Abstract
This piece is a short rejoinder to César Bolaño and Eloy Vieira’s paper The Political Economy of the Internet and related articles (e.g., Comor, Foley, Huws, Reveley, Rigi and Prey, Robinson) that center around the relevance of Marx’s labor theory of value for understanding social media. I argue that Dallas Smythe’s assessment of advertising was made to distinguish his approach from the one by Baran and Sweezy. Smythe developed the idea of capital’s exploitation of the audience at a time when both feminist and anti-imperialist Marxists challenged the orthodox idea that only white factory workers are exploited. The crucial question is how to conceptualize productive labor. This is a theoretical, normative, and political question. A mathematical example shows the importance of the “crowdsourcing” of value-production on Facebook. I also point out parallels of the contemporary debate to the Soviet question of who is a productive or unproductive worker in the Material Product System.

Keywords
social media, Internet, digital labor, Karl Marx, Dallas Smythe, labor theory of value

Dallas Smythe
We live in a phase of capitalist crisis. Since its start in 2008, the academic interest in Marx and Marxist political economy has surged. In the field of Media and Communication Studies, this development has been accompanied by a new interest in discussing, revisiting, developing, revising, or rejecting Dallas Smythe’s notions of audience labor and audience commodification, which shows the topicality of the founding person of the political economy of communication’s thought. One area of

1University of Westminster, London, UK

Corresponding Author:
Christian Fuchs, Faculty of Media, Arts and Design, Communication and Media Research Institute, University of Westminster, Watford Road, Northwick Park, Middlesex HA1 3TP, UK.
Email: christian.fuchs@uti.at
particular importance has in this respect been the development of a political economy of digital and social media. I am happy to respond to César Bolaño and Eloy Vieira’s interesting contribution to this ongoing and evolving debate.

The Internet’s history has been shaped by a contradiction between the logic of the commons and the logic of the commodity. I agree to Bolaño and Vieira’s basic analysis that the strong commercialization of the Internet since the 1990s has been based on the introduction of ever newer forms of online advertising, and commodification, and was accompanied by financialization that has made the digital media industry prone to economic crisis. Where our analyses part is on the point of productive and unproductive labor, that is, when Bolaño and Vieira says that Facebook users are not productive workers, but that rather the “productive labor in SNSs is precisely the work done by employees, engineers, researchers, and much other kind of professionals that produce statistics, interfaces, and algorithms that make possible the constitution of the commodity audience.” It is not entirely clear if he, here, means only Facebook’s paid employees or also the paid employees working for its advertising clients in production and/or sales and advertising departments. The basic logic that he makes is, however, clear: you can only be exploited and therefore what Marx calls a productive worker if you earn a wage.

Marx’s concept of productive labor is complex and also not entirely consistent. In general, he distinguishes between productive labor as (1) any human activity that creates physical or symbolic use-values that satisfy human needs (the human being as productive species-being), (2) human activity that directly contributes to the production of surplus-value and commodities that are sold for accumulating capital, and (3) any work of a collective of human beings (Gesamtarbeiter, collective worker) that contributes to the production of surplus-value and capital. All three concepts matter for a digital labor theory of value (Fuchs 2014a, 2014b).

The orthodox Marxist approach is to argue that only wage-workers in factories are productive workers, which implies that they are the only people exploited in capitalism and the only ones capable of making a revolution. Dallas Smythe (1977) wrote his Blindspot article also as a criticism of this approach that ignored aspects of communication that was merely seen as unimportant, superstructure, or unproductive. This is evident when he says that Baran and Sweezy in an idealist manner reduce advertising to a form of manipulation in the sales effort and when he criticizes them for “rejecting expenses of circulation as unproductive of surplus” (Smythe 1977, 14). Baran and Sweezy developed a Keynesian theory that puts the main focus on monopolies rather than the exploitation of labor. Consequently, they reduce advertising to an unproductive attribute of monopoly—“the very offspring of monopoly capitalism” (Baran and Sweezy 1966, 122) that is one form of “surplus eaters” (Baran and Sweezy 1966, 127) and “merely a form of surplus absorption” (Baran and Sweezy 1966, 141). Smythe (1977, 16) concluded that the “denial of the productivity of advertising is unnecessary and diversionary: a cul-de-sac derived from the pre-monopoly-capitalist stage of development, a dutiful but unsuccessful and inappropriate attempt at reconciliation with Capital.”
Smythe developed the idea of capital’s exploitation of the audience at a time when both feminist and anti-imperialist Marxists challenged the orthodox idea that only white factory workers are exploited. This was evident in discussions about reproductive labor as exploited labor and the emergence of the concept of the new international division of labor (Dalla Costa and James 1972; Eisenstein 1979; Fröbel et al. 1981; Mies 1986; Mies et al. 1988). Capital accumulation requires not only wage-labor but also the exploitation of various forms of colonies that are sources of cheap, underpaid, unpaid, and precarious labor. Smythe added to this discourse the idea that audience commodification is yet another form of outsourcing labor and value-production to an unremunerated sphere from which capital derives profits.

Productive Labor

Bolaño and Vieira’s approach stands in a line with a number of comparable approaches (see, for example, Comor 2014; Foley 2013; Huws 2014; Reveley 2013; Rigi and Prey, forthcoming; Robinson, forthcoming). They postulate that digital labor is not exploited, but that it is a part of the sphere of circulation of capital that only realizes but does not create value and/or that users’ activities are one or several of the following: unproductive, no labor at all, less productive, a consumption of value generated by paid employees in sectors and companies that advertise on social media, the realization of value generated by paid employees of social media corporations, or an expression of a system where what appears as profits are rents derived from the profits of advertisers. These opinions are not new but just a reformulation of Lebowitz’s (1986) criticism of Smythe.

Conceptualizing somebody as unproductive is not only an analytical term, but it is also a slur and quite emotive. Nobody wants to be called unproductive as it carries the connotation of being useless and parasitic. Marx’s concept of productive labor is a political concept aimed at identifying who holds the power and capacity to conduct a revolution against capitalism. Being Marxists, Bolaño, Vieira and I certainly agree that alternatives to Facebook and the capitalist Internet are needed. But who holds the power to bring Facebook’s production process to a standstill and to organize a general online strike or a refusal of labor? If Facebook’s paid employees take industrial action, then the company is not able to add new features to its software but can still sell algorithmically traded targeted ads as long as it has users and ad clients. If the workers in a company’s advertising and public-relations department go on strike, their employer will not be able to develop new large public ad campaigns, but setting up targeted ads on Facebook and other corporate social media is easy and quick and will likely be conducted by managers who oppose the strike. But what happens if Facebook’s 1.19 billion monthly active users (Facebook Security and Exchange Commission [SEC] filings, Form 10-Q, quarterly report March 2013) go on strike or migrate to a non-commercial platform? There will be no new profile-, communication-, network-, usage- and browsing-data available and nobody who clicks on and views targeted ads. This thought experiment shows the power of users in corporate social media’s
production process: they produce a double use-value (data as commodity, sociality) and value in the form of online time, that is, labor time.

One should, however, be clear that digital media capital not only exploits users but also a complex global network of anonymous workers such as slave miners extracting conflict minerals in Africa, hardware assemblers at Foxconn and other companies, software engineers in various parts of the world, low-paid digital freelancers, e-waste workers disassembling computers, and so forth (Fuchs 2014a, 2014b). Therefore, for a revolution that creates a communist Internet, all exploited digital workers of the world have to unite. It is not helpful for a revolutionary theory that wants to inform struggles to play out one realm against another and to label one as productive and the other as less productive or unproductive. Such divisionism only helps the class enemy in arguing that there is no problem and everything can remain as it is because users, as bourgeois ideology claims, are not exploited and enter a fair deal of exchange.

Advertising involves (1) production- and (2) transportation-advertising labor:

1. The employees in advertising agencies and departments who create slogans and images for social media ads produce the symbolic-ideological component of the commodities that specific companies sell. In this production process, they create both value and use-value promises. A use-value promise is an ideological promise associated with the consumption of specific commodities (Haug 1986). These promises are detached from the actual use-value and are therefore a fictitious form of use-value for consumers. Ad agencies and departments create an ideological use-value for capital that aims at helping to sell commodities. For consumers, these commodity ideologies are mere use-value promises.

2. Advertising transport workers do not transport a commodity in physical space from A to B, they rather organize a communication space that allows advertisers to communicate use-value promises to potential customers. Facebook’s users and paid employees are twenty-first-century equivalents of what Marx considered as transport workers in classical industry. They are productive workers whose activities are necessary for “transporting” use-value promises from companies to potential customers.

Soviet Marxism

There is also a historical reason why one should not characterize Facebook users as unproductive or minor productive: Soviet Marxism. In the Soviet Union, the notions of productive and unproductive labor were at the heart of the calculation of national wealth. The Material Product System (MPS) was the equivalent to the calculation of the gross domestic product (GDP). The MPS was introduced under Stalin in the 1920s (Árvay 1994). It only considered physical work in agriculture, industry, construction, transport, and supply, as productive, whereas services, administration, public services, education, culture, and housework were seen as unproductive work that did not contribute to national income but rather consumed it (Noah 1965). Women had especially high employment shares in medicine (physicians, nurses), schools, light industry (e.g.,
textiles), child care, culture, retail, and catering (Katz 1997). The Soviet wage system privileged domains such as heavy industry, construction, energy, metalwork, and mining because the MPS system considered them to contribute strongly to national wealth and productivity (Katz 1997). The feminized employment sectors just mentioned were seen as secondary and unproductive, and thus had lower wage levels. A gender bias was “built into perceptions of productivity” (Katz 1997, 446). The gender division of labor and wages was “hidden behind a screen of officially proclaimed ‘equal participation in the national economy’” (Katz 1997, 446). The reality was that “the Soviet wage-structure . . . was in itself male-biased” (Katz 1997, 446).

The notion of unproductive labor has historically been used for signifying reproductive work, service work, and feminized work as secondary and peripheral. It has thereby functioned as an ideological support mechanism for the discrimination of women. This circumstance should caution us to be careful in whom one analytically characterizes as “unproductive,” that is, not creating surplus-value in the capitalist production process.

**Productive Labor on Facebook**

The Internet is both a machine and a medium, a tool of production and consumption of information in one. The consumer therefore tends to partly become a prosumer. Various political economies meet and collide online: the cultural economy that sells content and is facing various contradictions, the advertising economy that sells users’ data, the access economy that sells access to platforms and information, the service economy that markets and sells non-digital goods and services online, various mixed models, and an alternative economy of the digital commons that challenges commodification.

Value’s substance is labor. Labor time is its measure. Companies use advertising in the circulation process for transforming commodities into money capital. For capital accumulation to work, the production and sale of commodities need therefore to be connected to advertising labor that is organized in space and time.

What about Facebook’s paid employees? They create and update the platform that is an objectification of their work time and which is a fixed, constant capital in the users’ production of data that brings the platform alive. So they are not unproductive, but – just like users – productive workers that, however, produce constant capital as input for users’ labor.

If Facebook exploits both users and employees, there must be a mathematical way of assessing the extent of exploitation. Here is an example calculation. In 2012, Facebook had 4,619 employees and 1.06 billion active users (Facebook SEC filings, Form 10-K, 2012). In August 2012, Facebook users spent on average 7 hours and 46 minutes on the platform (http://mashable.com/2011/09/30/wasting-time-on-facebook/, accessed on March 12, 2014). We can therefore calculate that an average user spent 93.2 hours per year on Facebook. In total, this means $93.2 \times 1.06 \text{ billion} = 98.792 \text{ billion hours of annual Facebook usage time}$. 


From Facebook’s financial reports (SEC filings, Form 10-K, 2012), we know the following data for 2012:

Revenue: 5.089 billion US$
Profit before taxes: 538 million US$
Costs (constant and variable capital, share-based compensations): 4.551 billion US$
Share-based compensations: 1.57 billion US$

According to data, the average working day of Facebook employees is 9–10 hours per week, so we can set it at 9.5 (http://www.quora.com/Facebook-company/What-are-the-average-working-hours-per-day-for-a-Facebook-engineer, accessed on March 12, 2014). This means that in total, Facebook employees worked in 2012 around 10 million hours:

\[4,619 \times 9.5 \times 5 \times 45 \text{ weeks} = 4,619 \times 2,137.5 \text{ hours} = 9,873,112.5 \text{ hours}.\]

What do Facebook employees earn on average? Statistics from glassdoor.com allow an approximation. Glassdoor is a platform, where employees report average salaries and review working conditions. The data in Table 1 are based on reports from \(N = 1,499\) persons. Based on these data, we can estimate that the salary of an average Facebook employee is US$120,675.

### Table 1. An Estimation of Average Wages at Facebook (\(N = 1,499\)).

<table>
<thead>
<tr>
<th>Role</th>
<th>Average Salary (US$)</th>
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<tbody>
<tr>
<td>Software engineer</td>
<td>117,652</td>
</tr>
<tr>
<td>Research scientist</td>
<td>128,996</td>
</tr>
<tr>
<td>Production engineer</td>
<td>126,565</td>
</tr>
<tr>
<td>Product designer</td>
<td>123,460</td>
</tr>
<tr>
<td>Operations engineer</td>
<td>98,789</td>
</tr>
<tr>
<td>Product manager</td>
<td>136,561</td>
</tr>
<tr>
<td>Software engineer</td>
<td>100,100</td>
</tr>
<tr>
<td>Technical program manager</td>
<td>146,063</td>
</tr>
<tr>
<td>Data scientists</td>
<td>124,051</td>
</tr>
<tr>
<td>Engineering manager</td>
<td>155,724</td>
</tr>
<tr>
<td>Senior software engineer</td>
<td>147,144</td>
</tr>
<tr>
<td>User operations analyst</td>
<td>43,518</td>
</tr>
<tr>
<td>Software engineer</td>
<td>145,194</td>
</tr>
<tr>
<td>User interface engineer</td>
<td>115,299</td>
</tr>
<tr>
<td>Software engineering new grad</td>
<td>106,000</td>
</tr>
<tr>
<td>Database engineer</td>
<td>131,500</td>
</tr>
<tr>
<td>Applications operation engineer</td>
<td>104,852</td>
</tr>
<tr>
<td>Average</td>
<td>120,675</td>
</tr>
</tbody>
</table>

We can therefore approximate Facebook’s total 2012 wage costs:

If there are 4,619 employees with an average salary of US$120,675, then average 2012 wage costs are as follows: $4,619 \times \text{US$120,675} = \text{US$557,397,825}.$

The data allow calculating the following shares:

Facebook’s wage share (variable capital) in revenues: 11.0 percent
Facebook’s capital share in revenues (profit + constant capital + share-based compensation): 89.0 percent
Facebook’s profit share in revenues: 10.6 percent
Facebook’s shareholder compensation share in revenues: 34.5 percent
Facebook’s constant capital share in revenues: 43.9 percent

**Total working hours at Facebook:**

- Employees: 9,873,112.5 hours
- Users: 98.792 billion hours
- Total: $9,873,112.5 + 98,792,000,000 = 98,801,873,112.5$

**Number of unpaid working hours at Facebook:**

- 89 percent of employees’ working hours were unpaid: 8,787,070.1 hours
- 100 percent of users’ working hours were unpaid: 98.792 billion hours
- Total unpaid working hours: $98,792,000,000 + 8,787,070.1 = 98,800,787,070.1$
- Total paid working hours: $9,873,112.5 \times 0.11 = 1,086,042.4$
- Rate of exploitation at Facebook in the year 2012: unpaid labor time / paid labor time $= 98,800,787,070.1 \text{ hours} / 1,086,042.4 \text{ hours} = 90,973.$

Figures 1 and 2 show the development of the wage share, $w_s$, and the profit share, $p_s$, in the United States. These are the shares of wages and profits in the national wealth, respectively. They were calculated as $p_s = \text{net operating surplus (NOS) / GDP;}$ $w_s = \text{compensation of employees (COE) / GDP.}$ One can see a decrease of the wage share during the past few decades and an increase of the profit share, that is, due to capital’s class struggle against the working class that resulted in wage repression.

The U.S. economy-wide profit share was 24.8 percent in 2012 and the wage share 53.1 percent.

As shown, I estimated the company-level equivalents of the profit share and the wage share for Facebook: Facebook’s wage share was 11.0 percent in 2012 and its profit share 45.1 percent (calculated as the sum of actual profits and paid-out shareholder compensation). How can Facebook achieve such a high profit share? By keeping its wage costs low. One feasible explanation is that Facebook’s wage share is so low and its profit share so high because unpaid labor is a huge source of social media’s value.
 Whereas the capital accumulation mechanism in the traditional information economy that sells information or information technology as commodity is to set the prices relatively high above values and investment costs, in the social media economy, the basic strategy is to “crowdsource” value-production to unpaid users. Exploiting unpaid
users allows keeping the relative wage costs way beyond the economy-wide wage share, which again allows achieving a high profit share of above 45.1 percent. A company does, however, not need a capital growth of more than 40 percent to operate and survive, so Facebook pays high compensations to its shareholders. Its main shareholders are its directors such as Mark Zuckerberg who in 2013 owned 66.5 percent of Facebook’s class B stock and held 54.7 percent of the total voting power (SEC filings, proxy statement 2013).

At age thirty, in 2014, Mark Zuckerberg was the world’s twenty-first richest person (Forbes: The World’s Billionaires 2014, http://www.forbes.com/billionaires/list/, accessed on March 12, 2014), with a wealth of US$28.5 billion. The exploitation of users is at the heart of Facebook’s growing wealth. Crowdsourcing has not, as claimed by the inventor of this term, brought “greater democratization in commerce” (Howe 2008, 14) but is a capitalistically smart mechanism of value-creation that intensifies exploitation.

Communism 2.0

If users and scholars do not understand how social media exploitation works, they end up justifying rather than questioning capitalism. César Bolaño and Eloy Vieira’s paper is an important contribution to the digital labor debate, on which we can partly agree and partly productively disagree. In the end, the maxim is as follows:

Digital workers and scholars of the world unite against capitalism!

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Author Biography

Christian Fuchs is a professor of social media at the University of Westminster. He is an editor of tripleC: Communication, Capitalism & Critique (http://www.triple-c.at) and author of monographs such as Social Media: A Critical Introduction (2014), Digital Labour and Karl Marx (2014), OccupyMedia! The Occupy Movement and Social Media in Crisis Capitalism (2014), Foundations of Critical Media and Information Studies (2011), and Internet and Society: Social Theory in the Information Age (2008). @fuchschristian, http://fuchs.uti.at