



Digital prosumption and alienation

Edward Comor

abstract

Since the hybrid producer-consumer – the prosumer – was conceptualized three decades ago, prosumption has been embraced by both mainstream and progressive analysts. With digital technologies enabling more people to engage in an array of online prosumption activities, one shared claim is particularly striking: the empowering and humanizing implications of prosumption will mark the end of human alienation. In this paper, I assess this extraordinary prediction by, first, establishing that the core of Marx's conceptualization of alienation is capital's dominance over human relations, compelling people to become mere tools of the production process. Second, I assess both general and specific digital prosumption developments in light of this understanding of alienation. Third, my analysis concludes that people will participate in prosumption in at least three discernible ways: most will remain relatively powerless tools of capital; some will act as capital's creative tools; and a minority (those possessing extraordinary capabilities) will have the potential to employ prosumption in ways that redress their alienation.

Introduction

In his 1980 book *The Third Wave*, Alvin Toffler prophesized that people soon would customize the goods and services they consume. Through their use of networked computers, he predicted that consumption would become increasingly integrated with production, distribution and exchange, so much so that power over the production process would shift into the hands of everyday people. Mass industrialization and consumption, Toffler argued, would be eclipsed by self-customization led by the hybrid producer-consumer: what he called the prosumer.

For Toffler, alienation was the outcome of Second Wave industrial society. Unlike the agrarian First Wave, Second Wave humanity was dominated by mechanized tasks and routines controlled by centralized, hierarchical interests. With the coming post-industrial Third Wave, Toffler anticipated the kinds of political, economic and sociological changes now lauded by prosumption's progressive proponents. With the home transformed into an 'electronic cottage' – a place in which work and leisure co-exist and the increasingly empowered prosumer wins back her freedoms and sense of self – 'the first truly humane civilization in recorded history' is due to unfold (Toffler, 1980: 11).

Almost three decades later, Tapscott and Williams, in their best-seller *Wikinomics* (2006), further popularized prosumption as nothing less than the core activity of a new economy – one in which peer-to-peer networking and collaboration are facilitating the construction of an economic system that is innovative, creative and universally beneficial. This bold vision has been echoed by a legion of critical analysts, some using the term ‘co-creation’ instead of prosumption.¹ Zwick et al., for example, write that prosumption’s exploitation of ‘the productive value of social cooperation, communication, and affect ... represents a closing of the economic and ontological gap between consumption and production...’ (Zwick et al., 2009: 182). Once this is accomplished, the individual will be empowered to realize his or her potentials.² Thus, for most proponents of prosumption, a new social order is seen to be ascendant – one characterized by a more cooperative and fulfilling life. In sum, for both mainstream and progressive analysts, the prosumer society will be a non-alienated society.

In what follows, I assess this remarkable prognostication by mapping out the theoretical parameters of prosumption (what, ideally, it does) alongside its real-world applications. In doing this, I answer the following: does the ascendancy of prosumption really mark the beginning of the end of human alienation? I begin to answer this question by detailing Marx’s conceptualization of alienation.³ I then explain how technology impacts alienation, arguing that contemporary alienation takes place when human beings act and relate to one another as tools of capital. Following this, my paper examines the impact of contemporary prosumption on alienation concluding, among other things, that digital prosumption will enable increasing numbers to become ‘creative tools’ of the production process.⁴

1 ‘Co-creation’ appears to have been developed by business interests as a means of framing prosumption as a consumer-corporate ‘partnership’ while, for academics, the term likely reflects the tendency of some postmodernists to celebrate creativity and choice through consumption (Zwick et al., 2009).

2 Toffler, thirty years earlier, made the same argument (Toffler, 1980: 11). Beyond this coming together of politically disparate interests, we also should recognize that both mainstream and progressive theorists have arrived at similar conclusions regarding the primary agent of this new order: the prosumer or co-creator herself. For mainstream observers, the perfect market system – one that produces what people want, when and where they want it – is idealized hand-in-hand with the ‘sovereign’ consumer (Gates, 2006; Tapscott and Williams, 2006). For progressives, prosumption’s/co-creation’s assumed pluralization of power and creativity enables the ‘autonomous’ worker to openly commune and realize Marx’s conceptualization of a ‘general intellect.’ As with Web 2.0 developments involving prosumption/co-creation, a growing global workforce is said to be involved in labor that develops, refines and intensifies both know-how and cooperation. For a critical analysis addressing these and related developments using concepts from both Foucault and Autonomist Marxists, see Coté and Pybus (2008). See also Lazzarato (2004). To avoid the awkwardness of gender-neutral prose, from this point onward I will use he/she, him/her, men/women interchangeably.

3 Readers familiar with G.A. Cohen’s critique of Marx concerning alienation will find much in this overview that reflects his analysis. See esp. Cohen ‘Bourgeois and Proletarians’ (1968). See also Cohen (2000).

4 Elements of this paper draw on the contents of Comor (2011).

Alienation

Alienation is a condition long associated with capitalist modernity. Generally defined, it constitutes humanity's denial of its essence. 'Man', writes Erich Fromm, 'has created a world of man made things... He has constructed a complicated social machine to administer the technical machine [i.e. industrial capitalism] he built. Yet this whole creation of his stands over and above him...He is owned by his own creation, and has lost ownership of himself' (Fromm, 1955: 115).

To assess whether or not prosumption can redress alienation, we first need to fully articulate what alienation is and how it is related to political, economic and technological developments. For Toffler and others, it is Marx's early conceptualization of alienation – most clearly articulated in his *Economic and Philosophic Manuscripts* (originally published in 1844) and *The German Ideology* (1846) – that is challenged by prosumption.⁵ According to Marx the essence of humanity is its engagement in the act of self-creation. The reason for this is that human beings are distinguished from other animals because people make their own 'nature' – they, in effect, produce the conditions of their own existence.⁶ People who do this are exercising their human essence; those who do not are alienated from it.

In capitalist society workers live in a state of alienation because their engagement with production is a matter of survival rather than self-creation. Most capitalists, because they fail to engage their creative powers, are even further removed from this essence. To reiterate, for Marx, the worker (or proletarian) does not produce to realize his creative powers – he produces for a wage. The capitalist (or bourgeois owner), on the other hand, does not even produce.⁷ Unlike the proletariat, the bourgeoisie have no hope of escaping their alienation as once they cease to own the means of production and employ others to produce they, literally, cease to be capitalists. One consequence of this is that, while the worker may aspire to end his alienation by overthrowing capitalism, the bourgeois owner is compelled to (unconsciously) embrace his alienated existence.

But why, we might ask, does the bourgeois owner fail to see her existential condition? For Marx the answer is rooted in the fact that the capitalist is not, in fact, powerless: her money and capital exert power for her.

5 The concept of alienation precedes Marx. In the Old Testament alienation is equated with idolatry. For the prophets, man is criticized for spending his energy and creativity on idols; idols that man himself has built but now worships as if they are independent of his own creation. Indeed, the very monotheistic religion that the prophets promoted has itself become a form of idolatry in that human beings now project their power to love and create unto God who they, in turn, have come to depend upon for their source of love and creativity (Fromm, 1955: 113).

6 Of course this is not to say that human beings can divorce themselves from their dependency on the earth or the limitations of their biological circumstances. From an evolutionary perspective, the early humanoids that survived successfully engaged in socially productive activities – activities that were pre-conditions of humanity's survival given the physical deficiencies of the species in relation to other species and ecological conditions.

7 It is important to note that some capitalists do, of course, 'produce' – especially those who are directly involved in the initial, often creative stages of their enterprise's development. Innumerable examples of the creative-productive owner can be found in the early years of commerce involving digital technologies.

The bourgeoisie live inescapably alienated lives as their capital (including their technologies) constitutes an artificial kind of humanity. The owner himself thus is dependent on things to express an ersatz existence. While both the worker and the capitalist are alienated, according to Marx, ‘the worker suffers in his very existence, the capitalist suffers in the profit on his dead Mammon’ (Marx, 1844: 4). In effect, the capitalist is more than just dependent on his capital – he is insulated by it.

But what of the conceptualization of alienation as, more directly, the outcome of the capitalist-worker wage labour relationship? This, surely, is the form of alienation that Toffler and others forecast will be eliminated through prosumption. From this more familiar understanding of alienation, the fact that the products of the proletariat’s labour are not owned or controlled by the worker (but, instead, by his employer) generates what can be termed product-alienation. Moreover, through the systemic drive to generate surplus value involving the degradation of workers, yet another form of alienation emerges – process-alienation.

In both product- and process-alienation, work is not performed to satisfy direct needs. Instead, for workers, the aim is to gain the means (the wages) required to satisfy needs through subsequent purchases. Under these conditions people are compelled to sell their capacity to labour to capitalists as if it is just another commodity – in effect, a thing. As a result, human relations become structurally disjointed as working people, especially as they become appendages to ‘the machine’ of production, have little or no direct relationship with one another or, for that matter, their own humanity (Cohen, 1968: 218-19).

Toffler and subsequent prosumption theorists anticipate a remedy to product- and process-alienation. As people come to produce what they consume, and labour becomes engaged in direct forms of exchange with others (rather than for money), the prosumer is re-connected with both other people and to her own creative essence. Johan Söderberg, to give just one contemporary example, embraces open source prosumer software as ‘a showcase of the productive force of the general intellect... It underpins’, he says, ‘the claim by Autonomist Marxists that production is becoming intensively social, and supports their case of a rising mismatch between collective labour power and an economy based on private property’ (Söderberg, 2002).⁸

Such optimistic conclusions are premature. One reason I say this is that arguments citing product- and/or process-alienation as core underpinnings of contemporary alienation are unsustainable – unsustainable both empirically and logically.

Recent research by Peter Archibald documents that worker alienation has not declined in relatively ‘developed’ political economies (nor has it been exported to the ‘developing’ world). Indeed, those who have escaped industrial society’s dehumanizing factories (those ‘progressing’ into service sector positions) usually live with less job

8 Söderberg adds that ‘Initially, ideological confusion is caused by capital’s experimentations to exploit the labour power and idealism of collectives..., which makes the demarcation line between friend and foe harder to draw. But for every successful ‘management’ of social cooperation to boost profits, other parts of the community will be radicalised and pitched into the conflict. Inevitably, communities will turn into hotbeds of counter-hegemonic resistance’ (Söderberg, 2002).

security and more pervasive forms of surveillance, not to mention the daily stresses of handling, processing and acting on never-ending flows of information.⁹ Archibald also cites polling data in which overwhelming majorities say they either are not engaged or actively disengaged from their work. Thus, despite the much hyped rise of a new ‘creative’ economy (Florida, 2002) the empirical evidence for a decline of alienation stemming from fewer industrial occupations is, at best, uneven (Archibald, 2009).

However, and to repeat, neither product- nor process-alienation, although important, are adequate explanations for alienation’s persistence in the twenty-first century. The fact that many contemporary workers are paid enough (or the market price of the commodity they produce is low enough) to enable them to purchase their outputs makes product-alienation itself a questionable basis on which to explain the longevity of alienation. Moreover, it is hard to deny that at least some people do in fact exercise their creativity and intelligence in the contemporary workplace. In phases of capitalism’s development and in particular sectors, the knowledge and skills of workers have been encouraged (and even relied upon) – from the artisan-based factories of the eighteenth century to software companies in the twenty-first. Typically, however, this dependence on the creativity and intelligence of employees becomes, over time, a costly problem for capitalists precisely because of their need to generate evermore surplus value. It is this dynamic, and resistance to it, that compels owners to capture and codify these intellectual capabilities through the development and use of technologies.¹⁰

Having noted these complex realities, at least some forms of alienation are more likely to be outcomes of something more fundamental. To uncover what this could be, let us dig deeper by returning to Marx’s assertion that capitalists are more profoundly alienated than their workers. Again, for Marx, the core of the matter lies in man’s removal from his self-creative essence. The fact that the capitalist owns property is what most directly distances him from others, nature and himself. Unlike the feudal lord who could not sell his property, the capitalist can. The structural conditions of feudalism compelled the lord to exist in what Marx called a ‘marriage of honour with the land’ (Marx, 1844: 26). The capitalist, on the other hand, owns things that are relatively obtuse. The lord possesses a place where he can live. The capitalist, more abstractly, owns wealth – something that, while often intangible, is always fungible. Quite unlike the feudal past, in bourgeois society personal relationships between people and property cease while ‘the domination dead matter over man’ becomes the norm (*ibid.*).

9 Of course the general decline of unions and the diminishing power of organized labour have facilitated these more tenuous and stressful conditions.

10 As Braverman (1974) and others have demonstrated (Huws, 2003), this is a core component of the history of management – the history of rationalizing the production process in ways that reduce labour costs and increase the power of capitalists to substitute expensive skills with ‘scientific’ techniques and controlling technologies. There is, indeed, an ongoing political tension that stems from it; one in which capitalism’s growth constantly fosters new creative occupations while also striving to divide mental from manual labour. To repeat, worker resistance to these forces constitutes a core dynamic in the history of labour-management relations specifically and class relations more generally.

Not only is capital the source of the bourgeoisie's power, it also dominates the bourgeoisie. Because, under capitalism, money, rather than personal qualities or traditional customs, gives the individual his status and power, that individual is wholly dependent on it. In this sense, according to Marx, the capitalist is not primarily a human being who intentionally seeks to control and exploit workers using capital. Instead, capital (or 'the machine' as Fromm puts it) itself rules. To quote Marx hypothesizing the existential reality of the capitalist, 'I am bad, dishonest, unscrupulous, stupid; but money is honored, and hence its possessor. ... Does not my money, therefore, transform all my incapacities into their contrary?' (Marx, 1844: 60).

Because capital takes on faux human qualities, the bourgeois individual is not compelled to confront his alienation. The worker, on the other hand, has no such ability. Thus, to repeat, proletarians experience their alienation directly. Without the power of capital to mask this state, the worker has no means of self-delusion. It is precisely this that furnishes the proletarian with the possibility of recognizing and prospectively overcoming her alienation.

Alienation and technology

In capitalist society people are dominated by a thing – capital. Not only does capital constitute the primary medium of social intercourse, it both empowers and disempowers. This is not to say that capital itself possesses this power. Instead, capital constitutes a form of exchange involving living, breathing human beings – it is, in fact, a process through which money and use values are converted, through labour, into surplus value. Machines and technologies are core components of this process as, typically, the capitalist puts his money to use by converting it to capital, and machines and technologies are used by workers to do this.

If, as discussed above, neither product- nor process-alienation are at the heart of the general condition of alienation, what is its fundamental basis? The answer, for Marx, is still to be found in the production process (a process involving four interrelated moments – production, distribution, exchange and consumption). This entails the need to exploit labour – the need to get more for less out of the people employed in one or more aspects of the process. For the proletarian, despite the rights and freedoms associated with the wage labour contract, resisting this exploitation has been the source of ongoing class conflict (indeed, this resistance has compelled capital's generation and application of evermore sophisticated technologies).

It is precisely this ascent of 'dead' labour and its implications for the 'living' that Marx believed propelled capitalism's tendency to dehumanize workers, making them into little more than appendages of the techniques and technologies applied in the production process. In effect, capitalism's compulsion to generate surplus value is what compels capitalists to treat workers as if they are machines or things. People, as a result, become tools of capital. As G.A. Cohen explains,

The craftsman wields a tool. The individual worker cannot be said to wield a machine, for the machine of modern industry cannot be wielded... [T]he machine wields the worker, since he [Marx] conceives him as placed at its disposal, to be pushed and pulled. A machine in operation is

a system in motion and the man is what is moved. But this makes it impossible to characterize the worker as a machine ... The machine relates to the worker as the craftsman relates to his tool... (Cohen, 1968: 221, emphasis in original)

Cohen implicitly disavows the notion that alienation stems from the worker's use of machinery and technology. In reality, the use of everything from knitting needles to computers to a pencil and paper in many instances may further the worker's realization of her self-creative essence. Rather than humanity's essence being denied as a result of using technology, a person's essence is lost when she becomes merely a tool. To quote Marx directly: 'Every kind of capitalist production, in so far as it is not only a labour-process, but also a process of creating surplus-value, has this in common, that it is not the workman that employs the instruments of labour, but the instruments of labour that employ the workman' (Marx, 1887: 398-99).

Now that Marx's theorization of alienation has been distilled, I return to prosumption to examine whether or not today's digital technologies are being used to, in effect, liberate people from their dehumanized roles as tools in the production process.

Prosumption, production and class

To assess contemporary prosumption in light of its implications for alienation, we need to modify one aspect of Marx's analysis. Unlike nineteenth century England, the populations of most twenty-first century capitalist societies are not always identifiable in straightforward bourgeois/proletarian terms. Significant numbers of people now are employed in so-called 'non-productive' occupations, innumerable workers own shares of corporations (even those they work for), and some aspire to self-employment using computers and other digital technologies as their individually-owned means of production. Given this contemporary labour force – characterized as it is by ambiguities and potential contradictions – to proceed with a Marxist analysis of alienation and prosumption we need to re-frame class itself in a way that reflects these developments.¹¹ To do this, it is useful to reiterate Marx's emphasis on the fact that production is a process involving four interrelated moments: production, distribution, exchange and consumption.

One of the most attractive traits of class (and certainly one of the reasons some find it troublesome) is its flexibility. As David McLellan observes, 'Marx has many criteria for the application of the term 'class' and not all of them apply all the time. The two chief criteria are relationship to the prevailing mode of production and a group's consciousness of itself as a class with its attendant political organization' (McLellan, 1980: 182). Yet the concept of class reflects the essence of Marx's analysis – it is the

11 On the other hand, despite these complexities, there is nothing terribly new in twenty-first capitalism that Marx did not anticipate. In the nineteenth century, of course, class relations entailed more than just the bourgeoisie and proletariat; small numbers of workers escaped their proletarian positions; technologies, techniques and machines of all kinds were used by independent workers or petit bourgeois businessmen; and numerous forms of 'non-productive' (yet, for the production *process*, nevertheless essential) forms of labour existed. What has substantively changed, however, is the scale, speed and complexity of capitalism's underlying dynamics, locally, nationally and globally.

‘place’ in which the material conditions of historical development are linked to the thoughts and actions of human beings. With Marx, the motor of historical change lies specifically in the dynamic drive to increase surplus value and, more generally, in the ongoing contradiction between developing forces and the relations of production. In keeping with the necessarily holistic nature of this approach, and given the importance of all inter-related moments in the production process, I believe that a similarly holistic approach to class – identifying class positions in terms of both production in and the reproduction of capitalist relations – is consistent with Marx’s methodology.

The importance of this broader reading of class becomes apparent as workers, particularly in recent decades, have become more directly burdened with the costs and time pressures associated with both their own reproduction and the reproduction of the production process in toto. The constant drive to ‘re-skill’ workers now, for example, often involves individuals learning, upgrading and paying for these reproduction needs. In the home, what Ursula Huws refers to as ‘consumption work’ has steadily increased also, meaning that the techniques and technologies needed to run a household (and reproduce labour) have been domesticated. Furthermore, a growing number of workers are trying to eek out livings from labour based in their homes, mostly performing jobs that are tenuous and poorly paid. Among this ‘cybertariat’ information and communication technologies (ICTs) constitute, for neoliberal apologists at least, a means of realizing greater ‘career independence’ and perhaps a way forward becoming, potentially, entrepreneurs or commercially recognized programmers, writers or artists. Beyond the spin, the fact is that such pursuits require most to become more (not less) dependent on a network (i.e. ‘the machine’) and an economic system that operates beyond any individual’s control – a network and system that impels those seeking ‘success’ to constantly improve their skills and purchase the latest (often expensive) hardware and software commodities (Huws, 2003: 170).

A growing workforce now labouring online are engaged in prosumption activities that support various components of the production process. Recent evidence demonstrates that those most active – what a recent Forrester Research report calls the Internet’s ‘actual creators’ (defined as those who have posted a blog, updated a web page, or uploaded video within the past month) – constitute the minority (24 percent) (Bernoff, 2009). Among these individuals still fewer are involved in anything remotely progressive or transformative. Most, in fact, are contributing to an expanding range of promotional, entertainment and branding activities.

One widely embraced element of online prosumption is wikis – online sites with content that almost anyone can add to or modify. The largest of these is the online encyclopedia called Wikipedia. With approximately ten million registered English-language users, about 150,000 individuals modify content each month. Although the most commonly cited motivation for contributing is an interest in sharing information, routinely the site is used to promote commercial interests. And while wikis sometimes are portrayed as transcending the instrumental logic of accumulation (rekindling, for some, a pre-capitalist commons or gift economy), the historical dynamics outlined earlier suggest a different future. A profit-making company called Wikia, Inc. thus far has established (or has hosted the prosumption of) specialized wikis on more than 1,500 subjects. According to its CEO, Gil Penchina, the most popular of these concern movie

franchises and video games, all of which generate revenue by linking niche market consumers to corporations, enabling the latter to engage prospective customers, utilize their free labour, and exchange information with them in order to pursue more personalized (i.e. inter-personal and 'viral') marketing strategies (Parfeni, 2009).

A more tangible example – one involving the production of material commodities – is LEGO's Digital Designer software program. It enables online participants to design and build with virtual LEGO bricks. Once submitted, the player/designer is offered their own version of what has been created for a price. Virtual models can also be shared and the advice of other LEGO enthusiasts solicited. On rare occasions LEGO executives adopt a design and manufacture the product for sale in toy stores. In return, the prosumer receives 'design recognition' but not financial compensation (Zwick et al., 2009: 181). In this and other instances, beyond exploiting the intelligence of others and selling LEGO products, the primary objective of the Digital Designer program is marketing – marketing LEGO directly to participants, using them to market LEGO by electronically sharing their designs with friends, and utilizing participant information for future promotions.

Some might argue that such contributions are empowering in that they constitute the engagement of people in creative, productive pursuits. Millions, indeed, take part voluntarily without financial incentives. Yet, for centuries, ideas, cultural representations and design images either have been shared for no compensation or co-opted (simply stolen in the absence of intellectual property rights) by capitalists seeking new products and useful information (Huws, 2003: 140-42). Such creative inputs, whether or not they are remunerated, have always been core components of a production process whose ultimate aim is the realization of surplus values. In this context, both the individual paid a wage and the person providing a corporation with the intellectual labour needed for new designs, marketing strategies and commodity sales share an important commonality: both are exploited. Having recognized this, however, the more salient issue for our analysis of alienation is whether or not these contributions entail the dehumanization of participants as mere tools of the production process.

The prosumer: Capitalist tool or creative worker?

For decades, proponents of prosumption specifically and ICTs more generally have, for the most part, forecast an empowered civil society. With more people engaged in 'immaterial labour' or 'knowledge work', they argue, corporations will lose control of their traditional levers of power. Indeed, the 'smart' firm will consciously empower its employees using ICTs to help them become more productive and creative (Drucker, 1992; Tapscott and Williams, 2006) while, for radical observers, market pressures will compel capitalists to furnish disparately located workers with the tools needed to organize themselves in prospectively revolutionary forms (Negri, 1989).

Little empirical evidence exists to substantiate either of these flattening-of-hierarchy assumptions.¹² In fact numerous studies show quite the opposite: that the ‘information society’ and prosumer-enabling technologies serve powerful interests in their efforts to increase disparities (Rule and Besen, 2007). The main reason for this is that the core structures and media of status quo relations – private property, the wage labour contract, and the price system – remain intact and pervasive. In practice, ICTs have been developed and applied in ways that have widened and deepened the reach of these very institutions.

ICTs, no doubt, have enabled organizations to shed middle-management positions, yet new technologies have also been applied to extend control over production, distribution, exchange and consumption (arguably, neoliberal globalization would not have been possible without these capabilities). Moreover, ICTs are being used to increase the monitoring and surveillance of workers, and to extend corporate control over what and how employees communicate. Globalized companies – from the Gap to McDonald’s to WalMart – now, for example, use technologies to standardize worker performance and interactions.¹³ Independent thought is also neutered through software programs that dominate website and telephone communications. As one study of these developments concludes, ‘the net effect on the intellectual content’ of information economy activities ‘is surely negative’ (*ibid.*: 25).

From a Marxist perspective, these developments are perfectly rational – capital, after all, is compelled to seek profits (through the realization of surplus values) by using machines (including ICTs) to manage the division of labour in all facets of the production process. This, historically, has implied the elaboration of hierarchical tendencies, involving the development of all kinds of specializations. While this process is cyclical, in that the early stages of an industry may entail a period of relative autonomy and creativity for skilled and creative workers, the competitive and systemic dynamics driving market economies repeatedly compel corporations to systematize and codify these labour inputs (Huws and Dahlmann, 2009).¹⁴ Over the *longue durée*,

12 Despite empirical evidence that capital historically encourages creativity but then systemizes and codifies it through technologies and management, Hardt and Negri’s recent book, *Commonwealth* (2009), repeats the argument that ‘social hierarchies is [sic] a fetter to productivity’ (p. 148). According to recent research conducted for the European Union, even in organizations where tacit forms of knowledge and creativity are deemed to be beneficial, the trend is ‘towards further rationalisation, standardisation and knowledge codification through the introduction of bureaucratic processes or knowledge codifying technologies’ (Ramioul and De Vroom, 2009: 85-6). The reason, others postulate (Huws and Dahlmann, 2009), is that the innovation and commodification process, under capitalism, is never ending. Corporations pursue and governments promote creative, knowledge-based developments followed by their rationalization, management and full exploitation. As knowledge advances alongside the technologies needed to commercialize it, activities once viewed to be fulfilling and even non-alienating are de-skilled, routinized or eliminated (*Ibid.*: 33-4).

13 Most employees today are not even permitted to enter prices into cash registers as scanners and touch screen buttons have been almost universally adopted.

14 Again, this is not to say that worker resistance has been insignificant. Critics of Braverman, among other points, emphasize that workers play an active role in this process – organizing (often successfully) in ways that have produced materially beneficial compromises (Burawoy, 1979; Edwards, 1980). However, over the long-term, such efforts have been countered through the methods discussed herein, using direct coercion (involving state mechanisms), and through cultural co-

therefore, ICTs extend existing divisions between those who conceptualize and those who execute (Braverman, 1974; Huws, 2003; Ramioul, 2007).¹⁵

This pattern is well underway in the computer software industry where Taylorist principles have been applied in the production of code as component tasks are divided among teams of programmers. Not only is this taking place in private companies such as Microsoft, but fragments of open-source software are being developed by disparately located individuals. One of the best known examples of the latter is Linux.

With Linux software, the transparency of its underlying code enables a vast pool of mostly unpaid workers to assess, improve and evolve it. Their suggested revisions are sent to an assembly node where control is exercised over what (if anything) is modified. For logistical and economic reasons, one individual and his colleagues monitor this complex division of labour – Linus Torvalds and the Linux Mark Institute. According to Chopra and Dexter, in the case of Linux,

...the disciplining of labour power is an intricate affair – a delicate mix of cooperation and cooptation. Open source shows such a mixture in its co-optation of the utopian spirit of a free software model, as workers have already bought into the ideology of open source or free software production... While the education and flexibility of open source programmers make it harder for capitalists to control the labour force, control does exist. (Chopra and Dexter, 2005: 10)

Yet the source code or ‘kernel’ of Linux is available to anyone with a copying device. There are no legal restrictions blocking individuals from selling it to others (although this is an unlikely event since it is freely available). Interests can, however, profit from Linux by building and selling services stemming from it (e.g. Redhat). However, because Torvalds formally owns the original code/kernel, new service vendors generally are compelled to cooperate with him in ways that retain and enhance his dominant position.¹⁶

Through such examples¹⁷ and, more importantly, in keeping with the historical dynamics outlined in this paper, we arrive at the following conclusion: prosumption, as an increasingly important component of the capitalist production process, employs workers/consumers as mostly unpaid but, in some cases, creative tools. This fact demonstrates why questions concerning prosumption’s implications for alienation are complex; clearly, both product- and process-alienation are commonplace but the precise nature of the prosumer’s labour varies to such a degree that prosumption, as an exploitative relationship, can also fulfill the essential drive to create.

optation (including ‘standard-of-living’ improvements focusing on consumption). On the latter, see Comor (2008).

15 For a representative example – specifically on how the ‘scientific management’ of professional journalists is being elaborated using Web 2.0 technologies – see Peters (2010).

16 First, Torvalds is free to provide or deny his Institute’s technical support. Second, if others initiate profitable *Linux*-based services, he is free to develop similar ones (probably at lower costs). And, third, rival service providers, if they utilize an independent programmer’s (usually non-remunerated) code, are legally compelled to enter into a licensing agreement with *Linux* directly (Chopra and Dexter, 2005). Barring a radical reform of U.S. and international law, what is known as the *Linux* open source business model (Rivlin, 2003) will likely continue into the foreseeable future.

17 See also Fitzgerald (2006) and Rusovan et al. (2005).

The implications of prosumption

Because, at first blush, the prosumer appears to be aware and in control of her productive and consumptive activities, she appears to be a prospectively transcendent figure. The seemingly free and autonomous prosumer has not, however, forsaken predominant structures and relations, for how could she if private property and contract relations remain entrenched institutions, both online and off? Moreover, the prosumer's dependency on the corporations that own, design and run the essential infrastructures through which people work and consume leaves little room for genuinely autonomous development. For the overwhelming majority – even those who possess the knowledge to write code and create software – the layers of complex expertise required to re-structure (let alone re-build) the means through which digital prosumption is practiced are (almost) beyond comprehension.¹⁸

Like the owner whose capital facilitates an ersatz humanity, we might speculate that the prosumer – often ambiguously located in terms of her class position – also may use technology to (paradoxically) distance herself from her essence. For others, probably the minority who have the financial and intellectual means to pursue their creative potentials, some forms of prosumption may be as liberating as Toffler anticipated. For these fortunate individuals digital technologies could help them transcend the status of most: rather than being tools of 'the machine', their exceptional capabilities might enable them to use ICTs as tools to redress alienation.¹⁹

But again, we should be cautious. The ongoing predominance of exchange relations (involving the commodification of both use values and human labour) 'depends on actors repressing consciousness of the socialness of their act' (Morris, 2001: 88. Emphasis in original). The universal institutionalization of commodified relations (i.e. the commodity form) itself mediates a repressed existence; one in which the mind sees socially constructed relations as 'voluntary' and 'empowering' (which at a lived, concrete level, they are) yet, in some fundamental respects, they are not.

Let me develop this point by elaborating what, precisely, the prosumer is producing. One way to do this is to assess the prosumer's role in co-creating either use or exchange

18 Nevertheless, the prosumer's value for vested interests pursuing all components of the production process will drive forward the ease through which prosumption will be practiced. Just as the keyboard, graphic user interface and pc are now being eclipsed by touchscreen, voice recognition and mobile computing, user-friendly prosumer interfaces will likely become increasingly systematized, making the kinds of creative contributions that are possible more delimited than open ended. Even the marketing aspects of prosumption will involve pre-defined, computer-mediated calculations as the labour inputs of both prosumers and marketers become increasingly automated and systematically processed.

19 More specifically, such privileged individuals have the wealth needed to circumvent the 'unfreedom' of the wage labour contract. They also possess the intellectual capacities needed to facilitate a reflexive understanding of 'reality' in the context of historical structures. Surely these individuals are relatively well positioned to engage in creative, non-alienating forms of prosumption, involving, among other pursuits, their participation in knowledge and/or artistic endeavours. Of course, because many or most of these individuals, by definition, are not working class, it is unlikely that their prosumption will focus on truly *revolutionary* anti-status quo activities.

values – asking if her labour serves the dead world of things (exchange values) or the living world of human needs (use values)?

While all commodities entail both exchange and use values, under capitalism exchange values dominate. For prosumption to constitute a truly new direction in socio-economic relations – to, in effect, prioritize use values – prosumers will need to work primarily for their individual and collective needs directly rather than for exchange. Whether or not what is prosumed benefits the individual or the group, if the purpose and result of prosumer labour is the advancement of exchange values, status quo relations are likely to remain unchanged. To put it more simply, beyond the prosumer's economic exploitation vis-à-vis the production process, if prosumption is a tool to make money existing relations dominated by capital will be perpetuated. On the other hand, if the prosumer creates non-commodified products and services – things crafted primarily for their material, psychological or social usefulness – those who argue that prosumption is a potentially progressive development have an intriguing point.

The difficulty of achieving such potentials can be appreciated once we comprehend how extraordinarily hard it is for alienated individuals to recognize their state of alienation before pursuing activities and relations that enable them to recognize their state of alienation! This structural tendency for alienation to be self-perpetuating goes some way in helping us explain its historical longevity. Furthermore, if we accept Marx's observations about capital's role in forging an ersatz humanity among the bourgeoisie, still more clarity emerges when we recognize that most workers in 'developed' political economies now surround themselves with mediating technologies – TVs, computers, cellphones, automobiles, etc. – that are routinely fetishized as being 'freeing' and 'empowering'. Arguably, such fetishes further obfuscate the individual's recognition of his alienated condition.²⁰

According to Zygmunt Bauman, in our increasingly digital technology-mediated culture, where the alienated are seemingly empowered through their use of ICTs, unprecedented opportunities emerge for people to seek their sense of self-worth by marketing themselves to others as if they are genuinely autonomous, valued members of their communities. In other words, the online prosumer may be motivated to take part as a way of promoting and selling himself to others as yet another commodity (Bauman, 2007). The prosumer, in this sense, may be motivated to re-capture his humanity by being included in a cultural tapestry of exchangeable commodities, even if this only involves posting a blog, attracting Facebook 'friends,' or being credited with a LEGO design.

Directly or indirectly, most contemporary expressions of individualism and one's pursuit of social connection are taking place in ways that elaborate exchange value interests or capital's general reproduction. The individual therefore can be understood

20 To repeat, Archibald (2009) presents empirical evidence of the contemporary predominance of alienation. See also Erikson (1986).

to be prosuming in response to his alienation while, in so doing, deepening this very condition.²¹

Before concluding, it is revealing to note the nature of the ‘communities’ that most prosumers are participating in. According to Jose van Dijck, these overwhelmingly focus on celebrity culture, heavily marketed brands and other relatively apolitical or commodified activities (van Dijck, 2009: 45). Following her definition of a community as a group of people involved in a common cause or interest, surely the predominance of Internet pornography sites constitutes another pervasive hub in which tens of millions share a common interest. As George Ritzer (2007) points out, perhaps the largest segment of online porn is being created by ‘amateurs’ who produce, disseminate and consume much of their own video and photographs. What these and other such communities tell us about the priorities of the heralded prosumer is an area of research that has been (predictably) neglected by the concept’s enthusiasts.

Conclusions

Beyond product- and process-alienation, for Marx, the denial of humanity’s essence is linked primarily to our roles as tools of capital. It is in this context that I have assessed digital forms of prosumption as perpetuating this position or, prospectively, facilitating our liberation from it.

As Toffler theorized, the prosumer’s prospective freedom is the freedom of the individual – the individual as both producer and consumer exercising his capacities in terms of what C.B. Macpherson called ‘proprietary individualism’ (Macpherson, 1962: 3).²² In his high-tech Third Wave, these property owners produce their own goods and services, exchanging them for money and other commodities. It is in this sense that, for Toffler, prosumers will come to consider one another to be equally free as the creators or co-creators of exchangeable things. Clearly, this understanding of prosumption does not transcend capitalism. Instead, it might well be the market system’s apogee.

Marx also idealized individual freedom but in a much different way. Rather than being alienated from her essence as a result of her relation to capital, in a communist (post-capitalist) society ‘the material process of production is stripped of its miserable and antagonistic form’ (Marx, 1857-58: 705-706). As exchange values are supplanted by use values, a ‘free development of individualities’ for the first time becomes possible (*ibid.*: 706). This is not to say that individuals realize their full potentials because they live in an un-structured political economy. Instead, the social form of individualism

21 Presumably, since capitalism and its mediating institutions remain in place, prosumer practices will not be divorced from considerations of efficiency and profitability. This is not to say that efforts to circumvent these conditions, whether pursued consciously or not, will dissipate. Instead, and in contrast to an idealistic and, indeed, voluntaristic understanding of resistance, how people respond to exploitation and alienation is contingent; it involves both the structural parameters of one’s political economic existence and, related to these, the intellectual orientations of those taking part.

22 This idealized individual is ‘the proprietor of his own person or capacities, owing nothing to society for them. The individual [is] seen neither as a moral whole, nor as part of a larger social whole, but as an owner of himself’ (MacPherson, 1962: 3).

itself is not pre-structured; people are free to structure their society as they please, not as it has been cast by capital and its exchange value priorities.

With Marx's view of freedom in mind, I conclude that the prosumer's ascent serves mostly status quo interests. Of course a small number of economically privileged and reflexive individuals potentially will engage in thoughtful, creative forms of prosumption – forms mostly taking place outside the direct parameters of the production process. In this respect, aspects of prosumption are potentially subversive, enabling a minority to relate not primarily as commodities/things but, instead, as creative contributors. Surely, however, barring more general revolutionary developments, digital prosumption is destined to remain part and parcel of capital's production and reproduction priorities with alienated prosumers labouring to satisfy their own possessive individualist needs. To repeat, this dominant form of prosumption is contradictory, particularly when a core motivation for taking part is the quest to redress one's own alienation.

Marx recognized that variously located individuals have a degree of autonomy vis-à-vis the general conditions shaping their alienation, although predominant relations, if not overthrown, render alienation's eradication impossible (Archibald, 2009). That being said, to repeat, a small number, no doubt, will be in the privileged position to apply prosumption to autonomously create. Many more, I anticipate, will be used through prosumption as mere tools of capital. Most, however, are likely to occupy a third and fundamentally contradictory position: prosumption will enable them to act as capital's creative tools.

references

- Archibald, W.P. (2009) 'Marx, globalization and alienation', *Critical Sociology*, 35(2): 151-174.
- Bauman, Z. (2007) *Consuming life*. Polity Press: London.
- Bernoff, J. (2009) 'Social technology growth marches on in 2009'. [<http://blogs.forrester.com/groundswell/2009/08/social-technology-growth-marches-on-in-2009-led-by-social-network-sites.html>]
- Braverman, H. (1974) *Labor and monopoly capital*. New York: Monthly Review Press.
- Burawoy, M. (1979) *Manufacturing consent*. Chicago: University of Chicago Press.
- Chopra, S. and S. Dexter (2005) 'The political economy of open source software'. [<http://www.sci.brooklyn.cuny.edu/~schopra/MMDL.pdf>]
- Cohen, G.A. (1968) 'Bourgeois and proletarians', *Journal of the History of Ideas*, 29(2): 211-230.
- Cohen, G.A. (2000) *Karl Marx's theory of history: A defence*. Princeton: Princeton University Press.
- Comor, E. (2008) *Consumption and the globalization project*. London: Palgrave Macmillan.
- Comor, E. (2011) 'Contextualizing and critiquing the fantastic prosumer', *Critical Sociology*, 37(4).
- Coté, M. and J. Pybus (2008) 'Learning to immaterial labour: MySpace and social networks', *ephemera*, 7(1): 88-106.
- Drucker, P. (1992) *The age of discontinuity*. New Brunswick: Transaction Publishers.
- Edwards, R. (1980) *Contested terrain*. New York: Basic Books.
- Erikson, K. (1986) 'On work and alienation', *American Sociological Review*, 51(1): 1-8.
- Fitzgerald, B. (2006) 'The transformation of open source software', *MIS Quarterly*, 30(3): 587-598.
- Florida, R. (2002) *The rise of the creative Class*. New York: Perseus.
- Fromm, E. (1955) *The sane society*. New York: Rinehart and Winston.

- Gates, B. (2006) 'Beyond business intelligence'. [<http://www.microsoft.com/mscorp/execmail/2006/05-17eim.msp>]
- Hardt, M. and A. Negri (2009) *Commonwealth*. Cambridge, MA: Harvard University Press.
- Huws, U. (2003) *The making of a cybertariat*. New York: Monthly Review Books.
- Huws, U. and S. Dahlmann (2009) 'The current situation, work organisation and restructuring in the knowledge society. WORKS Project. Leuven: HIVA-KUL (Project number: CIT3-CT-2005-006193).
- Lazzarato, M. (2004) 'From capital-labour to capital-life', *ephemera*, 4(3): 187-208.
- Macpherson, C.B. (1962) *The political theory of possessive individualism*. Oxford: Clarendon Press.
- Marx, K. (1846) The German ideology. [<http://www.marxists.org/archive/marx/works/1845/german-ideology/ch01.htm>]
- Marx, K. (1857-58 [1973]) *Grundrisse*. Harmondsworth: Penguin.
- Marx, K. (1887 [1977]) *Capital vol. I*. Moscow: Progress Publishers.
- Marx, K. and F. Engels (1844) *Economic and philosophic manuscripts*. [<http://www.marxists.org/archive/marx/works/1844/manuscripts/preface.htm>]
- McLellan, D. (1980) *The thought of Karl Marx*. London: Macmillan Press.
- Morris, M. (2001) *Rethinking the communicative turn*. Albany: SUNY Press.
- Negri, A (1989) *The politics of subversion*. London: Polity Press.
- Parfeni, L. (2009) 'Wikia sees triple-digit growth in the past year', Softpedia, 9. [<http://news.softpedia.com/news/Wikia-Sees-Triple-Digit-Growth-in-the-Past-Year-121267.shtml>]
- Peters, J.W. (2010) 'In a world of online news, burnout starts younger', The New York Times, July 18 [http://www.nytimes.com/2010/07/19/business/media/19press.html?pagewanted=1&_r=1]
- Ramioul, M. (2007) 'Global restructuring of value chains and the effects on the employment', *Technikfolgenabschätzung - Theorie und Praxis*, 2(16): 13-19.
- Ramioul, M. and B. De Vroom (2009) 'Work organisation and restructuring in the knowledge society', Global Value Chain Restructuring and the Use of Knowledge and Skills, WORKS Project. Leuven: HIVA-KUL (Project number: CIT3-CT-2005-006193).
- Ritzer, G. (2007) 'Production, consumption...prosumption'. [<http://www.georgeritzer.com/docs/The Short Life and Imminent Death of.pdf>]
- Rivlin, G. (2003) 'Leader of the free world', *Wired*, 11(11). [http://www.wired.com/wired/archive/11.11/linus.html?pg=1&topic=&topic_set=]
- Rule, J. and Y. Besen (2007) 'The once and future information society', *Theory and Society*, 37(4): 317-342.
- Rusovan, S., M. Lawford, and D. Parnas (2005) 'Open source software development: future or fad?', in J. Feller et al. (eds) *Perspectives on Free and Open Source Software*. Cambridge: MIT Press.
- Söderberg, J. (2002) 'Copyleft vs copyright: A Marxist critique', *First Monday*, 7(3). [http://131.193.153.231/www/issues/issue7_3/soderberg/index.html]
- Tapscott D. and A. Williams (2006) *Wikinomics*. New York: Penguin.
- Toffler, A. (1980) *The third wave*. New York: Bantam Books.
- van Dijck, J. (2009) 'Users like you?', *Media, Culture & Society*, 31(1): 41-58.
- Zwick, D., S. Bonsu, and A. Darmodt (2009) 'Putting consumers to work', *Journal of Consumer Culture*, 8(2): 163-196.

the author

Edward Comor is Associate Professor at the Faculty of Information and Media Studies, University of Western Ontario. His research focuses on issues and concepts concerning political sociology and political economy. His books include *The Global Political Economy of Communication, Consumption and the Globalization Project and Communication, Commerce and Power*. Comor was the Co-Founder and Inaugural Chair of the International Communication Section of the International Studies Association. He is a member of the Digital Labour Group.
E-mail: ecomor@uwo.ca