

Ralf Krämer is a social scientist and trade union secretary at the Federal Executive Board of the United Services Union in Germany ver.di in the field of economic policy.

This text was published in German Magazine Marxist Renewal Z No. 110 June 2017  
<http://www.zeitschrift-marxistische-erneuerung.de/article/3172.wertschoepfung-und-mehrwertaneignung-in-der-digitalen-oekonomie.html>

Ralf Krämer

## **Value creation and appropriation of surplus value in the digital economy**

### **On the criticism of Christian Fuchs' theory of "productive consumption"**

In Z 107 Christian Fuchs has presented a critique of Paul Mason's book "Postcapitalism", with which I agree to a large extent. In the digitalization hype of recent years, various ideologies that were already en vogue in the new economy and high-tech hype at the end of the 1990s are apparently being reactivated and further developed.<sup>1</sup> In Z 104 and 105, Fuchs had already presented elements of a "theory formation and analysis of digital labour", which contains many interesting and important explanations of the internationalized capitalist production of digital hardware and software. However, his views on the political economy of Internet companies, and especially on the supposed creation of value through "online prosumption", i.e. the consideration of the consumer use of digital media as supposedly value-adding digital labour, as presented in these and other texts, require Marxist political-economic criticism.

Fuchs criticizes (in Z 107, p. 102ff.) the special Marx reading of "autonomous Marxism" on which Mason bases himself. This interprets passages from Marx's Grundrissen zur Kritik der politischen Ökonomie, the "machine fragment", as if the law of values were suspended in the transition to "cognitive capitalism". In contrast, Fuchs emphasises that in the information economy, too, labour and the exploitation of labourers are the basis of value creation and surplus value or profit. I totally agree. Apparently, capitalist commodity production continues to exist and dominate in this country and worldwide, and the value and exploitation of dependent labor is fundamental to it.<sup>2</sup>

Fuchs then refers to four aspects: 1) The production of software and other information goods requires a considerable and growing amount of (employment) labour. 2. from an economic point of view, the internet companies are essentially advertising agencies and this is based on the time in which the customers pay attention to them. 3. the 'digital' industry is based on an intensive international division of labour with high exploitation rates. 4. the digital world of labour contains countless forms of irregular, unpaid, precarious and

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1 See Ralf Krämer, Informationsrente - zur politischen Ökonomie des Informationskapitalismus, in: Das Argument Nr. 248, 5/6 2002

2 See also Ralf Krämer, Kapitalismus verstehen. Einführung in die politische Ökonomie der Gegenwart (Understanding Capitalism, Introduction to the Political Economy of the Present), Hamburg 2015, p. 175f. (Download in full text: <https://www.rosalux.de/publikation/id/4096/>), and for in-depth criticism of Paul Mason: Rainer Fischbach, Die schöne Utopie, Cologne 2017

outsourced labour. This includes unpaid labour in the use of digital goods. He describes this as "productive consumption that produces value" (Z 107, p. 105).

At point 4. all sorts of things get mixed up now. Precarious and other gainful employment in the production of digital commodities is economically quite different from the unpaid activities involved in the use of digital goods. Even if these activities are labour in the general sense, i.e. purposeful activity to achieve a previously considered result, they are not productive, value-creating labour in the economic sense. This is all the more true when it is used for mere consumption for playful, communicative or other purposes, even if at the same time data traces are produced which an Internet company uses for its business (see below).

### **Value creation and productive labour**

We have to be precise here and look closely at the economic character of the various activities. Value-creating labour in the economic, capitalist sense is labour that produces commodities (which can also be commercial services). The sale of these commodities and thus the realization of the values produced by labor in money is the primary source of income. Under capitalist production conditions, the proceeds of the sale go to the owners of the means of production, who use them to pay the wages of the employed labour force. The surplus remaining after deduction of intermediate consumption (expenditure on circulating constant capital) and the depreciation of fixed assets (consumption of fixed constant capital) is the surplus value appropriated by the capital.

This has not only been theoretically explained by Marx and others, it is also reflected in the operational accounting system and the national accounts - mystified, because there the fixed capital, i.e. buildings, equipment and intellectual property, is also regarded as a source of value creation<sup>3</sup>. Total (net) value added is created in the production of goods and services, is primarily distributed among wages and corporate and investment income, and is used for private or public consumption or investment. Real economic processes that are realized or valued in monetary terms are considered, because this is what ultimately matters in the capitalist mode of production. The totals of the values produced, distributed and used are necessarily identical in the balance sheet. Valuation-related increases in assets do not increase the sum of the values in the real economic cycle. When increases in the value of fictitious capital or fixed assets are realised by selling them in money, this does not express value creation, but means redistribution and appropriation of value produced elsewhere through labour.

In this economic sense, I agree that precarious or outsourced labour, which is necessary for the production of digital commodities, is productive labour. The more of this labour is socially necessary and the higher the productivity of this labour, the higher the value and thus the average price to be realized for digital commodities. A part of this value added, which is determined by the degree of exploitation of labour, accrues to the workers as

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<sup>3</sup> Wage labor paid in the public sector and from compulsory contributions rather than sales proceeds is also considered there to be value-adding, so the concept is broader than that of Marx. Also otherwise the representation here is somewhat simplified.

compensation for the gainful employment they perform, either in the form of wages or as remuneration for formally independent but often economically dependent labour. In my view, it makes sense to consider wage labour performed for capital in the advertising sector and other service sectors as capitalistically productive, because it increases the realisable value of commodities and thus proves to be "socially necessary".

This is not the case with the activities mentioned by Fuchs as "productive consumption" or "shadow labour". Fuchs himself points out that there are also those outside the Internet and the digital economy. Self-service and do-it-yourself activities, do-it-yourself, DIY and all housework ultimately have the same economic character as online banking, online ordering, etc. They create use value for the users, but not commodities and thus no economic value. However, Fuchs sees this in a very special way: "It replaces paid labour with precarious and unpaid labour and thus helps companies to increase profits by reducing their wage costs. (Z 107, P 105)

But economically, this is something quite different from being value and surplus value adding labour. Self-service and do-it-yourself and all types of voluntarily unpaid labour mean not only lower labour costs than in the production of the corresponding goods and services as commodities, but also lower sales revenues and value added, because the kits and self-service goods are bought because they are cheaper. Whether the profits achieved are higher or lower is uncertain in detail and a question of the competitive conditions. All in all, the result of more own work is that less productive gainful employment is used in these branches of the economy and the products have and realize less value than if they had been finished and sold with service.

However, wage earners can spend the money saved on cheaper do-it-yourself and self-service goods on other commodities, which sets the conditions for higher value and surplus value realization there, with other capitalists in other industries. Prepared dishes and fast food or coffee to go do not displace the occasional visit to a restaurant, but rather the domestic cooking itself, they expand the gastronomy market overall. Thus, above all, the proportions of the various economic sectors and gainful employment are changing. If, on the other hand, the consumption of capitalistically produced commodities were to be replaced more and more by own work, this would not lead to higher profits, but on the contrary to massive revenue declines and overproduction crises and thus also to falling mass incomes and a progressive shrinking process of value creation and profits. In reality, this is not the case.

### **Tendencies of the capitalist mode of production**

Just as inappropriate as the view of digital "prosumers" as value-creating labourers is the view of domestic or reproductive labour as productive in an economic sense, which Fuchs addresses and which is widespread in parts of feminist theory. There is a fuzzy use of terms here. These works are productive in the general sense that they create useful products and results, goods or services with use value. They are even indispensable for the social life process. But the question of their economic productivity under capitalist conditions is another, is whether they create additional value and surplus value, ultimately in terms of realized money, for capital.

Reproductive work in the private household is only indirectly included in the value of labour-power, however, in so far as it has an impact on the level of the money wage that has to be paid to finance the reproduction costs of wage labourers. They reduce the necessary wage, as long as goods and services produced in the household itself do not have to be purchased. On the other hand, they increase it to the extent that the wage must also be sufficient to provide for family members who are not employed or only part-time. Reproductive work in one's own household, however, does not produce commodities<sup>4</sup> or generate income and thus does not create value or surplus value.

The tendency of capitalist production is directed towards producing and appropriating more and more surplus value. It is therefore not intended to expand unpaid reproductive work, but on the contrary to increase the proportion of the working population in the population and the most productive gainful employment possible in relation to total employment. This is particularly true if this population is qualified, which was also associated with costs, and can then make a much higher contribution to the production of value and surplus value in gainful employment than it could otherwise perhaps save on labour reproduction costs by working in private households. In addition, increasing labour supply prevents wages from rising due to shortages. For this reason, capital supports policies to increase female employment, even if this involves increasing social expenditure on educational, training and care facilities. However, it also tries to privatize these institutions and transform them into places of capitalist production of surplus value.

It is basically a self-contradictory movement of the capitalist mode of production. In competition, individual capitals are forced to reduce their costs as much as possible in order to increase or maintain their profits. On the one hand, capital therefore attempts to save paid labour and pass on as many costs as possible, to appropriate the use value of goods and services without payment and to externalise negative effects. Be it nature, wage earners or other people who do not get paid for it, at home or abroad, globally. For example, it indirectly uses the services of individuals, still predominantly women, who work in private households and families and provide for the reproduction of the labour force.

On the other hand, reducing costs does not increase the sum of the total value and surplus value produced. In the long run, an increase in total economic surplus value production can only be achieved if capitalist value creation, i.e. the extent and productivity of the wage labour used, is expanded. The capitalist enterprises want to accumulate and grow, expand their production and thus profits, open up new business areas and markets. Capitalist mode of production therefore has a tendency towards growth and "land grabbing", capitalist development and penetration of ever new regions and fields of activity, and the inclusion of ever more people in capitalist production and value chains, in wage labour or dependent and exploited independent labour.<sup>5</sup>

The contradictory overall process of, on the one hand, the constant release of labour, primarily through increasing labour productivity through improved production methods and

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4 Nor does it produce the special commodity labour-power, which is tied to the living person, but it produces services which are used for the reproduction of labour-power.

5 Cf. also Ralf Krämer, *Kapitalismus verstehen*, p. 70f.

technology, through to the automation of processes and externalisation, and, on the other hand, accumulation, growth and expansion of capitalist production and employment, is taking place in an unplanned and crisis-ridden manner. Basically, under capitalism there is unemployment and social exclusion and division on the one hand, and the tendency towards growth and increasing employment on the other. Which tendency predominates at the moment depends on the economic and social situation and dynamics, not on technical development. In the longer term, there has been and still is an expansion of capitalist value creation and employment, which is unlikely to be stopped by the new stage of digitisation.<sup>6</sup>

### **Where do the huge profits of the Internet companies come from?**

But what are the real massive profits of the big transnational internet companies Apple, Amazon, Microsoft, Google, Facebook and Co. based on? With the exception of Amazon, which as a trading company has by far the most employees, mostly in its mail order centres, and which has so far relied primarily on expansion rather than maximum profits, these profits are several times higher than can be explained by the value creation and exploitation of the labour force employed by these companies. Not even if they are considered to be particularly highly skilled and productive, and if the exploitation of outsourced labour and of the employees of suppliers whose surplus value production is partly appropriated by these groups is included.<sup>7</sup>

Fuchs explains this on the one hand with the aforementioned "shadow labour" in "productive consumption", which, as described, is not convincing. On the other hand, with particular reference to Google and Facebook and other social media, he points out that the mere attention of users when visiting these websites should be regarded as unpaid working time. These corporations used "a business model based on transforming user data (content, profiles, social networks and online behavior) into commodities. Here, users would perform "digital labour" through their use of the platforms and produce "data commodities" which are sold by the Internet platforms to advertisers and form the basis for their profits. (Z 104, p. 80f.)

A more precise observation is also required here. First of all, we agree with the analysis that Google, Facebook and Co. are to be regarded economically as advertising companies. More than 90 percent of their sales and profits are made with advertising, especially personalized advertising, in which the aforementioned user data is used by the algorithms of the platforms to optimize the advertising effect. But the commodities that these companies sell to paying customers are advertising, a service that they provide on or through their platforms. They do not sell the user data as commodities. And even if they did, the value of these data and the price that would be obtained for their sale or the sale of rights to use

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6 Cf. Ralf Krämer, Die Roboter kommen, die Arbeit geht?, in: Journal Luxemburg 3/2015, pp. 30 - 37, <http://www.zeitschrift-luxemburg.de/die-roboter-kommen-die-arbeit-geht/>

7 On Internet companies and their economy, see Ulrich Dolata, Apple, Amazon, Google, Facebook, Microsoft, SOI Discussion Paper 2017-01 <http://www.uni-stuttgart.de/soz/oi/publikationen/Dolata.2017.Apple.Amazon.Google.Facebook.Microsoft.pdf>, and his essay in Z 108.

them would not be determined by the "working time" that users have spent "producing" these data.

The users enter data and leave more or less extensive additional data traces through their activities on the platforms. However, network activity is not work directed towards the production of data traces that are then skimmed off, but these are merely side effects, to a certain extent external effects of their activity, regardless of whether this use takes place in the context of production processes or is of a purely consuming or playful nature. Even if, for example, searching and ordering on the Internet were to be considered labour (just as shopping in department stores can be considered labour rather than leisure and pleasure), the motive and intended result of the work is finding and buying, not the data traces associated with it. This labour is considered only as concrete for the users themselves, not as abstract and value-adding labour for others.

There are also analogies in the non-digital world for this. For example, users of electronic equipment do not create value if they dispose of them in a yellow bin or at a recycling yard, where recyclable materials are obtained. The consumers of drinks in returnable bottles do not do productive labour by leaving the empty bottles somewhere where they are collected by bottle collectors and delivered for money. And if biogas and fertilizer are obtained from human excrement in appropriate plants, the production of this excrement does not become productive labour.

In these examples, the users would only create value if they themselves processed the waste or by-products they left behind and sold the recovered materials. Or would collect and sell their data traces themselves. However, the value of the individual data would be zero or marginal, and even now the users are not paid for their data. You may be given the right to use the platform free of charge and maybe even some vouchers or similar benefits. However, these are to be regarded as measures of advertising and customer loyalty for the platforms, and not at all as remuneration.

User data only become economically relevant when it involves data on very large or very specific numbers of users, which can then be addressed on this basis with targeted advertising. It is only through the networking and processing and utilization of the data on the platform, which must be produced and made available accordingly, that the user data acquire utility value for the advertising customers and potential "data commodities" are produced. The platform also provides the basis for the customers to increase the use value of the platform themselves through their activities, which depends largely on networking as many people and activities as possible.

However, it should be noted that the use value, the usefulness of commodities does not determine their economic value. Commodities must have a use value in order to have a value and be considered commodities at all, but there is no quantitative relationship to value. Rather, it is determined by the abstract labor necessary for its production or, in capitalistically modified form, as the production price by the cost price and the profit margin apportioned to it. Or, in the case of ownership or use rights used as capital, their value is

determined as that of a "notional capital" based on the expected profits in relation to the average return.<sup>8</sup>

However, the abstract labour that has been necessary to produce the relevant data and the platforms and thus their production-determined value, is not the labour of the users, but rather the programming and support and promotion and dissemination of the platform and its use, organized by the company in gainful employment or even purchased. Also, the value of the user data does not arise from the activities of the users, but from the processing organized by the platform company, which is done automatically by algorithms, but which required a lot of labour to build.

The expenses for the development and establishment of such platforms and networks are considerable and in the initial period regularly exceed the revenues considerably. So companies make start-up losses, and many do not manage to become sufficiently large and profitable, and are eventually sold or closed down at a huge loss, devaluing the labour done and the capital invested. However, in the case of companies like Google, Facebook and others who have "made it" and then make very large profits, this cannot be explained by the "normal" exploitation of workers and the "normal" profit on the capital advanced. But also not with a supposed value-adding labour in the form of the use of social media.

### **Information rents and distribution issues**

Indeed, the sometimes exorbitant profits of these groups are based on the monopolistic position they have achieved in their market segment. If you want to reach potential customers in specific areas and on a large scale, you will find the most effective and far-reaching possibilities here. In 2015, Google alone accounted for about half of Internet advertising revenues in the USA, which in turn accounted for one third of all advertising revenues, and the trend is rising.<sup>9</sup> An essential basis for this is their monopoly ownership of the underlying intellectual property rights in the programming and algorithms of the platforms. These make it difficult to establish competitive offers and allow monopolistic pricing and the appropriation of huge information rents. Once the platforms are up and running and established, a lot of effort is still required to maintain and develop them, but the marginal costs of additional advertising are minimal in relation to the income from that advertising.

Economic rents can generally be regarded as payments for the use of production conditions or monopolies that are not arbitrarily reproducible, which accrue to their owners. In value theory, they represent an appropriation or redistribution of social value added from other economic sectors in favour of the owners of the property rights underlying rent income. Economically, the most significant here are still ground rents, which account for a significant proportion of rents and leases. Rents from the extraction of raw materials, most importantly crude oil, also belong here. But also the profits appropriated due to monopolistic intellectual property rights can be analysed as rents, as information rents.

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<sup>8</sup> See Karl Marx: Das Kapital III, MEW 25, p. 482ff. and Ralf Krämer, Kapitalismus verstehen, p. 118f.

<sup>9</sup> Cf. Ulrich Dolata, Apple, Amazon, Google, Facebook, Microsoft, SOI Discussion Paper 2017-01, S. 8

Value creation is ultimately the production of claims to quantitatively determined shares of the wealth that society can buy in the form of commodities (including services) through labour. Strictly to be distinguished from this is the appropriation of other acquired values on the basis of the exclusive right of ownership of necessary production or living conditions. In this sense, information rent can be critically analysed as another basic form of revenue and intellectual property as another primary source of income and basis for surplus value appropriation in capitalism. The "trinitarian formula" "capital - profit (entrepreneurial profit plus interest), land – ground rent, labour - wage" (MEW 25, 822), which was presented and criticized by Marx, would then have to be supplemented by a fourth link: intellectual property - information rent. However, it is usually not possible to break down the profits generated by a company or sector precisely and to determine the proportion of information rents, as they are often generated by companies that also own the intellectual property rights.<sup>10</sup> There is also hardly any statistical data on this.

Information rents and monopoly profits, understood here as particularly high profits due to a dominant market position (which is usually not a monopoly in the strict sense), mean a particularly high appropriation of surplus value, but not that this is based on a correspondingly high level of value creation in the company or sector. This is the appropriation of value produced in other sectors of the economy or even in other countries and redistributed to the Internet corporations. The underlying value creation by labour takes place mainly outside the digital economy, and the customers of the groups that buy their products (advertising, software, hardware, intermediary services, etc.) are mainly companies from other sectors or private individuals. The bottom line is that the exorbitant profits of Internet corporations and information rents generally mean correspondingly lower profits of other companies and lower real wages. They are thus also an increasingly important mechanism of international redistribution in favour of the capitalist metropolises and especially the USA.

It is exclusively the economic value added that is realized in money and the income that arises from it that is the source of all state-organized redistribution. It must therefore also be clear that the profits of the digital and Internet economy, as well as the profits from the use of robots, artificial intelligence, automated systems of all kinds or information and communication technology, cannot constitute an additional source of financing independent of these. This applies all the more to the supposed "value creation" from "productive consumption". Even in an economy of the future, which will be much more strongly characterised by digitisation and automation than today, living labour will remain the only source of added value in the economic process, gainful employment, which is a social process and not a material process.

In the future, too, there will be no other source of social benefits, be it a pension or a basic income, than the national income generated in the social labour process and realised in money, which is distributed between wages on the one hand and profits and property income on the other. The entire area of information and communication services, media, advertising, etc. accounts for perhaps five percent of this in terms of volume. In the future,

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10 Cf. Ralf Krämer, Informationsrente, in: Historical-Critical Dictionary of Marxism, Volume 6/II

too, the primary task of distribution policy will be to maintain and, if possible, increase the share of wages. The idea that if this does not succeed in the class struggle, this could be compensated for by a correspondingly massive increase in taxation of profits and assets, or even that a comfortable basic income for all could be financed from it, completely misses the economic and distributional realities.<sup>11</sup> Fuchs rightly criticizes Mason for completely overestimating the economic importance of the IT industry, but here he himself does not seem to have a realistic picture of the overall economic proportions and distributional relationships.

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11 Cf. Ralf Krämer, "Bedingungsloses Grundeinkommen – eine Alternative für Gewerkschaften?", in: Gegenblende 37/2016 <http://gegenblende.dgb.de/37-2016/++co++c903ab94-20bd-11e6-8774-52540088cada>