

History and Class Consciousness 2.0: Georg Lukács in the Age of Digital Capitalism and Big Data

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Abstract

This paper discusses the relevance of Georg Lukács' 1923 book *History and Class Consciousness* in the context of digital capitalism. It does so by analysing how Lukács' concepts of the dialectic of subject and object, ideology, reification, reified consciousness matter today in the context of big data and digital capitalism. The essay shows that *History and Class Consciousness'* critique of reification, ideology, and reified consciousness remains highly topical in the age of digital capitalism and big data. Lukács' analysis allows us to critically analyse how social media, big data, and various other Internet technologies are used as tools of reification. At the same time, Lukács reminds us that only human praxis can establish alternatives.

Keywords: *History and Class Consciousness*, Georg Lukács, digital capitalism, big data, ideology, reification, reified consciousness, commodity fetishism, Internet, social media, digital positivism, digital determinism

1. Introduction

This essay asks: What elements of Georg Lukács' *History and Class Consciousness* can inform the foundations of a critical theory of communication in the age of digital capitalism? To provide an answer, the article proceeds in the following manner: Section 2 analyses ideology and reified consciousness. Section 3 draws attention to the relationship of journalism and reification. Section 4 discusses the reification of communication technologies. Some conclusions are drawn in section 5. Based on a reading of Lukács, the paper wants to show Lukács' analysis can be used for critically analysing contemporary forms of digital communication.

Rüdiger Dannemann (2017) argues that we today "require an updating of Lukács' phenomenology of reification" in "our brave new digital world" that considers contemporary reification's "peculiar rationality and irrationality", "technical dimensions and human particularity". The essay at hand understands itself as a contribution to this task.

2. Ideology and reified consciousness

Reification

Reification is *HCC*'s key category. With it, Lukács describes and analyses capitalism's structural effects on human subjectivity and especially consciousness. The notion of reification derives from Marx's concept of commodity fetishism.

"The essence of commodity-structure" is that "a relation between people takes on the character of a thing and thus acquires a 'phantom objectivity', an autonomy that seems so strictly rational and all-embracing as to conceal every trace of its fundamental nature: the relation between people" (Lukács, 1971, p. 83; henceforth referred to as *HCC*). Lukács here refers to a passage in Marx's *Capital Volume 1* (chapter 1, section 1.1), where Marx describes commodities as having a "phantom-like objectivity" (Marx, 1867, p. 128). With the metaphor of the commodity as ghost, Marx expresses that the commodity's value appears in the money form and the commodity's price, but its substance – the average labour-time that workers have to expend in class relations for the production of the commodity – remains hidden.

Lukács' notion of reification and Marx's concept of alienation have in recent debates featured prominently within philosophy and critical social theory. For example, Rosa (2013) interprets acceleration as a process of alienation. Jaeggi (2014) argues that reification means that human subjects are prevented from appropriating the world and the self. Axel Honneth (2007) is one of the critical theorists who has in recent times worked most directly on actualising Lukács' concept of reification. He argues that reification means society's disrespect and lack of giving recognition to human beings. Building on Lukács and Honneth, Fuchs (2020) has identified exploitation, political oppression, and ideology as economic, political and cultural forms of oppression. This argument is in line with recent works by David Harvey (2018), who points out that alienation is a universal process that takes not just place in class relations but in many realms of society. Taken together, these authors show that reification means humans face conditions under which they cannot control these conditions, humans' and society's potentials cannot be realised, and where certain groups instrumentalise others in order to realise partial interests. This understanding of reification is in line with Lukács' outline of reification in *HCC*. His theory remains an important point of reference in 21st century critical theories of society.

Ideology as reified class consciousness

Class consciousness is "the appropriate and rational reactions 'imputed' [zugerechnet] to a particular typical position in the process of production" (*HCC*, p. 51).

Imputed/ascribed/attribution class consciousness (*zugerechnetes Klassenbewußtsein*) is objective class consciousness (*HCC*, p. 323). Objective class consciousness is defined by the subject's role in the production process, it is not simply empirical consciousness, but an "objective possibility" of consciousness – the "thoughts and feelings which men would have in a particular situation if they were *able* to assess both it and the interests arising from it in their impact on immediate action and on the whole structure of society" (*HCC*, p. 51). False consciousness is consciousness that "by-passes the essence of the evolution of society and fails to pinpoint it and express it adequately" (*HCC*, p. 50).

Ideology has in capitalist society a double nature:

1) Capitalism has an inherently fetishist character because producers and consumers do not experience the entire social relations and process of commodity production in its

totality so that the thing-status of the commodity and money hides the underpinning class relations and makes capitalism appear as a natural and infinite systems without alternatives.

2) Naturalisation is an important feature of ideologies in general, an important ideological strategy that makes domination appear necessary, timeless, inevitable and infinite in order to justify and legitimate oppression. For Lukács, ideology is a necessary legitimating feature of capitalism. The “veil drawn over the nature of bourgeois society is indispensable to the bourgeoisie itself. [...] the need to deceive the other classes and to ensure that their class consciousness remain amorphous is inescapable for a bourgeois regime” (HCC, p. 66).

Just like there is the labour of producing ideology conducted by managers, consultants, bourgeois scientists, intellectuals and journalists, etc., there is the ideology of labour: According to Lukács, the ideology of Calvinism is constitutive for “bourgeois reified consciousness with its things-in-themselves in a mythologised but yet quite pure state” (HCC, p. 192).

Ideology partly operates with the reification of language. Lukács quotes Marx from the *German Ideology* and remarks in a footnote: “Marx goes on to make a number of very fine observations about the effects of reification on language. A philological study from the standpoint of historical materialism could profitably begin here” (HCC, p. 209, footnote 16). Marx argues in the passage mentioned by Lukács that capitalism’s “relations of buying and selling” penetrate and shape language: “For example, *propriété* – property [*Eigentum*] and characteristic feature [*Eigenschaft*]; property – possession [*Eigentum*] and peculiarity [*Eigentümlichkeit*]; ‘eigen’ [‘one’s own’] – in the commercial and in the individual sense; *valeur*, value, *Wert*; commerce, *Verkehr*; *échange*, exchange, *Austausch*, etc., all of which are used both for commercial relations and for characteristic features and mutual relations of individuals as such” (Marx & Engels, 1845/46, p. 231). Reified society also brings about reified language. Indicative of this phenomenon is the presence of reified language in the Oxford Dictionary: For example, it defines communication as the “imparting or exchanging of information by speaking, writing, or using some other medium”¹. Exchange is a social relation, in a specific amount of a commodity is exchanged for a particular amount of another commodity: x commodity A = y commodity B (Marx, 1867, p. 163). In communication, you do not expect an “exchange” of 10 words for 10 words. Indeed, one person might utter a sentence consisting of ten words and another person might answer with just one word or a sentence consisting of twenty words. Language is in general not a commodity, although its objectifications can be turned into commodities, as the case of a book that is sold for a particular amount of money shows. The example shows that the commodity form in capitalism not just reifies social relations, but as part of reified social relations also reifies communication and language that mediate the production and reproduction of social relations.

In the English language, “exchange” stems from the Latin word *excambiāre*, the Anglo-Norman word *eschanger*, and the Old French verb *eschangier*². During the rise of Mercantilism in the 16th century, “exchange” was established as common word for the “[p]ractice of merchants or lenders meeting to exchange bill of debt” and “building for mercantile business”³. Fetishism makes the particular appear as general. Communication is a general feature of all societies, whereas exchange only exists in

societies shaped by class, markets, and divisions of labour. The linguistic conflation of exchange as commodity trade and exchange as communication creates the impression that markets are a general necessary feature of all societies. As a consequence of capitalist fetishism's impact on language, the Oxford Dictionary defines exchange simultaneously as a "short conversation or an argument" and "the trading of a particular commodity or commodities", a "system or market in which commercial transactions involving currency, shares, etc. can be carried out", and the "changing of money to its equivalent in the currency of another country"⁴.

Lukács wrote *History and Class Consciousness* longest chapter "Reification and the Consciousness of the Proletariat" in 1923. Given that the Nazis had not-yet come to power and just five years had passed since the Russian Revolution, Lukács was at this point of time rather optimistic about the potentials of proletarian revolutions. He argues that the bourgeoisie has necessary false consciousness, whereas the proletariat does not automatically have revolutionary consciousness, but has the possibility to see through fetishism. Lukács' political optimism is for example present in formulations such as the ones that the "consciousness of the proletariat is still fettered by reification" (*HCC*, p. 76) or capitalism keeps "the bourgeoisie imprisoned within this immediacy while forcing the proletariat to go beyond it" (*HCC*, p. 164).

In the immediate years after the Russian Revolution, optimistic assessments of the proletariat's actuality were certainly more justified than in the years between 1933 and 1945 or today. But *HCC* overall avoids overstressing the actuality of the proletariat's revolutionary consciousness and puts more stress on the proletariat's reified consciousness. Lukács therefore speaks of an "ideological crisis of the proletariat in which proletarian ideology lags behind the economic crisis" (*HCC*, p.305). Reification is "the necessary, immediate reality of every person living in capitalist society" (*HCC*, p. 197). "The danger to which the proletariat has been exposed since its appearance on the historical stage was that it might remain imprisoned in its immediacy together with the bourgeoisie" (*HCC*, p. 196). The proletariat can fail "to take this step" of becoming "the identical subject-object of history whose praxis will change reality". Capitalism constitutes at the same time potentials for the "quantitative increase of the forms of reification" and the "undermining of the forms of reification" (*HCC*, p. 208). Revolutionary consciousness is no automatism, the proletariat "can be transformed and liberated only by its own actions" (*HCC*, p. 208). "History is at its least automatic when it is the consciousness of the proletariat that is at issue" (*HCC*, p. 208). "Above all the worker can only become conscious of his existence in society when he becomes aware of himself as a commodity" (*HCC*, p. 168).

Lukács argues that there are three sources of the "bourgeoisification of the proletariat" (*HCC*, p. 310, *Verbürgerlichung* in the German original): the emergence of privileged sections of the working class (*HCC*, p. 304-305), the effects of capitalism's structures of reification on consciousness (*HCC*, p. 310), and the taming influence of reformist social democratic parties and unions. Revisionist social democracy is an ideology with which "the proletariat falls victim to all the antinomies of reification" (*HCC*, p. 197). For Lukács, the communist party plays an important role in the development of proletarian class consciousness. "The struggle of the Communist Party is focused upon the class consciousness of the proletariat" (*HCC*, p. 326).

Right-wing authoritarianism and new nationalisms online: Reified consciousness on the Internet

Since the new world economic crisis started in 2008, the predominant reaction has not been the strengthening of the political left, but the rise of new nationalisms and right-wing authoritarianism (Fuchs, 2018a). In many parts of the world, far-right, nationalist ideology finds crucial support among blue-collar workers. Morgan and Lee analysed the relation of voting behaviour and the occupational structure in the USA's 1,142 geographical units (defined by the American Community Survey). The working class was in this analysis defined as consisting of lower-grade service workers, skilled manual workers, unskilled manual workers, farmers, agricultural worker, and individuals without occupation whose highest educational attainment is a high school diploma. The analysis found that "Trump's gains in 2016, relative to Romney's more generic performance as a near-loss Republican candidate in 2012, were most substantial in areas with the largest percentages of eligible voters who can be identified as members of the white working class" (Morgan & Lee, 2018, p. 239). "A complementary areal analysis of 1,142 geographic units shows that Trump's gains in 2016 above Romney's performance in 2012 are strongly related to the proportions of the voting population in each geographic unit that were white and working class. This strong relationship holds in the six states that Trump flipped, and it varies little across other types of states. [...] the results [...] of our analysis support the claim that Trump's appeal to the white working class was crucial to his victory" (Morgan & Lee, 2018, p. 240).

Similar developments of far-right, nationalist politicians and parties succeeding in elections can be found in many countries. In many cases, blue-collar workers strongly support these type of politics (see Fuchs, 2018a), which is an indication that since 2008, there has been an intensification and extension of the tendency that nationalist ideology reifies blue-collar workers consciousness: A significant share of this part of the working class succumbs to the ideology that not class relations and capitalism, but immigrants, refugees and other nations are the cause of inequality and social problems. Nationalist and racist ideology presents a constructed conflict between nations and constructed conflicts between cultures as stratifying divisions in order to distract attention from the class conflict between capital and labour that has in the past decades resulted in rising profit and capital shares (the share of profits and capital in the gross domestic product) at the expense of the wage share (the share of wages in the gross domestic product) (Fuchs 2018a).

Social media such as Facebook and Twitter are key communication tools of contemporary right-wing politics. In the past couple of years, analyses of the right-wing use of the Internet have become more important (see e.g. Ernst et al., 2017; Müller & Schulz, 2019; Stier et al., 2017), which is a consequence of the global proliferation of what Lukács termed reified consciousness. Nationalists communicate four aspects of right-wing authoritarianism over online media: top-down leadership, nationalism, the friend/enemy-scheme, and the need for militant measures against the constructed enemies (Fuchs, 2018a).

Let us have a look at an example: Breitbart is a far-right online news portal that frequently features nationalist propaganda and has supported Donald Trump. Its former executive chairman Steven Bannon was the chief executive officer of Trump's presidential campaign and the Trump-executive's White House Chief Strategist from

January until August 2017. But the relations between Trump and Breitbart are older than that. On July 11, 2014, Breitbart published an article by Trump titled “A Country That Cannot Protect its Borders Will Not Last”. Trump wrote in this article:

“USMC [United States Marine Corps] Sgt. Tahmooressi sacrificed for our country, and while Obama is welcoming illegals, our Marine is locked in a Mexican jail. Mexico is allowing tens of thousands to go through their country and to our very stupid ‘open door’ at the Mexican border. Frankly, Sgt. Tahmooressi is the only person who can’t come into our country! [...] It’s clear to me that a country that cannot protect its borders will not last. What about the people at home? We are not caring for our own. [...] We cannot, as a nation, continue this way. The underlying fear now is that Obama has planned it that way. [...] The problem is easy to solve with leadership. We don’t have leadership in any capable capacity. It is a sad time for America” (Trump, 2014).



Donald J. Trump ✓

@realDonaldTrump

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Exclusive-Trump: 'A Country That Cannot Protect Its Border...

Our government should immediately stop sending money to Mexico. USMC Sgt. Tahmooressi sacrificed for our country, and while Obama is welcoming illegals, |

[breitbart.com](#)

12:27 pm - 11 Jul 2014

Figure 1: Donald Trump promotes a Breitbart-piece he wrote on Twitter

In order to promote his piece, Trump shared a link to it on Twitter (see figure 1). The background to this article is that former Marine Corps sergeant Andrew Tahmooressi was jailed in Mexico after he illegally crossed the border with three loaded guns in his car. All four elements of right-wing authoritarian ideology are present in Trump’s piece:

- The friend/enemy-scheme: Trump constructs a national conflict between Mexico and the USA. Mexico is said to allow illegal immigrants to cross into the USA and to jail American soldiers. The channelling of immigrants and the jailing of a former soldier, who was put into prison not in his role as soldier, but as a private individual allegedly violating Mexican law, are presented as Mexican practices that harm US citizens.
- Nationalism: Trump constructs a national “we”-identity of US-citizens that is directed against Mexico by speaking of “our country”, “our Marine”, “our own” interest, or “we

as a nation". Trump presents a us/them-difference, where "we" US-Americans are opposed to Mexicans and "their country".

- Militarism: Trump speaks of "our Marine" who "is locked in a Mexican jail" in order to argue that US-soldiers are individuals of highest honour because they take up arms to enforce US interests. Trump in general idolises soldiers and the military. In his ideology, the soldier is the ideal type of a human being. Whereas he considers US state violence as appropriate, he decries the use of Mexican law against US citizens, implying that it is unjust to prosecute US soldiers for breaking Mexican laws. Trump fuses militarism with nationalism and racist prejudices in order to create the impression that there is a national conflict between Mexico and the USA.
- Strong leadership: Finally, Trump argues that Illegal immigration and the alleged destruction of the US nation ("a country that cannot protect its borders will not last") is due to Obama's alleged weak leadership ("We don't have leadership in any capable capacity") and "open door"-policy "at the Mexican border". Trump implicitly suggests that he himself would be a strong leader ("The problem is easy to solve with leadership") and thereby anticipated his own candidacy in the 2016 US presidential election.

In order to be effective, ideologies need to be reproduced in the form of a constant flow of tabloid news, scandals, revelations, etc. Right-wing forces make use of social media for spreading the ideologies of top-down leadership, nationalism, the friend/enemy-scheme, and militarism/law & order-politics. Social media is a suited medium for spreading fake news and far-right propaganda because it is brief and superficial, operates at high speed, can reach a vast number of potential users in a short time by making postings spread in a networked information space, supports the amplification of emotions in the form of "likes" and other emoticons, and appeals to individuals' interest in sensationalism. The tabloid-like structure of Twitter, Facebook and YouTube supports the online spread of right-wing ideology. Capitalist social media have tolerated right-wing propaganda because vast flows of content and data promise higher profits from targeted ads. Social media is not the cause of the proletariat's reified consciousness in the contemporary world, but it is one of the communication tools that right-wing demagogues employ for spreading their ideologies. The very cause of the rise of the far-right is that capitalist politics have backfired and created a negative dialectic, in which the freedom of the market has intensified fears and inequalities that express themselves in support for far-right ideologies, politicians, movements and parties. Of course, also democrats and left-wing activists use social media for trying to challenge far-right ideology and communicate different stories and worldviews. But without a doubt, right-wing authoritarian ideology has contributed to a sustained reification of the proletariat's consciousness so that the rootedness of social problems in capitalism's very structure is veiled.

Anti-fascists and anti-racists contest right-wing authoritarianism online. There are not just the likes of Breitbart on social media, but also groups and individuals such as Hope Not Hate (around 100k followers on Twitter), Democratic Socialists of America (around 250k Twitter-followers), Black Lives Matter (around 350k Twitter-followers), National Association for the Advancement of Colored People (around 450k Twitter-followers), etc. that challenge racism and right-wing extremism and run online campaigns. An

example is the International Day Against Fascism and Antisemitism (9 November) that uses hashtags such as #SpeakUpNow, #FightFascism, #9November, #DayAgainstFascism, and #DayAgainstAntisemitism.

The next section will be based on *HCC* discuss the relationship of journalism and reification and will relate HCC to digital phenomena such as social media, online fake news, targeted advertising, algorithms, and political bots.

3. Journalism and reification

Lukács on journalism

Ideology does not exist independent from human beings, but must be constantly produced and reproduced in social relations. Lukács mentions bourgeois journalists as producers of ideology. By “bourgeois” journalists, we mean journalists who create stories that reify capitalism and domination with the help of various ideological strategies. Bourgeois journalism is a particular type of ideological labour, labour that creates ideological news stories.

Lukács argues that physical workers experience reification relatively directly. Their labour “directly possesses the naked and abstract form of the commodity, while in other forms of work this [reification] is hidden behind the façade of ‘mental labour’, of ‘responsibility’, etc.” (*HCC*, p. 172). “The more deeply reification penetrates into the soul of the man who sells his achievement as a commodity the more deceptive appearances are (as in the case of journalism)” (*HCC*, p. 172). Journalists’ love of their work and their ethos as democracy’s fourth estate that guarantees freedom of expression and opinion and tries to make power transparent and tries to prevent the abuse of power, can easily veil their status as wage-workers.

In *HCC*, Lukács remarks in one passage: “The journalist’s ‘lack of convictions’, the prostitution of his experiences and beliefs is comprehensible only as the apogee of capitalist reification” (*HCC*, p. 100). As a result, the news produced by bourgeois journalism often reifies capitalism and domination. In a footnote to the passage just cited, Lukács (*HCC*, p. 210, footnote 24) refers to an essay by Béla Fogarasi (without mentioning its title). Fogarasi (1891-1959) was like Lukács a member of the Hungarian Communist Party. They were both members of the “Sunday Circle”, an intellectual discussion group that existed from 1915 until 1918 in Budapest. Fogarasi’s (1921/1983) essay “Tasks of the Communist Press”, to which Lukács refers, was published in 1921.

The essay distinguishes between the capitalist and the communist press and argues that the capitalist press is “an ideological weapon in the class struggle” (p. 149) utilised by the bourgeoisie in order to dominate “the ideology of the ensemble of classes” (p. 149). “What the capitalist press seeks is to shape the structure of the reader’s consciousness in such a way that he will be perpetually unable to distinguish between true and false, to relate causes and effects, to place individual facts in their total context, to rationally integrate new knowledge into his perspective” (Fogarasi, 1921/1983, p. 150). Fogarasi implicitly applies Lukács’ critique of reified consciousness to the capitalist press. In the capitalist press, the focus is often not on the dialectic of totality, particularity and individuality, but merely on individual, isolated pieces of news. According to Fogarasi, strategies of the capitalist press include to report a multitude of isolated facts that shall quench the readers’ thirst for knowledge, de-politicisation, and

sensationalism that work systematically in the service of distraction, and pseudo-objectivity. In contrast, the communist press tries to advance the consciousness of society as totality and of the relation of single events with each other and broader contexts, the unmasking of the capitalist press, and the participation of readers as producers of reports.

Fogarasi not just applied Lukács' concepts of reification and the totality to journalism, but also in 1921 anticipated Benjamin's (1934, p. 777) idea of turning "consumers [...] into producers" and "readers or spectators into collaborators" as well as Brecht's (1932, p. 42) idea of a radio that lets "the listener speak as well as hear". Fogarasi's essay also points out aspects of ideology in the media that resonate with Lukács notions of ideology and reified consciousness.

The next two sub-sections will show that Lukács' analyses of news and journalism as reified consciousness remain topical in the contemporary age of the Internet, social media, and fake news.

The new spirit of capitalism

In contemporary capitalism, creative workers' love of the content of their labour and the high degree of self-determination has become a new ideology that veils the fact that those, who can do what they love, often do so under precarious conditions. Luc Boltanski and Ève Chiapello (2005) speak in this context of the "new spirit of capitalism". The new spirit of capitalism is a management ideology that promises to workers to conduct labour that features "autonomy, spontaneity, rhizomorphous capacity, multitasking (in contrast to the narrow specialization of the old division of labour), conviviality, openness to others and novelty, availability, creativity, visionary intuition, sensitivity to differences, listening to lived experience and receptiveness to a whole range of experiences, being attracted to informality and the search for interpersonal contacts" – qualities that "are taken directly from the repertoire of May 1968" (Boltanski & Chiapello, 2005, p. 97).

The new spirit of capitalism promises to knowledge workers less alienated labour, by which they can live the life of an artist, celebrity, or journalist. A range of studies has shown that knowledge workers in media industries see their labour as highly creative, self-determined and self-fulfilling, but that it is at the same time often highly precarious⁵ Rosalind Gill (2011) summarises the results of such studies by identifying ten features of cultural and media labour: Such labour is often characterised by 1) love of the work, 2) the entrepreneurial aspiration to innovate and pioneer, 3) is often short-term, precarious and insecure, 4) is characterised by low pay and 5) long hours, 6) requires that workers constantly develop their knowledge and skills, 7) is based on DIY learning and 8) informality, 9) features inequalities relating to gender, age, class, race, ethnicity and disability, and 10) deprives workers of the time and resources necessary to plan their future.

Cultural and media labour *appears* to be less reified and alienated than manual labour, but is often organised as precarious freelancing that does not provide adequate social, job and income security. The ideology of conducting labour that is creative and innovative can reify the consciousness of cultural workers so that they do not see themselves as workers, but entrepreneurs, are hostile to unionisation, see precarity as their individual fault and not a class relation imposed by capitalism, etc. The new spirit

of capitalism is a new ideology that reifies labour by creating the appearance of de-alienation and at the same time imposes highly individualised working conditions that undermine social and income security. It is a new form of alienation that appears to be unalienated. Whether workers' reaction to this new ideology is reified or non-reified consciousness, depends among several factors on the question whether they can be collectively politically organised and develop critical consciousness that lets them see through the capitalist reality behind the false appearances.

Especially young precarious workers in the cultural sector have tried to fight back against neoliberalism by reinvigorating the cooperative movement. Cultural cooperatives are self-managed companies that are collectively owned and governed by their workers (see <http://cultural.coop/>) (Sandoval, 2016). In the realm of the Internet, there have been experiments with platform co-operatives (Scholz & Schneider, 2016).

The age of online fake news

Advertising-funded media focus on sensationalism and entertainment in order to attract and sell audiences and tend to feature pro-capitalist and conservative worldviews. Google, Facebook and Twitter use targeted-advertising, which allows to personalise and individualise ads with the help of digital surveillance and big data analytics. The Cambridge Analytica scandal has shown how the targeted ad-based model of digital capitalism collides with democracy: In 2013, University of Cambridge-neuroscientist Aleksandr Kogan began to use Facebook's developer platform in order to conduct a personality quiz. As a result, personal data of around 90 million users was collected and sold to Cambridge Analytica, a company whose vice-president was Steve Bannon. Cambridge Analytica used the data for targeting users with fake news in election campaigns, which has been widely seen as the attempt to manipulate democracy. In the light of Cambridge Analytica, critical studies of online fake news and post-truth online have proliferated (see e.g. Duffy, Tandoc, & Ling, 2019; Humprecht, 2019; Carlson, 2020). Facebook has as a consequence come under public scrutiny in 2018 because it seems to have known about the use of its targeting mechanism for anti-democratic activities. Targeted online advertising allows large corporations to manipulate and colonise the public sphere by using their advertising budgets for targeting users with corporate and political propaganda. In the online world, native advertising and branded content make it difficult to discern advertising from editorial content, which undermines journalistic autonomy.

Selective sourcing that benefits elites and the capitalist class constitutes a news filter. Online communication other than mass media is based on a decentralised communication infrastructure, where in principle everyone can produce and disseminate information. In the online world, the power hierarchy and class structuration shift from the production of content to the production of visibility and attention. Corporations, celebrities, traditional and new elites dominate online visibility and online attention (see Fuchs, 2017, pp. 122-128). For example, in July 2018 Luis Fonsi's music video "Despacito" was with 5 billion and 368 million views the most accessed YouTube-video of all times⁶. Universal Music Latin Entertainment, a division of the Universal Music Group that is owned by Vivendi, is the publisher of Fonsi's song and video, which shows that big multimedia corporations play a dominant role on YouTube. Given that corporate

social media are advertising-based, attention can be purchased as commodity, which benefits wealthy corporations and individuals.

Fake news is as old as the tabloid press, but in the online world fake news can spread quickly, can be individually targeted, and it is often hard to distinguish if online behaviour in the context of fake news is conducted by humans or algorithms. Right-wing movements try to make use of social media for spreading their propaganda and challenging socialist and liberal political positions and worldviews online. They not just use bots and traditional lobbying methods online, but often also resort to threats, bullying and hate speech.

Bourgeois media often, but not exclusively spread ideology. In section three, we have already seen an example of how nationalist and xenophobic ideology is spread online. Ideology on the Internet tends to be visual and tabloidised. It makes use of strategies such as simplification, the use of only few words, emotionalisation, scandalisation, polarisation, banalisation, manipulation, fabrication, etc. User-generated ideology means that the labour of producing ideology is not confined to professional ideologues, but has penetrated everyday life. Ideologies are sensational, populist, simplistic, emotional, and directly address particular groups. Algorithms amplify the views of those who gain high levels of attention. As a consequence, we find the online tendency of the algorithmic amplification of online ideologies.

The actions of corporations, celebrities, and political elites result in the colonisation of the public sphere. These processes also operate in the online world and on social media, where targeted advertising, algorithms, big data, political bots, fake online news, digital surveillance and other mechanisms are used and result in the corporate and political stratification of the Internet.

Fake news has been challenged by developments such as fact-checking organisations and the quest for building a public service Internet that consists of non-commercial platforms that do not have a for-profit imperative but want to benefit the public by reliable news, information and educational resources that are provided online and engage users (Fuchs, 2018).

In the next section, we will see that communication technologies are not just a medium for the communication and challenging of reified thought, but also form an object of reification. Lukács' work will be used for showing how one can analyse ideologies of the Internet and digital media.

4. The reification of communication technologies

Lukács on intellectual workers

In the essay "*Intellectual Workers*" and *the Problem of Intellectual Leadership*, written in 1919, Lukács (2014, pp. 12-18) argues that intellectual workers do not form a separate class. Those "who, like manual workers, are able to participate in production only by means of their labour power (white-collar workers, engineers, etc.)" differ "sharply from those whose intellectual work is only an accessory to their bourgeois status (major share-holders, factory owners). The class distinction between these two groups is so clear to the objective observer that it is impossible to bring them together under one heading, as the class of 'intellectual workers'" (Lukács, 2014, p. 12). "Those 'intellectual workers' who participate in production therefore belong (*with an unclear class*

consciousness, at best) to the same class as the manual workers” (Lukács, 2014, p. 13). Intellectual workers are not “a *homogeneously structured class*, since even within their ranks a clear division into oppressors and oppressed” (Lukács, 2014, p. 13) can be found.

Knowledge workers in the information society

In discussions of the “information society” (Webster, 2014), a distinction among the agricultural sector, the manufacturing sector, and the service sector is frequently made. As part of this division, information and knowledge workers are often said to form a distinct group within the service sector. The problem of this argument is, as Lukács indicates, that managers who sustain the control of workers and represent the capitalist interest are said to share the same position in the production process as productive knowledge workers, who directly create commodities that are sold in order to yield profit.

Today, the class character of knowledge workers has become even more complex because many creative workers have the status of freelancers: They sell their labour via one-time contracts and do not have the capital necessary to employ others. Freelancing is especially prevalent among knowledge workers such as data inputters, software and web developers, designers, translators, writers, personal assistants, editors, and proof-readers. Such workers sell their labour power and yield profit for others. As long as a freelancer does not form a business that besides him- or herself also employs others, there is no doubt that s/he is part of the working class. Journalists are either wage-workers or, increasingly, freelancers. Their position in the production process on the one hand makes them part of the working class. But journalists, consultants and others who serve, as Lukács writes, “material, ideological and power interests” (Lukács, 2014, p. 13) by justifying capitalist interests in their writings, are just like managers part of the ruling class. Only the critical journalists, who investigates capitalism critically, is fully part of the working class and not part of the ruling class.

Fake news has been challenged by developments such as fact-checking organisations and the quest for building a public service Internet that consists of non-commercial platforms that do not have a for-profit imperative but want to benefit the public by reliable news, information and educational resources that are provided online and engage users (Fuchs, 2018).

Lukács’ critique of technological fetishism in the age of big data capitalism

There are not just ideologies that are communicated with the help of technologies, but also ideologies of technologies. In respect to digital technologies, we do not just find ideologies on the Internet, but also ideologies of the Internet. Lukács does not use the term “technological fetishism”, but describes how technologies are turned into fetish objects. He speaks of “the exploitation for particular human ends (as in technology, for example) of [...] fatalistically accepted and immutable laws” (*HCC*, p. 38). Technological fetishism distorts the machine’s “true objective nature by representing its function in the capitalist production process as its ‘eternal’ essence” (*HCC*, p. 153).

In the age of digital capitalism, digital technologies such as the Internet, social media platforms, the mobile phone, big data technologies, the Internet of Things, cloud

computing, industry 4.0/industrial Internet, etc. are often treated as technological fetishes in bourgeois thought. Let us consider an example. The business press is in general a good source for observing the newest trends in bourgeois ideology.

In May 2017, *The Economist* ran a cover story under the title “The World’s Most Valuable Resource is no Longer Oil, but Data”: “A NEW commodity spawns a lucrative, fast-growing industry. [...] A century ago, the resource in question was oil. Now similar concerns are being raised by the giants that deal in data, the oil of the digital era” (*The Economist*, 2017). Google, Amazon, Apple, Facebook and Microsoft are “titans” that “look unstoppable”. “The giants’ success has benefited consumers. Few want to live without Google’s search engine, Amazon’s one-day delivery or Facebook’s newsfeed”. “Algorithms can predict when a customer is ready to buy, a jet-engine needs servicing or a person is at risk of a disease”. *Fortune* published an interview on big data with Intel’s CEO Brian Krzanich. He said: “Oil changed the world in the 1900s. It drove cars, it drove the whole chemical industry. [...] Data, I look at it as the new oil. It’s going to change most industries across the board” (Gharib, 2018). Artificial Intelligence-based data is “not just gonna change business, it’s gonna change every person on this planet’s life in some positive way”. “I think if you go and talk to the employees, they’ve never seen the company on this level of pace of change and competitiveness. But I don’t think you can ever stand still and say that it’s fast enough in this technology world”.

These examples show some typical features of technological fetishism:

- **Autonomy:** Technology is presented as being autonomous from society’s power structures. Technology is not situated in society as totality. In the two examples, there is predominantly a focus on how new technologies such as big data technologies and Artificial Intelligence positively change society without a focus on how they are embedded into class structures, exploitation, and domination.
- **Subjectivity:** Technology and not humans are presented as a subject that acts (“Oil changes”, etc., Data is “going to change most industries”, AI “changes every person on this planet’s life”). The purpose of this strategy is to reify technological developments as inevitable, unchangeable, unavoidable and irreversible by presenting them as independent from human will and action.
- **Revolution:** Technological developments are presented as revolutionary, as taking place rapidly and as changing everything (“Data” as the “new oil”, “data, the oil of the digital era”, “this level of pace of change” is never “fast enough in this technology world”). The goal of this strategy of presentation is that humans do not question undoing certain technologies or aspects of them.
- **Technology as one-dimensional cause, digital determinism:** Technology is said to be the cause of changes in society (“it’s gonna change every person on this planet’s life in some positive way”). Power structures and social contradictions are disregarded.
- **Technological optimism/pessimism:** Changes in society that stand in the context of technology are said to be either purely positive (technological optimism) or purely negative (technological pessimism). In the examples, it is for example claimed that big data “has benefited consumers. Few want to live without” it. Or that algorithms can predict when a person is “at risk of a disease” and “change every person’s [...] life in some positive way”. There is no talk about actual or potential harms such as

algorithmic surveillance, algorithmic discrimination, disadvantages arising from errors and false predictions, etc.

Lukács' critique of quantification

In *HCC*, Lukács develops a critique of the logic of quantification that he sees at the heart of reified thought and bourgeois consciousness. It lies in the “nature of capitalism to” reduce “the phenomena to their purely quantitative essence, to their expression in numbers and numerical relations” (*HCC*, p. 6). Capitalism uses the sciences in order to assess and optimise investments, labour-time, capital accumulation, commodities, power, etc. Capitalism is the society of accumulation that is based on the logic of capital, which is transferred into different realms of society, such as politics and culture, in order to accumulate not just money, but also decision-power and definition-power. In order to accumulate, you need to assess existing quantities as foundation for identifying strategies of how to increase them. At the end of the process, the result is quantified in order to identify strategies of what to do when the accumulation process starts all over again. Capitalism has to develop ever newer forms of rationalisation and new methods of production in order to increase productivity, reduce costs and accumulate capital. The history of capitalist technology is therefore a history of rationalisation and the development of ever newer methods of quantification. “If we follow the path taken by labour in its development from the handicrafts via co-operation and manufacture to machine industry we can see a continuous trend towards greater rationalisation, the progressive elimination of the qualitative, human and individual attributes of the worker” (*HCC*, p. 88). Modern philosophy has developed together with technologies of rationalisation (*HCC*, p. 113). Lukács argues that reification's reduction of totalities to partialities is not limited to the economy, but also affects bureaucracy, the state, the law, and culture (*HCC*, pp. 98-100).

The logic of computing is reductionist and anti-dialectical: “The methodology of the natural sciences which forms the methodological ideal of every fetishistic science and every kind of Revisionism reject the idea of contradiction and antagonism in its subject matter” (*HCC*: 10). Mathematical logic cannot see “the whole system at once” (*HCC*, p. 117). It reduces explanations to basic principles (reductionism) and believes in the exact predictability and calculability of the world (determinism) (*HCC*, p. 117). Lukács (*HCC*, pp. 89-90) quotes Marx in order to show capitalism's fetishism of quantification: “Time is everything, man is nothing; he is, at the most, time's carcass. Quality no longer matters. Quantity alone decides everything; hour for hour, day for day” (Marx, 1847, p. 127). Lukács writes: “Thus time sheds its qualitative, variable, flowing nature; it freezes into an exactly delimited, quantifiable continuum filled with quantifiable ‘things’ (the reified, mechanically objectified ‘performance’ of the worker, whole separated from his total human personality)” (*HCC*, p. 90). In the essay *The Question of Educational Work* (first published in 1921), Lukács (2014, pp. 91-92) argues that the bourgeois belief in the power of quantification and the natural sciences was reflected in the mechanical determinism advanced by both bourgeois economics and revisionist social democracy. Critical thought, in contrast, has to do “away completely with all forms of fatalism” (Lukács, 2014, p. 93). It stresses human qualities such as the capacity of humans to change the world.

Freelancers not just face a peculiar form of exploitation, but have also self-organised in order to resist precarity. As a result, unions such as the Freelancer's Union and the Independent Workers' Union (IWGB) have been created that put an emphasis on being platforms for self-organised struggles of freelancers and other non-traditional workers.

Lukács' critique of quantification revisited: the critique of big data analytics

Big data analytics is the newest methodological trend of quantification in almost all academic fields. It is a method that gathers large amounts of data and applies algorithms and mathematical analysis (such as correlation analysis) to this data in order to identify patterns, relations, correlations and predict behaviour that allow "to monitor, manage, and control citizens" (Mosco, 2017, p. 8). As a reaction to the rise of big data, a series of critical studies of big data analytics and its implications for society has emerged (see e.g. Andrejevic, 2014; Beer, 2018; boyd & Crawford, 2012; Couldry & Mejias, 2019; Chandler & Fuchs, 2019; Van Dijck, Poell, & de Waal, 2018).

Big data analytics' fetishism of quantification has led uncritical tech enthusiasts such as the former editor of the neoliberal *Wired* magazine Chris Anderson (2008) to argue that big data results in the "end of theory": "With enough data, the numbers speak for themselves [...] [When] faced with massive data, this [traditional] approach to science – hypothesize, model, test – is becoming obsolete. [...]"

Big data positivism's quantitative methodology disregards the qualitative aspects of the analysis of society, such as ethics, morals, critique, theory, emotions, affects, motivations, worldviews, interpretations, political assessments, power, social struggles, or contradictions. The danger is that big data analytics advances uncritical, instrumental knowledge that serves dominant interests in the execution of capitalist rule and domination. Another danger of big data analytics is that the social sciences and humanities are colonised by a combination of computer science and business studies that tries to root out critical thinking and critical theory by instrumental big data reason. Big data analytics is one of the newest developments in the history of tools of reification that Lukács analyses and criticises.

Chen, Chiang and Storey's (2012) article is one of the most cited articles that contain "big data" in the title⁷. The authors identify big data analytics as "business intelligence and analytics (BI&A) 3.0" that follows after the two stages of BI&A 1.0 (statistical analysis and data mining applied to structured data collected through enterprise systems) and BI&A 2.0 (text and web analytics applied to unstructured web contents). "[B]ig data and big data analytics have been used to describe the data sets and analytical techniques in applications that are so large (from terabytes to exabytes) and complex (from sensor to social media data) that they require advanced and unique data storage, management, analysis, and visualization technologies" (Chen, Chiang and Storey, 2012: 1166). The authors argue that big data analytics will have "big impact" (Chen, Chiang & Storey, 2012, p. 1168) on society. They list purely positive impacts in the realms of the economy, politics, science and technology, health and wellbeing, and security and public safety that include "increased sale and customer satisfaction", the improvement of "transparency, participation, and equality", increased "scientific impact", "[i]mproved healthcare quality", and "[i]mproved public safety and security". Chen, Chiang and Storey's article is typical for mainstream research on big data: It is the expression of highly reified thought that argues that pure quantification as represented

by big data analytics will radically transform society and only have positive impacts that will improve life in society in many respects. Possible negative consequences are not analysed and discussed, which is the consequence of the abstraction of the analysis from society as totality and its social relations of power.

Big data analytics tends to forget about class and domination. Its fetishism of quantification sees society as a thing constituted by large quantities of data and disregards the social qualities that make up society. Big data analytics is what Lukács describes as a “fetishistic science” that disregards “contradiction and antagonism” (*HCC*: 10) and the totality.

Big data analytics is certainly a major trend in research and academia. Its digital positivism has, however, been challenged by approaches such as critical digital and social media studies, critical digital sociology, and critical digital humanities (Fuchs, 2017; Lupton, 2015; Berry & Fagerjord, 2017).

5. Conclusion

We can summarise this essay’s key results:

- In *HCC*, Lukács conceives of society based on a dialectic of subject and object that avoids the pitfalls of voluntarist spontaneism and mechanist fatalism. In later works, he clarified the mediating role of language and communication in the dialectic of subject and object: Communication is the mediating process in the dialectic of subject of object that produces and reproduces social relations. There is a dialectic of work and communication (communication at work, the work of communication).
- Lukács shows in *HCC* that the reification of consciousness has objective foundations in capitalism’s commodity structures and forms an element of ideologies that justify capitalism by naturalising structures and practices of domination. In contemporary capitalism, social media have become a medium of communication, where reified thought is communicated and challenged. Especially the communication of right-wing authoritarian ideologies and its elements of strong leadership, nationalism, the friend-enemy-schema and militarism is prevalent on corporate social media such as Twitter, Facebook and YouTube.
- Cultural and media labour constitutes a new form of reification: By fostering creativity and self-determined labour, it appears as and creates an aura of non-alienated labour that deflects attention from the fact that such labour is often highly insecure and precarious.
- Private ownership/profit-orientation, advertising, and ideology operate in new ways in the realm of social media and on the Internet, which results in the colonisation of the online public sphere by the interests of corporations, celebrities, and political elites.
- Lukács’ critique of reification entails a critique of technological fetishism and the logic of quantification. In digital capitalism, this analysis matters in several respects, including the critique of digital determinism and digital positivism.
- Digital determinism fetishises digital technologies by presenting them as autonomous subjects that bring about revolutionary technological changes of society that are either purely positive or purely negative.

- Big data analytics is one of the newest developments in the history of tools of reification that Lukács analyses and criticises. Big data analytics is a form of digital positivism and fetishistic science that disregards qualities, contradictions and totalities. It advances uncritical, instrumental knowledge that serves dominant interests by being used as a tool of reification.

History and Class Consciousness' critique of reification, ideology and reified consciousness remains highly topical in the age of digital capitalism and big data. Lukács' analysis allows us to critically analyse how social media, big data and various other Internet technologies are used as tools of reification. That new technologies are deeply embedded into capitalist and dominative structures does however not imply that there are no alternative potentials and no alternative forces at work in the realm of digital technologies. Lukács opposed deterministic analyses, which implies that although exploitation and domination are ubiquitous in capitalism, there is always the possibility for critical consciousness and critical action (praxis).

In reified computing and technology, the instrumental logic of quantification, capital and bureaucracy subsumes human activities and destroys solidarity. At the same time, modern technology has created new potentials for co-operation and socialisation. Computing operates at different levels. A socialist framework of society and technology does not need to abolish computing, but needs to transform its design so that technologies are human-centred, humans in collective processes control the design and use of technology, and quantification is subsumed under the logic of human-centredness. For example, socialist design does not mean to abolish social media, but to make them truly social so that privacy violations, intransparent algorithms, targeted advertising, individualism, and the accumulation of reputation are no longer design principles and are substituted by privacy-friendliness, direct human communication, collective production, co-operation, solidarity, creative commons and transparency and the openness of algorithms as design principles.

Digital technologies such as the Internet are today also used by activists for challenging exploitation and domination (Fuchs, 2014). Digital commons projects such as Wikipedia and alternative online media (e.g. Democracy Now! and Alternet) challenge the capitalist shaping of digital technologies. Furthermore, there are potentials for public service Internet platforms and platform co-operatives that challenge the logic of the corporate digital giants (Fuchs, 2018b). These are attempts to create a non-reified, commons-based and public and commons-based digital media landscape. One crucial lesson we can learn from Lukács is that revolutionising the digital media landscape so that the capitalist Internet can be transcended towards a commons-based Internet can neither be achieved by technology nor by single individuals, but only by critically conscious humans who organise themselves as political collectives and engage in class struggles that transform technology and society. Only human praxis can create a commons-based Internet and a socialist society.

Lukács stresses that the creation of workers' councils is a form of class struggle that "spells the political and economic defeat of reification" (*HCC*, 80). In the digital age, where users are producers and there is a variety of digital workers, the creation of platform co-operatives that are owned by workers and users as well as public service Internet platforms that are publicly owned are part of the struggle of the working class

against digital capital's power. In addition, we today find the use of social media and apps as communicative weapons in social struggles. Examples are the use of social media in various Occupy movements (Author, 2014) and in the Chinese working class' struggles against corporations such as Foxconn (Qiu, 2016). Another important realm of class struggle in digital capitalism are the demands of gig economy workers for better working conditions that are voiced with the help of the Internet (see e.g. Cant, 2020; Ravenelle, 2019; Woodcock, 2019). Digital media today are not just tools of reification, but also tools of class struggles by which the contemporary digital proletariat has the opportunity to perfect "*itself by annihilating and transcending itself, by creating the classless society through the successful conclusion of its own class struggle*" (HCC, 80).

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Notes

¹ <https://en.oxforddictionaries.com/definition/communication>

² <https://en.wiktionary.org/wiki/exchange>

³ <https://www.etymonline.com/word/exchange>

⁴ <https://en.oxforddictionaries.com/definition/exchange>

⁵ For an overview see the contributions in Maxwell (2016).

⁶ <https://www.youtube.com/watch?v=kJQP7kiw5Fk>, accessed on July 29, 2018.

⁷ ISI Web of Knowledge: search conducted on July 29, 2018: With 863 citations, the article was the second most cited work containing 'big data' in the title.