities come under the label of free labour but surely they are very different things. Is watching a television series on a private channel the same as watching a series on a public TV channel that does not run commercials? Is there a difference between the free labour of commercial networking sites such as Twitter, Google+, and Facebook and users of open-source networking sites such as Diaspora? Why do we talk about free labour with respect to a post on a mailing list but not with respect to a material letter in an envelope and a stamp on it, that we send to friend? Would we, communicating on the phone, provide free labour for telecom companies? After all, the only difference between telecom companies and social media platforms such as Facebook or Twitter lies in a slightly different business model. Telecom companies so not use advertisers, so they need to charge customers for their service, whereas social media platform providers get their revenue from advertisers and are therefore able to offer their services for free.

Even more problematic is perhaps the use of the free labour concept for activities that are in fact not really based on free labour in the first place. It is usually assumed that free labour is labour which is not financially compensated. Things are more complicated however. The digital commons is created through a variety of forms of labour with respect to financial compensation. Let us look at the production of open source code. There is a growing tendency towards the funding of open-source projects by companies. Furthermore it is important to point out that an open-source software developer is usually not a shopkeeper during the day who starts producing code in her spare time. The overwhelming majority of open-source programmers are employed programmers, they are working for software companies. Often open source code is produced anyway but then made available to the open source community (Weber 2004). So the labour that goes into the development of open source software is often indirectly paid for. A similar argument could be made for the knowledge commons. A Wikipedia entry on, say 'modernity' is likely to be written by a specialist on this topic, a philosopher perhaps, likely by someone who is employed by a university.

This is the reason why some areas within the digital commons have developed with mind-blowing speed, whereas other areas remain largely underdeveloped. The open-source commons and the knowledge commons are spearheading the digital commons for a good reason, as those who invest in building it often do get an income for their work. Other areas, for example the education commons[5] and the arts commons stand in rather stark contrast to open-source and the

[5] I have written elsewhere (Wittel 2012) about contemporary attempts to create, as a result of the neo-liberal destruction of public universities and as a response to this, autonomous universities and autonomous cells of higher education. For this analysis I have made a conceptual distinction between a knowledge commons (e.g. sites such as

knowledge commons. They remain largely underdeveloped as labour invested here is not paid for by other parties. These commons grow indeed with unpaid labour only, they rely on the passion, the love, and the enthusiasm by those who contribute and invest in it without any financial compensation.

Postscript: A critique of free labour is important. A critique of the critique of free labour is equally important. However let us not get anal about this. If labour is life and labour is practice it will be difficult to develop a concept of free labour that is less nebulous than the concept of labour itself. This would turn out to be a futile enterprise, directing energies towards a project that is bound to fail. The true value of the free labour debate lies in the articulation not of a conceptual but a social problem. This social problem will only cease to exist when both, wage-based labour and free labour become just labour again, which will only be decided by the outcome of class struggle.

6. Value

In order to understand labour in its full complexity we have to turn towards value. Like labour, value is a vast area of social research. It is a term with many meanings and perspectives, a term that triggered numerous debates and it is easy to get distracted and lose sight of what matters most. So, what is valuable about value for the political economy of media? This is the first question that needs to be addressed. The second question refers to Marx and to the value that his concept of value has to offer for a better understanding of our contemporary media and communications ecosystem.

Economic anthropologist David Graeber (2001) distinguishes between three streams of thought with respect to value. Firstly there are values in the sociological sense. These are conceptions of what is ultimately good, proper, or desirable in human life. Secondly there is value in the economic sense. This is the degree to which objects are desired and how this desire is measured in quantitative terms. Thirdly there is value in the linguistic sense, which goes back to de Saussure's structural linguistics, where value is seen as meaningful difference. This is a concept that puts words (or things) in relation to other things. The value of some things can only be established in contrast to or in comparison with other things.

Within political economy of *mass* media the concept of value has received the same marginal attention as the concept of labour. In fact, as labour and value are so closely interrelated in Marxist theory, the same body of literature that is interested in labour is also interested in value.[6] One can only speculate why explorations on value have been largely ignored. My own explanation for this omission is rather simple: In a very general way and as a starting point mass media were perceived as valuable as a public good, as an independent force to safeguard democracy. However due to the increasing privatisation of mass media organisations and the economic interests of their owners the value of mass media as public good was under constant threat. Thus political economy of *mass* media never focuses on the potential value of mass media but on its opposite, on the dangers that economic interests and political regulation pose for democratic societies. Such a perspective made perfect sense. After all, political economy of mass media stands in the tradition of critical theory. It would have been odd indeed to praise media conglomerates and media moguls for their contributions to a shining public sphere.

If we apply Graeber's typology of value to the political economy of *mass* media we get a result that is very similar to the claim just made, but it is also a bit more nuanced. It is safe to say that there never was a concern about value in the economic sense; there were no attempts to measure the value of media products or media organisations in a quantitative way. It is also safe to say that the sociological dimension of value as values has not been explored in any meaningful way. This would have meant an engagement with the socially desirable values of media and communication. This would have been a debate about the utopian aspects of media and communication, how media should be organised, how they should work, what they should be. However an argument

Wikipedia) and an education commons. This distinction is much about labour and free labour. The knowledge commons grows with the growth of knowledge. It grows naturally; it just has to be uploaded to the Internet. In stark contrast, an education commons requires extra labour (real voluntary labour) that is not financially supported.

[6] It is not a coincidence that literature which incorporates concepts of labour and value is usually concerned with advertising. It is advertising which has inspired Smythe (1977) to develop the concept of the audience commodity. Most notably we find debates on value in the so called 'blindspot' debate (Murdock 1978; Smythe 1978; Livant 1979), which was triggered by Smythe's (1977) claim that TV audiences provide free labour for advertisers and for media producers. Value is also central to the work of Sut Jhally (1990), who makes a very similar argument about the advertising industry and about the labour of media audiences as Smythe (1977).

could be made that the political economy of *mass* media has something to say about value in the linguistic sense of de Saussure's structuralism, about the meaningful difference between comparable forms of media production and media organisation, notably about the difference between publicly and privately owned media organisation. Without referring to the notion of value explicitly, the British tradition of political economy of *mass* media does compare public media organisations with commercial media organisations and the result of this comparison is a positive assessment of state owned media organisations such as the BBC.

What is the relevance of these streams of thought for the age of *distributed* media? So far there are no signs that *value in the economic sense* is becoming an issue for intense debate. Indeed the measurement of value in calculable and quantifiable units would always have been a rather questionable objective for political economists of media in the first place. With the growing importance of immaterial labour this would turn into more than just a questionable objective – it would be a mad and utterly futile project. It has become increasingly obvious that the value of intellectual and affective things is beyond measure. "What has irreversibly changed however, from the times of the predominance of the classical theory of value, involves the possibility of developing the theory of value in terms of economic order, or rather, the possibility of considering value as a measure of concrete labor." (Negri 1999, 77f.) Negri suggests instead to transform the theory of value from above to a theory of value "from below, from the basis of life" (Negri 1999, 78). Drawing on the work of Spinoza, Negri sees value as the power to act. We could add this to Graeber's typology as a fourth way to think about value: value is what empowers people to act.

In the age of distributed media, I would argue, debates on *value in the sociological sense* are blossoming. These are debates about the digital commons, about free labour and free culture, about openness, contribution, and sharing, about attention, about scarcity and abundance, about the gift economy, about property and access, about co-operation and collaboration as opposed to competition, about anonymous speech and anonymous action, about surveillance, privacy and transparency, about the value of experts and amateurs, about the internet and democracy, about people and technology, about media and political action, about capitalism and exit strategies. These are attempts to make judgements about what is good and desirable.

I hope my argument comes across: In the age of *mass media* the value of media to safeguard democracy was under threat. In the age of *distributed* media this value is still under threat. But this is not the end of the story. Now questions on power, ideology, and manipulation (which of course will remain highly relevant) are being supplemented by new questions on agency, empowerment, potency, and possibilities. In the age of *mass* media there was not much discussion that connected media and inquiries on what is important about life. In the age of *distributed* media these debates are in full swing.

Can Marx's concept of value contribute to these debates? Let us rehearse quickly: In the labour theory of value (as outlined in *Capital vol. 1*) Marx rejects claims by liberal political economists that the value of commodities should be defined by markets, by people exchanging money and commodities. This liberal perspective oscillates between a position where value is either somehow intrinsic to commodities or it is defined by the desire of those who want to purchase a commodity. Marx argues that value emerges from the amount of labour (and the amount of time) that has been invested in the production of a commodity. The exchange of money and commodities hides the fact that it is the production of the commodity that gives it its value. From this dictum that value is the socially necessary labour-time embodied in a commodity Marx develops his concept of surplus value. Surplus value then refers to the difference between the cost of the labour power (the wages) and the value of labour that is congealed in commodities. Surplus value or profit is the difference between what the worker creates and what he or she receives in return. If value is created through labour, surplus value is created through the exploitation of labour.

Even within Marxist theory his labour theory of value has been subject to much controversy. For Slavoj Žižek it is "usually considered the weakest link in the chain of Marx's theory" (Žižek 2011, 205). Drawing on the work of Moishe Postone, Žižek argues that Marx's labour theory of value is not a trans-historical theory, but a theory of value in a capitalist society only. This poses an important question. How relevant is Marx's theory for our contemporary media ecosystem that is partly capitalist, partly publicly funded, and partly a digital commons? Does it make sense to apply his theory to what is sometimes called a 'gift economy' (Barbrook 1999) and sometimes an 'economy of contributions' (Siefkes 2007). And if so, how would this be possible? Let us consider for example a gift economy. Does it really help in a gift economy to locate the source of value specific objects in the production of these objects at the expense of the relationship between those who exchange objects as gifts? Such an approach would not make much sense. There is a need to

broaden the horizon for theories of value that are exclusively developed for an understanding of capitalist economies only. The obvious place to find inspiration is the anthropological literature on value.

Graeber has produced an excellent review of the anthropological literature on value. He is searching for a concept that could overcome the dichotomy of gifts and commodities that could bridge a Maussean approach and a Marxist approach to value. He is especially impressed with the concept of value developed by Nancy Munn who has done extensive fieldwork in Melanesia. For Munn, value emerges in action. It is the process by which a person's capacity to act is transformed into concrete activity. Value is ultimately about the power to create social relationships.

> "Rather than having to choose between the desirability of objects and the importance of human relations one can now see both as refractions of the same thing. Commodities have to be produced (and yes, they have to be moved around, exchanged, consumed...), social relations have to be created and maintained; all of this requires an investment of human time and energy, intelligence, concern […] Framing things this way of course evokes the specter of Marx […] We are clearly dealing with something along the lines of a labor theory of value. But only if we define 'labor' much more broadly." (Graeber 2001, 45)

One might add that such a concept of labour is pretty much identical with Marx general definition of labour as practice. And it is identical with what Negri and Spinoza describe as the power to act.

All this is theory and it might be hard to come up with a rationale as to why political economy of media needs to engage with value theory in the first place. In fact this is not the point I want to make. I do think however, that Marx's labour theory of value (understanding labour in this broad meaning of the term) would open up new paths for empirical research. If it makes sense to see *value as the power to act* and to see it as the power to create social relations, if value is about how people give meaning to their own actions, then a political economy of communication, a political economy of distributed media would be in a perfect position to redefine what political economy means and to establish what Negri (1999) calls a political economy from below. This would be research on value that is focused not on structures but on *subjectivities* and their desires to create, to connect, to communicate, to share, to work together and to give meaning to all these things.

7. Property

In the age of *mass media* property has always been significant with respect to the ownership of the means of production. However an interest on property in terms of media content was rather limited. Ronald Bettig (1996) is perhaps overly careful to say that the area of intellectual property and copyright in particular has been "relatively unexplored". He is one of very few political economists who examined the property of media content. Interestingly this is a study just at the beginning of the digital turn.

Bettig is interested in the difference between the normative principles of intellectual property and the actually existing system. The central normative justification for intellectual property is built on the assumption that the creators of intellectual and artistic work need an incentive to be creative. The copyright is meant to give the creator exclusive rights to exploit their work, which in turn will provide an income for the creator and motivate her to produce new work. However the actual copyright system does not operate according to this ideal. Most artistic and intellectual work relies on a process of production, reproduction, and distribution that involves many people and expensive technology. According to Bettig "ownership of copyright increasingly rests with the capitalists who have the machinery and capital to manufacture and distribute" (Bettig 1996, 8) the works.

> "Precisely because the capitalist class owns the means of communication, it is able to extract the artistic and intellectual labor of actual creators of media messages. For to get 'published', in the broad sense, actual creators must transfer their rights to ownership in their work to those who have the means of disseminating it." (Bettig 1996, 35)

This is a very correct analysis for the age of *mass media* that does not leave much room for hope. Still he states with astonishing foresight that "the enclosure of the intellectual and artistic commons

is not inevitable or necessary, even though the emphasis on the logic of capital makes it seem as if it is." (Bettig 1996, 5). Bettig must have felt that times they are changing. In the mid 1990s when his book was published sharing cultures and the digital commons were largely restricted to the open source movement. There was no file-sharing software such as Napster, no legal experiments with copyright such as the Creative Commons, there was no social web. In the age of mass media the expansionary logic of capital has not left much room for an intellectual and artistic commons. An overwhelming part of media content was not common property but captured by capital. In this respect Bettig's statement has some prophetic qualities. By now it has become very clear that the enclosure of the intellectual and artistic commons is not inevitable at all. In fact this is the "battle to the death" which Kleiner refers to, the battle between artistic and intellectual labour and those who want to rescue the digital commons on one side of the battlefield and capital and those who aim for enclosure on the other side.

Bettig has developed a convincing argument with much empirical backup as to why the copyright arrangements – as legitimate as they are in an ideal normative sense – have not really supported the creators of intellectual and artistic work, but those who control the communication flows. With the digital turn this rather problematic arrangement is becoming even worse. As all digital objects can be reproduced endlessly and distributed with minimum additional costs they count as non-rival goods. In fact most intellectual property is non-rival, meaning they can be used by one person without preventing other people from using the same goods. Digital objects however are not only non-rival; they are also abundant by nature. Therefore all attempts to rescue the idea of copyright via digital rights are absurd in the sense that they create artificial scarcity. They turn objects that are abundant into legally scarce goods. To put it ironically: In the digital age only the creation of artificial scarcity can feed capitalist accumulation. It is exactly because digital things are not just non-rival but also abundant that the issue of intellectual property has moved from a sideshow to centre stage.

It is impossible to summarise the free culture debate in a few lines. I still want to make a few remarks, only to situate the key positions with respect to Marx. The first thing to note is that there is a relatively straightforward line between critical political economists and liberal political economists such as Yochai Benkler (2006) and Lawrence Lessig (2004). The latter celebrate free culture without giving up on the legitimacy of intellectual property. They merely suggest modifications to copyright law. They also applaud the digital commons as a progressive development without being overly concerned about the free labour that goes into the building of the digital commons. For Benkler (2006, 3) commons-based peer production enhances individual freedom and autonomy. This is where critical political economists take a different position. For them free labour is a problem that needs to be addressed.

The debates within the camp of critical political economists of digital media are not so clear-cut. While both positions exist, a passionate defence of free culture (e.g. Cory Doctorow 2008 or Kevin Carson 2011) and a passionate concern about free labour and the exploitation of this free labour by capital (Pasquinelli 2008; Kleiner 2010), in most accounts we find a general acknowledgement of this dilemma, a dilemma that is hard to crack, with many commentators sitting on the fence. One way out of the free culture dilemma resulted in the search for new models to guarantee the creators of artistic or intellectual work some income (e.g. Peter Sunde's 'Flattr' or Dmytri Kleiner's 'copyfarleft' and 'venture communism' suggestions).

Apart from some rare exceptions (notably Wark 2004 and Kleiner 2010), these debates circumvent however a discussion on property itself. Even those who passionately defend free culture support their position with rather pragmatic arguments, for example with the claim that free culture ultimately stimulates creative production and innovation, whereas copyright brings about a reduction of creative and innovative work. While these are important arguments I do find it astonishing that a fundamental critique of intellectual property itself has so far not been put on the table. Badiou asks a good rhetorical question: Why do we "keep tight controls on all forms of property in order to ensure the survival of the powerful?" (Badiou 2010, 5)

This is where Marx could come in rather handy. The first thing we can learn from Marx is that property is not a natural right. It is a historic product. Property relations are subject to specific historic conditions.

> "The French Revolution, for example, abolished feudal property in favour of bourgeois property. The distinguishing feature of Communism is not the abolition of property generally, but the abolition of bourgeois property. But modern bourgeois private property is the final and most complete expression of the system of

> producing and appropriating products that is based on class antagonism, on the exploitation of the many by the few. In this sense, the theory of the Communists may be summed up in the single sentence: Abolition of private property." (Communist Manifesto, 68)

The second thing to note is that Marx's perspective on property is innovative and very distinct from liberal political theorists, as he does not focus on the relationship between a person and an object. Instead Marx conceptualises property as a relation that one person establishes to other people with respect to commodities. So fundamentally property relations are an expression of social relations. In capitalism property is based on the antagonism between capital and wage-labour. Is it is based on the accumulation of profit on the side of those who own the means of production.

> "Self-earned private property, that is based, so to say, on the fusing together of the isolated, independent laboring-individual with the conditions of his labor, is supplanted by capitalistic private property, which rests on exploitation of the nominally free labor of others, i.e., on wage-labor. The capitalist mode of appropriation, the result of the capitalist mode of production, produces capitalist private property." (Capital vol. 1, 762-63)

As such capitalist private property is not so much about the ownership of things, but about the right to exclude others from using them. Dismantling the widespread myth that private property is justly earned by those who are intelligent and willing to work hard while the rest are 'lazy rascals', Marx comes up with an alternative explanation on the origin of property:

> "Such insipid childishness is every day preached to us in defence of property […] In actual history it is notorious that conquest, enslavement, robbery, murder, briefly force, play the greater part." (Capital vol. 1, 713-14).

Why does this quote resonate so well in a time when capitalism is facing its first global crisis?The third and for our purposes more important observation is Marx's distinction between *private and personal property*. In capitalism, *private* property is bad, it is not only the result of alienated labour (wage-labour) but worse, is it also the means that makes alienated labour possible in the first place and the means to maintain this unjust relation between capital and labour. Private property is productive property. It is property that is crucial for capitalist production. It is property that can be used for the creation of surplus value. It might be a bit simplistic but in general Marx equates private property with privately owned means of production. This is very different from *personal* property or property for consumption (for reproduction, for subsistence), which should not be socialised as there is no need for doing so. Unproductive property or property based on needs is rather harmless after all.

> "When, therefore, capital is converted into common property, into the property of all members of society, personal property is not thereby transformed into social property. It is only the social character of the property that is changed. It loses its class character […] The average price of wage-labour is the minimum wage, i.e. that quantum of the means of subsistence, which is absolutely requisite to keep the labourer in bare existence as a labourer […] We by no means intend to abolish this personal appropriation of the products of labour, an appropriation that is made for the maintenance and reproduction of human life, and that leaves no surplus wherewith to command the labour of others." (Communist Manifesto, 68f.)

No doubt intellectual property is not personal but *private* property. No doubt these are productive commodities. They produce surplus value and also lay the foundation for future commodities that produce even more surplus value. Information produces more information, news produces more news, knowledge produces more knowledge, and art produces more art. Therefore intellectual property is an invention that in capitalism does not protect the creators of these immaterial objects. Instead it helps capitalist accumulation. Bettig has supported this claim in great detail with rich empirical evidence.

In my view the debate between those who support free culture and those who are concerned about the exploitative nature of free labour got stuck. Both positions should be supported from a

Marxist point of view. They contradict each other but they do so in perfect harmony with what Marx sees as internal contradictions of capitalism. Furthermore, the development of new business models for intellectual and artistic workers does not look promising, neither theoretically nor practically. It all boils down to the simple fact that capitalists are not willing to support free labour for altruistic reasons and those who are exploited earn just enough to maintain their own subsistence.

The only way out of this dilemma is a debate on the legitimacy of private property itself. Property relations reflect social relations. Now we can close the circle. It will bring us back to value, to value in the sociological sense (what we appreciate about life) and to the fourth approach to value, the one that builds on Spinoza's theory of affect, to value as the power to act. It will also bring us back to labour. If free culture is good for society (which is a claim that never has been seriously contested) then society must find a way to support the creators of free culture. Society must find a way to support their unpaid contributions, their gifts to humanity. It is as simple as that. A global basic income is not the only possible solution to this problem, but it could be a good starting point.

A related debate that should be triggered from the free-labour-free-culture-dilemma refers to the division of labour. In a communist society "there are no painters; at most there are people who, among other things, also paint." (*Literature and Art*, 76)

If people use their power to act against the capitalist property regime, they will engage in struggle:

> "The transformation of scattered private property, arising from individual labour, into capitalist private property is, naturally, a process, incomparably more protracted, violent, and difficult, than the transformation of capitalistic private property, already practically resting on socialised production, into socialised property. In the former case, we had the expropriation of the mass of the people by a few usurpers, in the latter we have the expropriation of a few usurpers by the mass of the people." (Capital vol. 1: 764)

Marx was perhaps a bit overly optimistic about this struggle. Then again, this optimism and the hope that goes with it are very much needed.

8. Struggle

> *There's class warfare*, all right, but it's *my class, the rich* class, that's *making* war, and *we*'re *winning*. (Warren Buffett 2011)

In the age of *mass* media political economists of communication have applied Marxist theory in a rather limited way. In the age of *digital and distributed* media, so my main argument, political economy of communication can apply Marx's concepts in a broader way. I have used some key concepts of his political economy – in particular the concepts of labour, value, and property, which are all interlinked – to demonstrate their relevance for an analysis of our contemporary media ecology, which consists of an interesting mix of the state, the market, and the commons. Another concept which is obviously at the very heart of Marx's political economy is class struggle. Digital and distributed media have opened up new possibilities for resistance and for the construction of alternatives to capitalism. None of these possibilities can be achieved without more fundamental changes enforced by the struggle of the oppressed.

Like labour, value and property, the concept of class struggle has featured within the political economy of *mass* media, but only at the margins (e.g. Mattelart and Siegelaub 1979). It never has been a key concept. Moreover, Dyer-Witheford is right to state that "while there are some studies of working class battles over digital machines and electronic media from a class struggle position, these have usually not offered any theoretical perspectives beyond...neo-Luddism." (Dyer-Witheford 1999, 64)

A theorisation of media and struggle is among the most important tasks for political economists of distributed media. How can we conceptualise class struggle in the 21st century, as there are so many practices associated with it? These are practices which refer to the agency of workers who resist exploitation at each point in the value chain, something political economists have recently addressed in detailed accounts (Huws and Leys 2003; Qui 2009; Mosco, McKercher and Huws 2010). Struggle in the information age also refers to hacktivism and forms of resistance employed by loosely connected cyber 'groups' such as 'Anonymous'. Thirdly struggle refers to all those

energies that are invested in the digital commons and the building of alternative goods and structures. Finally it refers to social movements. 2011 was the year of the first global uprising. While the specific relationship between social media and social movements does need to be studied in more detail, we can safely claim that social media can empower social movements and political activists. In the digital age the connection between media and struggle is complex but strong. Political economists of distributed media are expanding their research beyond a focus on media organisations or media industries; they are also studying what is happening in cyberspace; and they are studying what is happening in the real streets and squares.

Marx is back indeed and this time it's personal.

References

Andrejevic, Mark. 2008. Watching Television Without Pity. *Television & New Media* 9 (1): 24-46.

Andrejevic, Mark. 2011. Facebook als Neue Produktionsweise. In *Generation Facebook: Über das Leben im Social Net*, edited by Oliver Leistert and Theo Röhle, 31–50. Bielefeld: transcript Verlag.

Andrejevic, Mark. Exploiting YouTube: Contradictions of User-generated Labour. In *The YouTube Reader*, edited by Pelle Snickars and Patrick Vonderau, Stockholm: National Library of Sweden.

Artz, Lee, Steve Macek, and Dana Cloud (eds). 2006. *Marxism and Communications Studies: The Point is to Change It*. New York: Peter Lang.

Badiou, Alain. 2010. *The Communist Hypothesis*. London: Verso.

Barbrook, Richard. 1999. The High-Tech Gift Economy. In *Readme! Filtered by Nettime: ASCII Culture and the Revenge of Knowledge*, edited by Josephine Bosma, Pauline van Mourik Broekman, Ted Byfield Matthew Fuller, Geert Lovink, Diana McCarty, Pit Schultz Felix Stalder, McKenzie Wark, and Faith Wilding, 132-138. New York: Autonomedia.

Benkler, Yochai. 2002. Coase's Penguin, or, Linux and the Nature of the Firm. *The Yale Law Journal* 112 (3): 369-446.

Benkler, Yochai. 2006. *The Wealth of Networks. How Social Production Transforms Markets and Freedom*. New Haven and London: Yale University Press.

Bettig, Ronald V. 1996. *Copyrighting Culture: The Political Economy of Intellectual Property*, Oxford: Westview.

Burton, Graeme. 2010. *Media and Society: Critical Perspectives*. Maidenhead: Open University Press.

Carson, Kevin. 2011. How 'Intellectual Property' Imedes Competition. In *Markets Not Capitalism: Individualist Anarchism Against Bosses, Inequality, Corporate Power, and Structural Poverty*, edited by Gary Chartier & Charles W. Johnson, 325-334. London, New York: Minor Compositions and Autonomedia.

Castells, Manuel. 1996. *The Rise of the Network Society*. Maldan, MA and Oxford: Blackwell.

Curran, James. 1990. The New Revisionism in Mass Communication Research: A Reappraisal. *European Journal of Communication* 5 (2): 135-164.

Curran, James. 2000. *Media Organisations in Society*. London: Arnold.

Curran, James. 2010. *Media and Society*. London: Bloomsbury Academic.

Curran, James and Jean Seaton. 1997. *Power Without Responsibility: The Press and Broadcasting in Britain*. London: Routledge.

Curran, James. 2003. *Power Without Responsibility: The Press, Broadcasting and New Media in Britain*. London: Routledge.

Devereux, Eoin. 2003. *Understanding the Media*. London: Sage.

Doctorow, Cory. 2008. *Content*. San Francisco: Tachyon Books.

Durham, Meenakshi Gigi and Douglas Kellner. 2006. *Media and Cultural Studies: Keyworks*. Oxford: Blackwell.

Dyer-Witheford, Nick. 1999. *Cyber-Marx: Cycles and Circuits of Struggle in High-Technology Capitalism*. Urbana and Chicago: University of Illinois Press.

Fuchs, Christian. 2008. *Internet and Society: Social Theory in the Internet Age*. London: Routledge.

Fuchs, Christian. 2011. *Foundations of Critical Media and Information Studies*. New York: Routledge.

Fuchs, Christian, Kees Boersma, Anders Albrechtslund, and Marisol Sandoval (eds.). 2012. *Internet and Surveillance: The Challenges of Web 2.0 and Social Media*. New York: Routledge

Garnham, Nicholas. 1986. Contribution to a Political Economy of Mass Communication. In *Media, Culture & Society: A Critical Reader*, edited by Richard E. Collins, James Curran, Nicholas Garnham, Paddy Scannell, Philip Schlesinger, and Colin Sparks, 9-32. London: Sage.

Garnham, Nicholas. 1990. *Capitalism and Communication: Global Culture and the Economics of Information*. London: Sage.

Garnham, Nicholas. 2000. *Emancipation, the Media, and Modernity: Arguments About the Media and Social Theory*. Oxford: Oxford University Press.

Golding, Peter, Graham Murdock, and Philip Schlesinger. 1986. *Communicating Politics: Mass Communications and the Political Process*. Leicester: Leicester University Press.

Gorz, André. 1999. *Reclaiming Work: Beyond the Wage-based Society*. Cambridge: Polity.

Gorz, André. 2010. *The Immaterial*. Calcutta: Seagull Books.

Graeber, David. 2001. *Toward an Anthropological Theory of Value. The False Coin of Our Own Dreams*. New York: Palgrave.

Grossberg, Lawrence, Ellen Wartella, and Charles Whitney. 1998. *Mediamaking: Mass Media in a Popular Culture*. Thousand Oaks, CA: Sage.

Hardy, Jonathan. 2010. The Contribution of Critical Political Economy. In *Media and Society*, edited by James Curran, 186-209. London: Bloomsbury.

Herman, Edward and Noam Chomsky. 1988. *Manufacturing Consent: The Political Economy of the Mass Media*. London: Vintage.

Herman, Edward and Robert McChesney. 1997. *The Global Media: The New Missionaries of Corporate Capitalism*. London: Cassell.
Hesmondhalgh, David. 2010. User-generated Content, Free Labour and the Cultural Industries. *Ephemera* 10 (3/4): 267-284.
Huws, Ursula and Colin Leys. 2003. *The Making of a Cybertariat: Virtual Work in a Real World*. New York: Monthly Review Press.
Jhally, Sut. 1990. *The Codes of Advertising: Fetishism and the Political Economy of Meaning*. New York: Routledge.
Jhally, Sut. 2006. *The Spectacle of Accumulation: Essays in Culture, Media, & Politics*. New York: Peter Lang.
Kellner, Douglas. 1995. Media Communications vs. Cultural Studies: Overcoming the Divide. *Communication Theory* 5 (2): 162-177.
Kleiner, Dmytri. 2010. *The Telekommunist Manifesto*. Amsterdam: Institute of Network Cultures.
Laughey, Dan. 2009. *Media Studies: Theories and Approaches*. Harpenden: Kamera.
Lazzarato, Maurizio. 1998. Immaterial Labor. Accessed February 29, 2012. http://www.generation-online.org/c/fcimmateriallabour3.htm.
Lessig, Lawrence. 2004. *Free Culture: The Nature and Future of Creativity*. New York: Penguin Books.
Livant, William. 1979. The Audience Commodity: On the "Blindspot" Debate. *Canadian Journal of Political and Social Theory* 3 (1): 91-106.
Livingstone, Sonia. 2009. On the Mediation of Everything. *Journal of Communication* 59 (1): 1-18.
Marx, Karl. 1973. *Grundrisse: Foundations of the Critique of Political Economy*. London: Penguin Books.
Marx, Karl. 1977. *A Contribution to the Critique of Political Economy*. Moscow: Progress Publishers.
Marx, Karl. 1988. *The Communist Manifesto*, edited by Frederic Bender, New York: W. W. Norton.
Marx, Karl and Frederick Engels. 1974. *The German Ideology*. London: Lawrence and Wishart.
Marx, Karl and Frederick Engels. 1996. *Karl Marx Frederick Engels: Collected Works, Vol. 35: Karl Marx ; Capital, Vol. 1*. London: Lawrence and Wishart.
Marx, Karl and Frederick Engels. *Literature and Art*. New York: International Publishers.
Mattelart, Armand and Seth Siegelaub. 1979. *Communication and Class Struggle. An Anthology in 2 Volumes*. New York: Bagnolet.
McChesney, Robert and Victor Pickard, eds. 2011. *Will the Last Reporter Please Turn Out the Lights: The Collapse of Journalism and What Can Be Done to Fix It*. New York and London: The New Press.
McQuail, Denis. 2005. *McQuail's Mass Communication Theory*. London: Sage Publications.
Mosco, Vincent. 1996. *The Political Economy of Communication: Rethinking and Renewal*. London: Sage.
Mosco, Vincent. *The Digital Sublime: Myth, Power, and Cyberspace*. Cambridge, MA: MIT Press.
Mosco, Vincent, Catherine McKercher, and Ursula Huws. 2010. *Getting the Message: Communications Workers and Global Value Chains*. London: The Merlin Press LTD.
Murdock, Graham. 1982. Large Corporations and the Control of the Communications Industries In *Culture, Society and the Media*, edited by Michael Gurevitch, 118-150. London: Methuen.
Murdock, Graham. 1978. Blindspots About Western Marxism: A Reply to Dallas Smythe. *Canadian Journal of Political and Social Theory* 2 (2): 109-119.
Murdock, Graham. 2004. Past the Posts: Rethinking Change, Retrieving Critique. *European Journal of Communication* 19 (1): 19-38.
Murdock, Graham and Peter Golding. 2001. Digital Possibilities, Market Realities: The Contradictions of Communications Convergence. In *Socialist Register 2002: A World of Contradictions*, edited by Leo Panitch and Colin Leys, 111-129. London: Merlin Press.
Negri, Antonio. 1999. "Value and Affect." *Boundary 2* 26 (2): 77-88.
Nichols, John and Robert McChesney. 2006. *Tragedy and Farce: How the American Media Sell Wars, Spin Elections and Destroy Democracy*. New York: New Press.
Pasquinelli, Matteo. 2007. ICW – Immaterial Civil War: Prototypes of Conflict Within Cognitive Capitalism. In *MyCreativity Reader: A Critique of Creative Industries*, edited by Geert Lovink and Ned Rossiter, 69-80. Amsterdam: Institute of Network Cultures.
Pasquinelli, Matteo. 2008. *Animal Spirits: A Bestiary of the Commons*. Amsterdam: NAi Publishers and Institute of Network Cultures.
Qui, Jack Linchuan. 2009. *Working-Class Network Society: Communication Technology and the Information Have-Less in Urban China*. Cambridge (MA): MIT Press.
Schiller, Herbert. 1989. *Culture, Inc: The Corporate Takeover of Public Expression*. N.Y.: Oxford U.P.
Siefkes, Christian. 2007. *From Exchange to Contributions: Generalizing Peer Production into the Physical World*. Berlin: Edition C. Siefkes.
Smythe, Dallas. 1977. *Dependency Road: Communications, Capitalism, Consciousness, and Canada*. Norwood: Ablex.
Smythe, Dallas. 1978. Rejoinder to Graham Murdock. *Canadian Journal of Political and Social Theory* 2 (2): 120-127.
Stallabrass, Julian. 2003. *Internet Art: The Online Clash of Culture and Commerce*. London: Tate Publishing.
Terranova, Tiziana. 2004. *Network Culture: Politics For the Information Age*. London: Pluto Press.
Wark, McKenzie. 2004. *A Hacker Manifesto*. Cambridge, MA: Harvard University Press.
Wayne, Mike. 2003. *Marxism and Media Studies: Key Concepts and Contemporary Trends*. London: Pluto.
Weber, Steven. 2004. *The Success of Open Source*. Cambridge, MA and London: Harvard University Press.
Williams, Raymond. 1958. *Culture and Society 1780-1950*. London: Chatto & Windus.
Williams, Raymond. 1961. *The Long Revolution*. London: Chatto & Windus.
Wittel, Andreas. 2004. Culture, Labour and Subjectivity: For a Political Economy from Below. *Capital & Class* 84 (Special Issue): 11-30.
Wittel, Andreas. 2011. Qualities of Sharing and Their Transformations in the Digital Age. *International Review of Information Ethics* 15.
Wittel, Andreas. Forthcoming 2012. Hochschulbildung als Gut: Vom öffentlichen Gut zur Ware zum Gemeingut? In *Wissensarbeit Und Arbeitswissen. Zur Ethnographie Des Kognitiven Kapitalismus*, edited by Gertraud Koch and Bernd

Juergen Warneken, Frankfurt am Main: Campus.
Žižek, Slavoj. 2011. *Living in the End Times*. London, New York: Verso.

About the Author

Andreas Wittel
is a Senior Lecturer at Nottingham Trent University (UK) and is currently interested in the interface between digital media and critical theory.