

Critical Theory Foundations of Digital Capitalism: A Critical Political Economy Perspective

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Abstract:

The overall task of this paper is to outline some foundations of a critical theory of digital capitalism. The approach of the Critique of Political Economy is taken as the starting point for theorising (digital) capitalism.

First, the paper discusses selected classical definitions of capitalism. Theories of digital capitalism must build on definitions and theories of capitalism. If capitalism is not only an economic order but a societal formation, the analysis of capitalism is the analysis of economic exploitation and non-economic domination phenomena and their interaction. Theories of digital capitalism should also address the question of how class, racism, and patriarchy are related in the context of digitalisation.

Second, the author introduces a notion of digital capitalism that is based on Marx's approach of the Critique of Political Economy.

Third, the paper engages with one influential contemporary approach to theorising capitalism, Nancy Fraser's Cannibal Capitalism. The author discusses what we can learn from Fraser's approach to theorising digital capitalism.

Fourth, the author discusses existing understandings of digital capitalism that can be found in the academic literature. These definitions are compared to the understanding advanced in this article.

Fifth, the paper discusses the relationship of the notion of digital capitalism from a Critical Political Economy perspective in comparison to the notions of the network society/informational capitalism (Manuel Castells), surveillance capitalism (Shoshana Zuboff), and platform capitalism (Nick Srnicek).

Sixth, the paper reflects on the relationship between digital capitalism and violence as we live in a (digital) age where a new World War is all but uncertain.

Finally, some conclusions are drawn.

Keywords: digital capitalism, critical theory, Critique of Political Economy

1. Introduction

Facebook and Google exploit our digital labour. That's digital capitalism. In late 2022 and early 2023, Google laid off 12,000 employees; Microsoft 10,000; Twitter more than 10,000; Amazon 18,000; and Facebook 11,000. That's digital capitalism. Algorithms are used by corporations for socially sorting and discriminating against customers who struggle to make ends meet and live in deprived neighbourhoods. That's digital capitalism. Lots of clickwork is conducted by poorly paid women in the Global South. That's digital capitalism. Digital fascism, fake news, post-truth culture and algorithmic politics circulate on capitalist and state-capitalist Internet platforms. That's digital capitalism. Information war and echo chambers polarise the digital public sphere, making a new World War between imperialist powers that compete at the global level for the control of territory, economic power and political as well as ideological hegemony and

the nuclear annihilation of humankind and life on Earth more likely. That's digital capitalism.

Digital capitalism matters. Digital capitalism shapes our lives. Digital capitalism needs to be better understood. We need critical theories of digital capitalism. We need to better understand praxes that challenge digital capitalism and aim at fostering digital democracy and digital socialism.

This paper introduces a theoretical notion of digital capitalism that is grounded in Marx's Critique of Political Economy and Marxist Humanism. It wants to answer the question: What is digital capitalism? It provides an answer that does not conceive of capitalism as an economy but as a society and societal formation (*Gesellschaftsformation*). The argumentation will proceed in the following way: First, the notion of capitalism is clarified (section 2). Then, a notion of digital capitalism is introduced that is based on the notion of capitalism as a societal formation (section 3). In section 4, we engage with Nancy Fraser's concept of capitalism in her book *Cannibal Capitalism* and discuss what we can learn from it for theorising digital capitalism. In section 5, the outlined understanding of digital capitalism is compared to other definitions. In section 6, the notion of digital capitalism is compared to the concepts of the network society (Manuel Castells), surveillance capitalism (Shoshana Zuboff), and platform capitalism (Nick Srnicek). Section 7 analyses the role of violence in digital capitalism. Section 8 presents some conclusions.

2. What is Capitalism?

Theories of capitalism emerged in the 19th century in the context of industrial capitalism. Classical Political Economists such as Adam Smith (1790/1984, 1776/1976) and David Ricardo (1821) did not use the term capitalism. For example, Ricardo (1821, 49) (1821, p. 49, translation from English) spoke of the existence of the "three classes of landlord, capitalist, and labourer" but not of capitalism as a system.

In the literature, we can find three types of definitions of capitalism: culturalist, economic, and societal understandings. Culturalists can, for example, be found in Cultural Economy approaches. Karl Marx (1867/1990, 1885/1992, 1894/1981) founded a societal approach to the analysis of capitalism which he called the "Critique of Political Economy". Sociologists like Werner Sombart (2017, 1916/1969), Max Weber (1992), Thorsten Veblen (1899, 1915), and economists like Joseph Schumpeter (1939, 1943) built on Marx's theory and at the same time made it their task to go beyond Marx. While Schumpeter was primarily interested in economic analysis, Sombart, Weber, and Veblen examined cultural dimensions such as the spirit of capitalism, the Protestant ethic, conspicuous consumption, and the leisure class, which they analysed as phenomena outside capitalism and in interaction with it. Sombart, Weber, and Veblen provided economic definitions.

2.1. Culturalist and Economic Understandings of Capitalism

Culturalism, as we find it for example in Cultural Economy approaches, (Amin and Thrift 2004; Du Gay and Pryke 2002; Thrift 2005) sees capitalism as cultural, part of culture, discourse, way of life, ethics, system of ideas, and ideal.

Let us have a look at some concrete definitions of capitalism:

Werner Sombart: "capitalism designates an economic system significantly characterized by the predominance of 'capital' [...] The spirit, or the economic outlook, of capitalism is dominated by three ideas: acquisition, competition, and rationality. The purpose of economic activity under capitalism is acquisition, and

more specifically acquisition in terms of money. The idea of increasing the sum of money on hand is the exact opposite of the idea of earning a livelihood, which dominated all precapitalistic systems, particularly the feudal-handicraft economy. [...] While acquisition constitutes the purpose of economic activity, the attitudes displayed in the process of acquisition form the content of the idea of competition. [...] Economic rationality penetrates gradually into other cultural spheres, reaching even those which are only remotely connected with economic life. [...] capitalist technology must insure a high degree of productivity. [...] The technology characteristic of the capitalist system must also lend itself most readily to improvement and perfection. For constant technical improvements are an important weapon in the hands of the capitalist entrepreneur, who seeks to eliminate his competitor and to extend his market by offering goods superior in quality or lower in price. [...] *The Ideal Entrepreneur* combines the traits of inventor, discoverer, conqueror, organizer, and merchant” (Sombart 2017, 4, 6, 9, 11, 12, 15).

Schumpeter saw capitalism as “that form of private property economy in which innovations are carried out by means of borrowed money, which in general, though not by logical necessity, implies credit creation” (Schumpeter 1939, 216) and in which “[c]reative destruction is the essential fact” (Schumpeter 1943, 83). For Veblen, the “capitalistic system” is the “modern economic organization” whose “characteristic features, and at the same time the forces by virtue of which it dominates modern culture, are the machine process and investment for profit” (Veblen 1915, 1).

Max Weber: “But capitalism is identical with the pursuit of profit, and forever *renewed* profit, by means of continuous, rational, capitalistic enterprise. [...] We will define a capitalistic economic action as one which rests on the expectation of profit by the utilization of opportunities for exchange, that is on (formally) peaceful chances of profit. [...] Where capitalistic acquisition is rationally pursued, the corresponding action is adjusted to calculations in terms of capital. This means that the action is adapted to a systematic utilization of goods or personal services as means of acquisition in such a way that, at the close of a business period, the balance of the enterprise in money assets (or, in the case of a continuous enterprise, the periodically estimated money value of assets) exceeds the capital, i.e. the estimated value of the material means of production used for acquisition in exchange. [...] The important fact is always that a calculation of capital in terms of money is made, whether by modern book-keeping methods or in any other way, however primitive and crude. Everything is done in terms of balances: at the beginning of the enterprise an initial balance, before every individual decision a calculation to ascertain its probable profitability, and at the end a final balance to ascertain how much profit has been made” (Weber 1992, xxxi-xxxiii).

Schumpeter, Sombart, Veblen, and Weber have in common that they understand capitalism as an economic system. The common denominator of their understandings is that capitalism is an economic system characterised by market competition in commodity sales, rational strategies that aim at maximising profits, and entrepreneurial investment and innovation activity.

Understanding capitalism merely as economy or merely as culture is reductionist. Economic reductionism ignores the logics of accumulation that take place outside of the economy. Cultural reductionism reduces capitalism to an idea, which ignores

aspects of politics and class. Neither economism nor culturalism provide an adequate understanding of capitalism.

2.2. Marx: Capitalism as Formation of Society (*Gesellschaftsformation*)

Marx spoke of the “capitalist society” (Marx 1867/1990, 103, 134, 667, 797, 875, 1063) and “the capitalist mode of production” (Marx 1867/1990, 90, 95, 98, 125, 278, 341, 345, 382, 645, 711). This means that for Marx, capitalism is both a type of economy (*Produktionsweise*, mode of production) and a type of society (*Gesellschaftsformation*, a formation of society/societal formation). Unlike Schumpeter, Sombart, Veblen, and Weber, Marx does not limit the concept of capitalism to the economy but assumes that capitalism means a dialectic of economy and society.

For Marx, the two main features of the capitalist economy are the general production of commodities and the working class’s production of surplus-value that the capitalist class appropriates, owns, and converts into profit through the sale of commodities, enabling the accumulation of capital and the reinvestment of capital:

“Two characteristic traits mark the capitalist mode of production right from the start. *Firstly*. It produces its products as commodities. The fact that it produces commodities does not in itself distinguish it from other modes of production; but that the dominant and determining character of its product is that it is a commodity certainly does so! [...] The *second* thing that particularly marks the capitalist mode of production is the production of surplus-value as the direct object and decisive motive of production” (Marx 1894/1981, 1019-1020).

A formation of society is, according to Marx, a “totality” of “the material conditions of life” (Marx 1859, 262). In society, the material conditions of life are constituted by humans’ social production processes; social and societal production and reproduction processes form the materiality of society (Fuchs 2020a). Capitalism is a formation of society in which the mass of people is alienated from the conditions of economic, political and cultural production, which means that they cannot control the conditions that shape their lives, allowing privileged groups to accumulate capital in the economy, accumulate decision-making power in politics and accumulate prestige, attention and respect in culture.

Marx repeatedly speaks of an “economic formation of society” (Marx 1867/1990, 92, 345; 1894/1981, 911, 954), which is an indication that he sees the economic system as a particularly important sphere of capitalism and society. Multifactor analyses that postulate a plurality of equally important systems in society cannot explain what society’s ground is. But that there is a ground does not mean that one sphere determines what happens in other spheres. The economy conditions, prefigures, circumscribes, enables, constrains, exerts pressure on, sets limits to, and determines in the first instance what is happening in the non-economic spheres of politics and culture.

Unlike Schumpeter, Sombart, Veblen, and Weber, Marx does not limit the concept of capitalism to the economy but assumes that capitalism means a dialectic of economy and society. This differentiation between an economic and a societal understanding of capitalism persists until today. For example, while the French economist Thomas Piketty (2020, 154) defines capitalism as an economic system “that seeks constantly to expand the limits of private property and asset accumulation”, the philosopher Nancy Fraser (2022, 145) argues the capitalism “is not an economy, but a type of *society* – one in which an arena of economized activities and relations is marked out and set

apart from other, non-economized zones, on which the former depend, but which they disavow”.

The next section will present the foundations of a Marxist-Humanist theory and critique of the political economy of digital capitalism.

3. The Critique of the Political Economy of Digital Capitalism

3.1. Society

In the book *Communication and Capitalism* (Fuchs 2020a), the author of this paper outlines the foundations of a theory of the role of communication and media in capitalism. Building on Raymond Williams’s approach to Cultural Materialism, the book argues that social production is the fundamental activity of society and is an economic practice that shapes all areas of society where it also takes on new, non-economic forms. In the economy, humans produce use values that satisfy human needs. In politics, they produce collective decisions. And in culture, they produce meanings of the world. As process (communication) and medium (means of communication), communication and means of communication mediate all social and societal processes in which humans participate. There is a dialectic of work and communication. Humans produce communicatively and they communicate productively. Communication is the production and reproduction process of human sociality and society.

An edifice is a poor metaphor for society. It has often been used as a metaphor in the base/superstructure-model of society. Buildings are static. Everything stands and falls with the base. The base/superstructure-model of society is mechanistic, deterministic, and reductionist. This does, however, not imply, as some pundits claim, that society is an unconnected postmodern plurality of networked differences or a systems-theoretic functional differentiation of autonomous subsystems of society. The subsystems of society are variegated and united at the same time. They have commonalities and differences. The economy unites them by being the source of the logic of social production. Social production originates in the economy but works in all systems and spheres of society, including non-economic ones where humans produce structures that have emergent properties that cannot be reduced to the economy.

The river is a better metaphor for society than the edifice. A river is productive and dynamic. Imagining society as a river means that it is processual, changing, and historical. There is a main current, the economy, that flows into undercurrents and side currents that flow back into the main current. Humans in society constantly produce and reproduce society and sociality at various levels of organisation. They produce use-values in the economy, collective decisions in politics, and meanings in culture. The river is a metaphor for the dynamic reproduction of society and its spheres that encroach on each other.

The economy in the form of social production plays a special role in society. The economy, as Georg Lukács (1986, 448) argues, “circumscribes” (umschreiben) subjectivity and the non-economic. The economy, as Raymond Williams says, is “setting limits, exerting pressures” (R. Williams 1973, 4) on the non-economic. The economy, as Stuart Hall (2021, 156) writes, determines the non-economic not in the last instance but in the “first instance”.

3.2. Capitalism

Rivers are not always clean and beautiful. The polluted river is a metaphor for capitalism and class society and how they endanger and pollute humans’ everyday lives. “Capitalism is a type of society that is based on and operates within the principle of the

accumulation of capital and power” (Fuchs 2020a, 118). Capitalism is a system that includes the accumulation of monetary capital in the economy, the accumulation of decision-making power in the political system, and the accumulation of prestige and distinction in the cultural system. In all these processes of accumulation, there are winners and losers. Labour as alienated social production has a special role in all these areas of accumulation. In capitalism, the logic of accumulation circumscribes (Lukács) human practices, sets limits and exerts pressures (Williams), and determines human practices in the first instance (Hall).

In a capitalist society, the economy plays a special role because all realms of society are conditioned, shaped, influenced, and circumscribed by the logic of accumulation and by class relations.

Realm of society	Central process in general	Central process in capitalist society	Underlying antagonism in capitalist society	Structural dimension of capitalism
Economy	Production of use-values	capital accumulation	capitalists VS. workers	Class relation between capital and labour
Politics	Production of collective decisions	accumulation of decision-power and influence	bureaucrats VS. citizens	The nation-state
Culture	Production of meanings	accumulation of reputation, attention, respect	ideologues/celebrities/influencers VS. everyday people	Ideology

Table 1: Accumulation as a general process in capitalist society (based on Fuchs 2022a, table 1.2)

Table 1 shows how we can make sense of accumulation as a general process in capitalist society. In capitalism, alienation takes on the form of accumulation processes that create classes and inequalities. Capitalism is based on capitalists’ accumulation of capital in the economy, bureaucrats’ accumulation of decision-power and influence in the political system, and ideologues’, influencers’ and celebrities’ accumulation of reputation, attention, and respect in the cultural system. Capitalism is an antagonistic system. Its antagonisms (see table 1) drive its development and accumulation. Accumulation is an antagonistic relation that not just constitutes dominant classes and groups but also subordinated, dominated, and exploited groups such as the working class in the capitalist economy, dominated citizens in the capitalist political system, and ideologically targeted everyday people in capitalism’s cultural system.

Capitalist society’s antagonistic relations that drive accumulation are the source of inequalities and crises, which means that capitalism is an inherently negative dialectical system. As a response to crises, the ruling class and ruling groups require mechanisms they use for trying to keep the dominated class and dominated groups in check so that they do not rebel and revolt. Capitalism, therefore, is also an ideological system where dominant groups use the logic of scapegoating for blaming certain groups for society’s ills and problems. Scapegoating entails the logic of the friend/enemy-scheme. And the friend/enemy-scheme can lead to violence, fascism, racism, anti-Semitism, and nationalism. Capitalism has barbaric potentials. Crises of capitalism can be fascism-producing crises that turn barbarism from a potentiality of capitalism into an

actuality. Only class and social struggles for socialism and democracy can keep capitalism's negative potentials in check.

In capitalist society, powerful actors control natural resources, economic property, political decision-making, and cultural meaning-making, which has resulted in the accumulation of power, inequalities, and global problems, including environmental pollution as well as the degradation and depletion of natural resources in the nature-society-relation, socio-economic inequality in the economic system, dictatorships and war in the political system, ideology and malrecognition in the cultural system.

For Marx, class antagonism is a key aspect of the capitalist economy. The working class produces in the unpaid part of the working day surplus-value that is not paid for and is appropriated by capital. "In capitalist society, free time is produced for one class by the conversion of the whole lifetime of the masses into labour-time" (Marx 1867/1990, 667). The members of the working class are via capitalism's dull compulsion of the labour market forced to sell their labour-power and produce capital, commodities, surplus-value, and profits for the capitalist class. The capitalist economy is a class system, in which workers produce commodities with the help of means of production that are the private property of members of the capitalist class. These commodities are sold on commodity markets so that profit is achieved and capital can be accumulated.

Class relations where capital exploits labour form a key feature of the capitalist economy. Workers are alienated from the conditions of production in class society because they do not own the means of production and the products of their labour. The logic of accumulation is not limited to the realm of the economy but extends into the political and cultural realms. We can therefore speak of capitalist *society*. Capitalism is a type of society where the mass of humans is alienated from the conditions of economic, political and cultural production, which means that they do not control the conditions that shape their lives, which enables privileged groups' accumulation of capital in the economy, decision-power in politics, and reputation, attention and respect in culture. Alienation in the economy means the dominant class's exploitation of the working class's labour. Alienation in non-economic systems means domination, i.e., one group benefits at the expense of other groups via means of control such as state power, ideology, and violence. In capitalism, we find the accumulation of capital in the economy, the accumulation of decision-power and influence in politics, and the accumulation of reputation, attention and respect in culture. The key aspect is not that there is growth, but that there is the attempt of the dominant class and dominant groups to accumulate power at the expense of others who as a consequence have disadvantages. Capitalist society is therefore based on an economic antagonism of exploitation between classes and social antagonisms of domination. Table 2 shows the levels and structures of capitalist society.

	Micro-level	Meso-level	Macro-level
Economic structures	commodity, money	companies, markets	capitalist economy
Political structures	laws	parties, government	the capitalist state
Cultural structures	ideology	ideology-producing organisations	the capitalist ideological system

Table 2: Levels and structures of capitalist society (based on Fuchs 2022a, table 1.1)

3.3. Digital Capitalism

In the book *Digital Capitalism*, the present author has further developed the analysis of communication and capitalism. He sees digital capitalism as a special dimension and organisational form of capitalist society. “Digital capitalism is the dimension of capitalist society where processes of the accumulation of capital, decision-power, and reputation are mediated by and organised with the help of digital technologies and where economic, political, and cultural processes result in digital goods and digital structures. Digital labour, digital capital, the digital means of production, political online communication, digital aspects of protests and social struggles, ideology online, and influencer-dominated digital culture are some of the features of digital capitalism. In digital capitalism, the accumulation of capital and power is mediated by digital technologies. There are economic, political, and cultural-ideological dimensions of digital capitalism. Digital capitalism is an antagonistic dimension of society, a dimension that stands for how the economic class antagonism and the social relations of domination are shaped by and shape digitalisation. Digital capitalism’s antagonisms are the class antagonism between digital labour and digital capital, the political antagonism between digital dictators and digital citizens, and the cultural antagonism between digital ideologues and digital humans” (Fuchs 2022a, 312).

Realm of society	Underlying antagonism in capitalist society	Antagonisms in digital capitalism	Examples
Economy	capitalists VS. workers	digital capital VS. digital labour, digital commodity VS. digital commons	The monopoly power of Google, Facebook, Apple, Amazon, Microsoft, etc.
Politics	bureaucrats VS. citizens	digital dictators VS. digital citizens, digital authoritarianism/fascism VS. digital democracy	Donald Trump’s use of Twitter and other social media
Culture	ideologues and celebrities VS. everyday people	digital ideologues VS. digital humans, digital hatred/division/ideology VS. digital friendship in culture.	asymmetrical attention economy in popular culture on social media: the cultural power of online-influencers such as PewDiePie (> 100 million followers)

Table 3: The antagonisms of digital capitalism (based on Fuchs 2022a, table 1.4)

Digital capitalism is based on the accumulation of digital capital in the economy, the accumulation of digital decision-power in the political system, and the accumulation of reputation, attention, and respect in culture. Accumulation is an economic logic that in (digital) capitalist society goes beyond the economy where it takes on emergent properties. The economic logic of accumulation determines accumulation in other systems of (digital) capitalism not in the last instance, but in the “*first* instance” (Hall 2021, 156),

economic accumulation “circumscribes” (Lukács 1986, 448), is “setting limits” and “exerting pressures” (Williams 1973, 4) on non-economic accumulation in (digital) capitalist society.

There are economic, political, and cultural-ideological dimensions of digital capitalism. Digital capitalism is an antagonistic dimension of society, a dimension that represents how economic class antagonism and social relations of domination are shaped by and shape digitalisation. The antagonisms of digital capitalism are the class antagonism between digital labour and digital capital, the political antagonism between digital dictators and digital citizens, and the cultural antagonism between digital ideologues and digital humans.

Accumulation in digital capitalism leads to particular forms of the antagonisms characteristic of capitalism. Table 3 provides an overview and examples of these antagonisms. Digital capitalism is an antagonistic society, that is, it is a digital class society and a digital form of domination.

The worsening of crisis situations and social inequalities have led to the rise of authoritarian capitalism in several countries in the last 15 years, in which right-wing demagogues use the Internet to spread fascism, nationalism, and racism (Fuchs 2018a; 2020b, 2022b). There is a dialectic between digital capitalism and authoritarian capitalism and fascism.

Table 4 shows an analysis of the world’s 100 largest companies.

The 18 media and digital corporations included in the analysed ranking were Alphabet/Google, Microsoft, Apple, Samsung, Verizon Communications, China Mobile, Meta Platforms/Facebook, Tencent, Amazon, Deutsche Telekom, Taiwan Semiconductor, Comcast, Alibaba, Nippon Telegraph, Sony, Oracle, Walt Disney, and Cisco Systems.

Table 4 shows that financial capital is the dominant capital faction in the world’s largest 100 corporations. Fossil capital as well as media and digital capital play important roles in the control of profits and revenues. Also manufacturing capital has significant shares of the total sales and profits. The data provide an indication that contemporary capitalism is at the same time financial capitalism, fossil capitalism, media capitalism, digital capitalism, hyperindustrial capitalism, etc. Digital capitalism is one dimension of capitalism. There are many interacting dimensions of capitalism. Capitalism consists of capitalisms. There are dialectics of capitalism that constitute capitalism as formation of society.

Next, we will engage with a book that just like the author’s approach conceives of capitalism as a society: Nancy Fraser’s *Cannibal Capitalism*.

Industry	Type of Capital	Companies	Share of Companies (%)	Share of Sales (%)	Share of Profits (%)	Share of Assets (%)
FIRE	Finance capital	36	36	25.6	29.5	82.3
Media & Digital	Media and digital capital	18	14	19.3	23.6	5.8
Manufacturing	Hyperindustrial capital	16	14	14.3	10.9	4.2
Fossil	Fossil capital	14	14	24.1	26.8	4.6
Pharmaceutical	Bio-capital	8	8	5.3	5.1	1.5
Conglomerates		3	3	2.1	1.2	0.6
Retail	Sales capital	3	3	6.7	1.9	0.5
Construction	Construction capital	1	1	2	0.4	0.5
Transportation	Transportation capital	1	1	0.7	0.6	0.1

Table 4: Share of specific types of capital in the world's largest 100 corporations' number, sales, profits, and capital assets (data source: Forbes 2000, year 2023)

Coding of industries:

- Construction
- Digital: IT & software services, media, semiconductors, technology hardware & equipment, telecommunications services
- FIRE: banking, diversified financials, insurance
- Manufacturing: aerospace and defence, capital goods, consumer durables; food, drink & tobacco; household & personal products, materials
- Fossil: oil and gas operations
- Pharmaceutical: drugs & biotechnology
- Retail: retailing
- Transportation

4. Cannibal Capitalism: The Interaction of the Economy and Non-Economic Conditions of Possibility in Capitalism

Nancy Fraser is a critical theorist, philosopher, and social and political theorist. She has been involved in theory construction and debates in the context of feminism, justice, the public sphere, and capitalism. Her book *Cannibal Capitalism: How Our System Is Devouring Democracy, Care, and the Planet and What We Can Do About It* (Fraser 2022) is a very notable and interesting contribution to theorising capitalism. It should be interesting to anyone who asks themselves: What is capitalism?

Dimension of Capitalism	Contradiction	Central Processes	Structures	Crises
Economy	capital/labour	Class-based exploitation, commodification, wage-labour	Private property in the means of production, double-free wage labour, capital accumulation, markets	Economic crises
Reproduction	production/reproduction	Gender domination, unwaged and underwaged care work	Households, neighbourhoods, educational institutions, families	Crises of care
Nature	humanity/non-human nature	land grabbing (<i>Landnahme</i>),	Land, minerals, energy, raw materials, foodstuffs air, water, atmosphere	Ecological crises
Polity	polity/economy, national/international, core/periphery	Political domination	Nation-states, public goods and public power (legal order, repressive forces, infrastructures, money supply, mechanisms for crisis management), civil societies, political organisations	Political crises (of governance and hegemony), crises of democracy
Racism/Imperialism	exploitation/expropriation	racialised expropriation, racial and imperial oppression, racialised accumulation, violence, theft	Wealth created by subjugated peoples	The globalisation of crises of the economy, care, ecology and polity/democracy

Table 5: An overview of Nancy Fraser's concept of capitalism and its dimensions

Fraser (2022) argues that capitalism is “something larger than an economy” (17). “Capitalism is not an economy, but a type of society – one in which an arena of economized activities and relations is marked out and set apart from other, non-economized zones, on which the former depend, but which they disavow” (145). It is “an institutionalized societal order that encompasses not only ‘the economy’ but also those activities but also those activities, relations, and processes defines as non-economic, that make the economy possible” (82). The capitalist economy has “non-economic conditions of

possibility” (81). Capitalism is a societal order where the “economic system defined by private property, the accumulation of ‘self-expanding value, the market allocation of social surplus and of major inputs to commodity production, including (doubly) free labor, is rendered possible by four crucial background conditions, concerned, respectively, with social reproduction, the earth’s ecology, political power, and ongoing infusions of wealth expropriated from racialized peoples” (17).

Fraser argues that there are hidden abodes of capitalism that are “background conditions of possibility for exploitation” (8) and that capitalism’s “economic foreground features depend on non-economic background conditions” (17). She in this context utilises the categories of cannibalisation, expropriation, ongoing primitive accumulation, dispossession, and enclosure.

For Fraser, capitalism is a societal order where economic processes of exploitation interact with five non-economic processes, namely patriarchy, racism, imperialism, nature, and politics. In table 5, I have attempted to summarise Fraser’s theoretical approach to capitalism.

The advantage of Fraser’s approach is that she sees capitalism as something larger than just an economy. This reflects Marx’s insight that capitalism is a *Gesellschaftsformation* (a formation of society, societal formation). For theorising digital capitalism, we can learn from Fraser that it is important how we look at the dialectics of the economic and the non-economic within the capitalist formation of society when analysing digitalisation. We can also learn from Fraser that when talking about capitalism we should look at how class relations interact with gender relations, racism, and power structures in general.

There are also theoretically troubling aspects of Fraser’s approach. In Fraser’s analysis, there is no cultural and ideological dimension where the media, meaning-making, communication, discourse and ideology play a role. The term “ideology” is mentioned a single time in *Cannibal Capitalism*. Fraser leaves unclear what role ideology plays in capitalism. Commodity fetishism, classism, racism, sexism, fascism, etc. not only, but also have ideological dimensions that are located inside of capitalist society.

She has a pluralist view of capitalism where the five realms of capitalism have their own “distinctive normative and ontological grammars” (18). The implication is that patriarchy, racism, imperialism, nature, and politics do not have their own economies and do not have internal economic aspects but are mediated by the economy that is in her approach external to these systems. For Fraser, there is no common logic that binds together all realms of capitalism. Her analysis is a dualistic, multifactor, pluralist analysis of capitalism.

Extractive and agricultural work transforms nature into natural resources that enter the economic production process. Therefore, nature has economic aspects. In society, the human-nature-metabolism is part of the economy. Nature, patriarchy, imperialism, polity, and racism are not purely non-economic realms, but all have aspects of labour, namely agricultural labour, care and reproductive labour, outsourced labour in the Global South, political work in political organisations and public service work in public organisations, and racialised labour. Fraser analyses such forms of labour but nonetheless speaks of “non-economic conditions of possibility” (81) of the capitalist economy.

A dialectical analysis of society can avoid pluralism and dualism by seeing the economic as operating both inside and outside the economy in the form of social production. All realms of society have economic, political and cultural dimensions. Social production is the basic process in society. All realms, social relations, groups,

organisations, and institutions have an economy of social production as well as emergent qualities that cannot be reduced to the economic dimension. In capitalism, the logic of accumulation shapes many social systems in so far as they are part of capitalism. What Fraser (2022) terms *boundary struggles* are struggles for or against the subsumption of social relations under the logic of accumulation. Accumulation means the logic of quantification and “always more and more” so that one group amasses resources which creates deprived humans, deprived spaces, and unequal distributions. The class system, patriarchy, and racism are social systems. Each of these social systems has an economic, a political and a cultural dimension. They are neither purely economic nor purely non-economic. In capitalism, the class system necessarily interacts with all other systems, including patriarchy and racism, which means there is always a class dimension to domination.

Capitalism as a societal formation is the interaction of the class system and systems of domination so that dominant groups accumulate economic capital, political power and cultural hegemony. All of these systems have their own specific economies and structures of accumulation. Fraser somewhat disregards that what she terms *the non-economic conditions of possibility of capitalism* are not entirely non-economic but have economic aspects, which means that the economy and class are at work also outside of wage-labour.

For Fraser, racism and patriarchy are located inside of capitalism as non-economic conditions of possibility of capital accumulation. While there are interests in capitalism that seek to advance the overexploitation of labour, which today includes racially discriminated labour and reproductive/care workers, capitalism is a flexible, dynamic system that has the possibility to create and dissolve milieus of over-exploitation and expropriation. Therefore, it might be the case that a green capitalism, a non-racist capitalism, or a non-patriarchal capitalism emerges when other milieus of expropriation and over-exploitation are created.

4.1. Capitalism, Racism, and Patriarchy

Capitalism, patriarchy, and racism are societal systems that each have an economic, a political and a cultural dimension (see table 6). Capitalism, racism, and patriarchy are three forms of power relations and societal modes of production that combine economic alienation, political alienation, and cultural alienation respectively. Capitalism, racism, and patriarchy involve specific forms of exploitation, domination, and ideology. These are three modes of societal production.

Patriarchy and racism are dialectically articulated with capitalism. Capitalism subsumes racism and patriarchy but can also detach itself from these societal modes of production and subsume other modes of production for economic purposes (over-exploitation), political purposes (domination), and cultural purposes (ideology).

Patriarchy and racism predate and have been subsumed under capitalism, where they are milieus of over-exploitation and ideologies and forms of friend/enemy-politics and militaristic politics. Patriarchy and racism as two capitalist milieus can break away from capitalism if they are decoupled from the logic of accumulation. Capitalism then seeks other milieus of over-exploitation, ideologisation, and militarisation.

	Capitalism	Racism	Patriarchy
Economic dimension	The exploitation of the working class	The exploitation and super-exploitation of racialised groups	The exploitation and super-exploitation of gender-defined groups, including houseworkers, female care workers, and female wage-workers
Political dimension	Bureaucratic discrimination of, surveillance of, state control of, and violence directed against dominated classes (such as wage-workers, slave-workers, precarious workers etc.)	Bureaucratic discrimination of, surveillance of, state control of, and violence directed against racialised groups	Bureaucratic discrimination of, surveillance of, state control of, and violence directed against gender-defined groups
Cultural-ideological dimension	Denial of voice, respect, recognition, attention, and visibility of the working class, ideological scapegoating of the working class	Racist ideology: the assumption that race exists as cultural and/or biological essence; denial of voice, respect, recognition, attention, and visibility of racialised groups, ideological scapegoating of racialised groups	Denial of voice, respect, recognition, attention, and visibility of gender-defined groups, ideological scapegoating of gender-defined groups

Table 6: The economic, political and cultural-ideological dimensions of capitalism, racism, and patriarchy as societal modes of production (based on Fuchs 2021, table 10.4)

Capitalism, racism, and patriarchy interact in particular ways that are shown in table 7. With respect to digitalisation, there are various forms of interaction of digital capitalism, digital racism, and digital patriarchy.

	Capitalism	Racism	Gender-related oppression, patriarchy
Capitalism	Exploitation	Racist exploitation	Gender-structured exploitation
Racism	Racist exploitation	Racism	Discrimination of racialised individuals or groups of a particular gender
Gender-related oppression, patriarchy	Gender-structured exploitation	Discrimination of racialised individuals or groups of a particular gender	Gender-based discrimination

Table 7: The interaction of capitalism, racism, and patriarchy (based on Fuchs 2021, table 10.5)

4.2. David Harvey: Universal Alienation in Capitalism

David Harvey argues that it is important to analyse the interaction of capitalism, patriarchy, and racism and holds that the latter two are located outside of capitalism:

“Contemporary capitalism plainly feeds of gender discriminations and violence as well as upon the frequent dehumanisation of people of colour. The intersections and interactions between racialisation and capital accumulation are both highly visible and powerfully present. But an examination of these tells me nothing particular about how the economic engine of capital works, even as it identifies one source from where it plainly draws its energy. [...] wars, nationalism, geopolitical struggles, disasters of various kinds all enter into the dynamics of capitalism, along with heavy doses of racism and gender, sexual, religious and ethnic hatreds and discriminations” (Harvey 2014, 8).

Harvey (2018) speaks of universal alienation for arguing that exploitation and alienation extend beyond wage-labour into realms such as reproductive labour, racialised labour, commodity distribution and sale, consumption, housing, health care, education, nationalism, racism, police violence, finance, urban development, etc (Fuchs 2018b). Alienation in the economy not just entails capital’s exploitation of labour, but also the realms of realisation, distribution, and consumption, which means it extends to phenomena such as unemployment, consumerism, land seizure, deindustrialisation, debt peonage, financial scams, unaffordable housing, high food prices, etc. Alienation entails processes beyond the economy, such as frustrations with politics, unaffordable public services, nationalist ideology, racism, police violence, militarism, warfare, alcoholism, suicide, depression, bureaucracy, pollution, gentrification, or climate change. Alienation entails the geographic and social expansion of capital accumulation so that capital relations “dominate pretty much everywhere” (Harvey 2018, 427). “Alienation is everywhere. It exists at work in production, at home in consumption, and it dominates much of politics and daily life” (Harvey 2018, 429).

Struggles against alienation, including struggles against racism and sexism, would have to be put together with working-class struggles. Harvey (2023) criticises identity politics that forgets class politics. There is a problem “to the degree that identity politics are seen in isolation from the totality of the social process” (Harvey 2023, 162). Class

would stand in relation to all non-class issues. “Class is not an exclusive category of analysis, but it is central to any politics that seeks to challenge the crises caused by capitalism” (Harvey 2023, 164).

4.3. Digital Capitalism, Digital Patriarchy, Digital Racism: An Example

Let's look at an example of the interaction of capitalism, patriarchy, and racism from the realm of digital media. As public discussion of the diversity of society has become of increasing importance, large companies have moved to produce specific sections on diversity or their own diversity reports as part of their Corporate Social Responsibility reports. Meta Platforms, the company formerly known as Facebook, produces an annual diversity report.

The Meta Diversity Report 2022 was written by Meta's Chief Diversity Officer Maxine Williams (2022). Meta reports that the diversity of its employees in terms of gender and ethnicity has increased. The report is written in a completely positivist language that communicates constant progress and does not address structural problems. Meta is said to be “building products with people from diverse backgrounds and perspectives”. For Meta, diversity is about quantifiability and indicators which, according to Meta, show that “Our Workforce and Leadership Diversity Continue to Grow”. Meta says it is an inclusive project: “And so, together, through dedication and innovation, we'll strive to make social media, the metaverse and all the people who rely on, work with or work for Meta an ever more inclusive global community”.

	2018	2019	2022	2021	2022
Men workers	63.7	63.1	63.0	63.3	62.9
Women workers	36.3	36.9	37.0	36.7	37.1
White workers	46.6	44.2	41.0	39.1	37.6
Asian workers	41.4	43.0	44.4	45.7	46.5
Afro-American workers	3.5	3.8	3.9	4.4	4.9
Men tech workers	78.4	77.0	75.9	75.2	74.2
Women tech workers	21.6	23.0	24.1	24.8	25.8
Men managers	70.0	67.4	65.8	64.5	63.3
Women managers	30.0	32.6	34.2	35.5	36.7
White managers	69.7	65.4	63.2	60.9	57.6
Afro-American managers	2.4	3.1	3.4	4.7	4.9
Asian managers	21.6	24.9	25.4	26.1	28.6
Men non-tech workers	43.0	42.8	41.5	40.4	39.5
Women non-tech workers	57.0	57.2	58.5	59.6	60.5
White non-tech workers	53.9	52.5	49.4	48.0	47.2
Afro-American non-tech workers	7.6	8.2	8.9	10.1	11.2
Asian non-tech workers	24.5	24.7	24.5	23.9	23.1

Table 8: The development of the composition of Meta Platforms' workforce in the USA, in percent, data source: <https://about.fb.com/news/2022/07/metadiversity-report-2022/>, accessed on March 23, 2023

Table 8 presents data on the development of the social composition of Meta Platforms' workforce in the USA.

In the field of software engineering, although the proportion of men at Meta has decreased from 78.4 per cent in 2018 to 74.2 per cent in 2022, a proportion of 25.8 per

cent of women in 2022 is still very low (see table 8). The focus on quantitative diversity indicators here ignores the fact that computer science's focus on the quantifiability and algorithmisation of the world, which is the dominant paradigm of software development, reproduces the patriarchal division of the world into quantity/quality, mathematics/social, technology/society, men/women, rationality/emotionality, nature/culture, individualism/socialism, abstract/concrete, etc. The dominant paradigm of computer science is inherently patriarchal. Software development as a profession tends to be pure engineering, ignoring the societal dimension, which has to do with issues of power and the application of software in society, and therefore with shaping society. Quantifying diversity cannot undo the structural problems of the interaction of patriarchy, racism, and digital capitalism. Meta ignores structural power relations in its diversity report. Diversity is treated as an engineering problem that can be solved by indicators. The company is blind to societal issues.

Meta's diversity indicators only refer to the ethnicity and gender of employees, while class aspects are simply ignored. The ratio of the wages of the lowest-paid workers to the highest managerial salaries, annual profits and dividends is not discussed and analysed. Similarly, aspects of value creation through paid wage labour and the unpaid labour of users, whom Kylie Jarrett (2016) calls digital houseworkers and digital housewives, are ignored. The exploitation of labour does not matter. The economic sector of social media is not diverse at all but consists of monopolies controlled by corporations like Alphabet (Google) and Meta Platforms. If diversity issues were taken seriously, there would also have to be a discussion on how monopoly profits can be abolished and non-commercial Internet platforms such as platform cooperatives and public Internet platforms (Fuchs and Unterberger 2021; Scholz and Schneider 2016, 2016) can be strengthened.

In the area of non-technical employees at Meta Platforms, the proportion of women has increased from 57.0% in 2018 to 60.5% in 2022 (see table 8). The proportion of Afro-Americans has increased from 7.6% to 11.2% over the same period (see table 8). This sector has the lowest wages, so the increase in diversity in this sector is simply an increase in diversity of exploitation. Wage levels and working conditions of different employment groups and especially the lowest-paid workers such as cleaners are not discussed in Meta's diversity report. At and on Facebook, cleaners are not only people who clean offices, but also content moderators primarily employed in developing countries who moderate and delete images of horror (beheadings, torture, child abuse, suicide, etc.) uploaded to the platform (Roberts 2019). The outsourcing of this work to the Global South is done with the aim of saving costs. Internet cleaners conduct extremely horrific work that is psychologically distressing, which is usually done unwillingly, done by poor people who desperately need money.

Meta's diversity report has ideological aims and seeks to present as progressive a company that has monopoly status and makes profit through the exploitation of digital labour.

In the diversity-washing practised by Meta and other corporations, "there is both an idealistic and positivistic approach to identity. Instead of being a historically developed relationship, positive occupations of marginalised identities are presented to us as a response to real oppression. The underlying relationship between capital and labour remains obscured"¹ (Roldán Mendivil and Sarbo 2022, 112). The goal is the diversity of exploitation, to make exploitation more diverse.

¹ Translated from German: „es einen sowohl idealistischen als auch positivistischen Umgang mit Identität. Statt als historisch gewachsenes Verhältnis werden uns Positivbesetzungen von

We have thus far outlined an understanding of digital capitalism that is based on the notion of capitalism as formation of society. In the next section, we will discuss other definitions of digital capitalism.

5. Definitions of Digital Capitalism

5.1. Foundations

The earliest mention of the term “digital capitalism” that I was able to trace was in a 1993 article in *Forbes* magazine, where Robert Lenzner, a *Forbes* senior editor, and *Forbes* reporter William Heuslein wrote the issue’s cover story titled “The Age of Digital Capitalism” (Lenzner and Heuslein 1993). The article describes “computerized financial instruments” (63), derivatives such as options, futures, currency forwards, interest-rates swaps, options on futures and swaps, etc. “Computers make all this magic [of derivatives] possible. [...] Think of all this as an adult Nintendo game with big dollar signs attached” (63).

Digital technologies have played an important role in finance capitalism. Ironically, the financial instruments that *Forbes* celebrated at the time of the popularisation of the World Wide Web fifteen years later played an important role in the global economic crisis that started in 2008.

Dan Schiller (1999) published the first book that contained the term “digital capitalism” in its title: *Digital Capitalism. Networking the Global Market System*. He sees the Internet as a means of the globalisation of capitalism:

“Networks are directly generalizing the social and cultural range of the capitalist economy as never before. That is why I refer to this new epoch as one of *digital capitalism*. The arrival of digital capitalism has involved radical social, as well as technological, changes. [...] As it comes under the sway of an expansionary market logic, the Internet is catalyzing an epochal political-economic transition toward what I call digital capitalism – and toward changes that, for much of the population, are unpropitious” (Schiller 1999, xiv, xvii).

5.2. Four Example Definitions of Digital Capitalism

In this section, we will look at the approaches to analysing digital capitalism by Philipp Staab, Sabine Pfeiffer, Jathan Sadowski, and Michael Betancourt.

5.2.1. Philipp Staab: Digital Capitalism as Privatised Mercantilism

Philipp Staab’s (2019) book *Digitaler Kapitalismus (Digital Capitalism)* builds on Schumpeter’s analysis of monopoly capitalism on the one hand, but on the other hand emphasises that today one has to go beyond Schumpeter, as digital goods are not scarce and Internet platforms such as Apple, Amazon, Google, and Facebook are Internet platforms that represent markets that are privately owned. “Digital capitalism must not be thought of from the problem of scarcity, but from a logic of non-scarcity. Its leading companies are not rational producer monopolies, but proprietary markets. Its dynamics feed less on the logic of entrepreneurial action than on the calculations

marginalisierten Identitäten als Antwort auf reale Unterdrückung präsentiert. Das dieser Unterdrückung zugrundeliegende Verhältnis von Kapital und Arbeit bleibt damit verschleiert“.

of rentiers. The goal is not maximum production, but the capitalisation of actually non-scarce goods”² (Staab 2019, 27).

Staab argues that the digital giants are rentier capitalists that extract value. “Proprietary markets, on the other hand, generate profits as rents from market ownership. Their positioning at the interface between producers and consumers allows them to collect commissions on market transactions with relatively low fixed and variable costs”³ (47). For Staab, digital capitalism is a privatised mercantilism. In classical mercantilism, the state-promoted trade monopolies (49), in digital capitalism there is “the conquest of the market itself by a small number of private-sector enterprises”⁴ (50). Staab summarises his findings on digital capitalism as follows:

“Digital capitalism should not be thought of (as Schumpeter did industrial capitalism) from the problem of scarcity, but from a logic of non-scarcity. Its leading companies are not rational producer monopolies, but proprietary markets whose core operation is the extraction of economic rents. Its dynamics therefore feed less on the logic of entrepreneurial action than on the calculations of rentiers. The goal is not maximum production, but the capitalisation of actually non-scarce goods. The effect of this constellation is not the death of capitalism, as Schumpeter once expected, but the radicalisation of its basic features, especially social inequality”⁵ (Staab 2019, 259).

Staab’s analysis has not only received approval (Haug 2020; Schmiede 2018), but has made an important contribution to the discussion of digital capitalism in Germany.

5.2.2. Sabine Pfeiffer: Digital Capitalism as Distributive-Force Capitalism

In her book *Digital Capitalism and Distributive Forces*, Sabine Pfeiffer (Pfeiffer 2022, 23) characterises digital capitalism as a new phase of capitalism that she characterises as “distributive-force capitalism”. She refers to advertising, marketing, transport, storage, planning, and forecasting as distributive forces. For Pfeiffer, distributive forces are “all the technological and organisational measures and activities related to value

² Translated from German: „Den digitalen Kapitalismus darf man nicht vom Problem der Knappheit her denken, sondern aus einer Logik der Unknappheit. Seine Leitunternehmen sind keine rationalen Produzentenmonopole, sondern proprietäre Märkte. Seine Dynamik speist sich weniger aus der Logik des unternehmerischen Handelns als vielmehr aus den Kalkülen von Rentiers. Ziel ist nicht die maximale Produktion, sondern die Kapitalisierung eigentlich unknapper Güter”.

³ Translated from German: „Proprietäre Märkte hingegen erwirtschaften Profite als Renten aus Marktbesitz. Ihre Positionierung an der Schnittstelle zwischen Produzenten und Konsumenten ermöglicht es ihnen, mit relativ geringen fixen und variablen Kosten Provisionen für Markttransaktionen einzustreichen“

⁴ Translated from German: „ist der digitale Kapitalismus die Eroberung des Marktes selbst durch eine kleine Zahl privatwirtschaftlicher Unternehmen”

⁵ „Den digitalen Kapitalismus sollte man nicht (wie Schumpeter den Industriekapitalismus) vom Problem der Knappheit her denken, sondern aus einer Logik der Unknappheit. Seine Leitunternehmen sind keine rationalen Produzentenmonopole, sondern proprietäre Märkte, deren Kernoperation in der Extraktion ökonomischer Renten besteht. Seine Dynamik speist sich daher weniger aus der Logik unternehmerischen Handelns, als vielmehr aus den Kalkülen von Rentiers. Ziel ist nicht die maximale Produktion, sondern die Kapitalisierung eigentlich unknapper Güter. Effekt dieser Konstellation ist nicht das Sterben des Kapitalismus, wie es Schumpeter einst erwartete, sondern die Radikalisierung seiner Grundzüge, insbesondere der sozialen Ungleichheit”.

realisation, the intention of which is, *secondly*, to guarantee the constant expansion of this value realisation, ensure this expansion in the long term and to do so at the lowest possible circulation costs. This is precisely where digitalisation and digital business models have proven particularly promising” (13).

Sabine Pfeiffer explains the rise of Google, Facebook, Amazon, and other digital giants as a consequence of the transition to distributive-force capitalism. That which “is new in digital capitalism may not be located on the side of value generation but on the side of value realisation” (Pfeiffer 2022, 19). According to Pfeiffer, digitalisation has driven the development of those distributive forces, resulting in a capitalism in which distributive forces play a key role. For her, digital capitalism is a capitalism of distribution. Although not everyone will agree with a strong focus on distribution that does not so much focus on computing as means of production and prosumption, Pfeiffer’s approach is an important contribution to the analysis of digital capitalism.

5.2.3. Nathan Sadowski: Digital Capitalism as Data Extraction

In the book *Too Smart. How Digital Capitalism is Extracting Data, Controlling our Lives, and Taking Over the World*, Nathan Sadowski defines digital capitalism as “capitalism with digital technologies” (49). He emphasises the role of smart technologies, that corporate data collection is “*theft and/or exploitation*” (55), and that Silicon Valley drives the ideology of tech solutions. He also says that Internet platforms are “*the new landlords of digital capitalism*” (61).

Schiller, Sadowski, and others have a more structuralist approach to digital capitalism, emphasising the role of digital communication networks such as the internet, data and digital technologies. Other approaches are more action-oriented and emphasise aspects of digitally mediated knowledge production.

5.2.4. Michel Betancourt: Digital Capitalism as Immaterial Production

For example, Betancourt (2015) in his book *The Critique of Digital Capitalism* understands digital capitalism as a “shift towards an economy based upon digital technology” (216), in which “immaterial production” (ii) and “immaterial valorization” are important (viii), creating the “illusion of production without consumption” (196) and “the substitution of immaterial values for physical production” (215), thus driving financialisation and financial crises.

Betancourt emphasises the role of computers as a means of production of digital capitalism, whereby data is generated. He says that in digital capitalism, our devices are not only commodities, but also a means of data production. By monitoring every interaction and communicating with each other, smart devices can collect valuable data about users’ habits and preferences. He uses the term immaterial production: “Immaterial production is characteristic of digital capitalism, and (equally characteristically) presents itself as something *other* than a commodity form: the impact of the *aura of information*. This aspiration is digital capitalism’s attempt to create a complete description of all *information as instrumentality* (data) where the disconnected, contextless dimensions of *all* activities performed within the digital realm become equally valid, and *valuable*, to immaterial production as commodities” (ii).

Betancourt’s emphasis on immaterial labour shows parallels with theories of cognitive capitalism (Moulier-Boutang 2011; Hardt and Negri 2000). The talk of “immaterial” labour and “immaterial” commodities often leaves unanswered the question of what we mean by “material” and “materiality”. It tends to be based on a vulgar understanding of materialism where matter is everything you can touch and feel. In contrast,

a cultural materialist approach assumes that everything is material because it is produced and is a product (Fuchs 2020a; R. Williams 1977).

5.3. Digital Capitalism as Digital Dimension of the Capitalist Formation of Society

The four approaches just discussed make important contributions to understanding digital capitalism in particular respects. Staab analyses the monopoly character of digital capitalism, Pfeiffer aspects of digital distribution, Sadowski the phenomenon of data extraction and Betancourt the production of digital information as a non-material commodity. What these approaches have in common is that they understand digital capitalism as a way of organising the economy, i.e., as an economic system.

The approach advanced by the author of this paper shares the economic focus of the works just discussed. Class and class transformations are key features of digital capitalism. But the present author's approach goes beyond the purely economic understanding of digital capitalism. The exploitation of digital labour is an aspect of digital capitalism. But it is also digital capitalism when influencers try to accumulate likes and followers on social media platforms on Instagram and TikTok. The logic of the cultural accumulation of reputation is at play on Instagram and TikTok. And it is also digital capitalism when fascists and authoritarians use bots and spread fake news and disinformation online in order to try to undermine democracy. The logic of the accumulation of political power shapes online fake news. Accumulation processes do not just exist in the (digital) economy, but also in (digital) politics and culture. The accumulation logic of the digital capitalist economy shapes digital capitalist politics and digital capitalist culture that have their own specific emergent qualities and relative autonomy. Capitalism is, as we can learn from Nancy Fraser, more than an economy. Digital capitalism is more than a digital economy.

Contemporary society and digital technologies' roles in it have not just been characterised as digital capitalism but also with concepts such as network society, surveillance capitalism, and platform capitalism. We will discuss these notions in the next section.

6. Digital Capitalism, Network Society, Surveillance Capitalism, Platform Capitalism

6.1. The Analysis of Knowledge and Digital Media in Marxist Theory

In Marxist theory, there is a long history of the analysis of knowledge in capitalism that goes way back to Marx. We can here not cover and reflect on this history properly, but merely mention some examples.

In the *Grundrisse*, Marx argued that the “development of fixed capital indicates to what degree general social knowledge has become a *direct force of production*, and to what degree, hence, the conditions of the process of social life itself have come under the control of the general intellect and been transformed in accordance with it” (Marx 1857/1858/1993, 706). Marx anticipated the rising importance of knowledge in production as a consequence of the development of the productive forces. In his study of the *Grundrisse*, Roman Rosdolsky comments that Marx here foresaw “the development of machinery as an automatic system” and stresses that emancipation from exploitation requires “that the development of machinery” facilitates the “radical reduction of working time” as foundation of “the abolition of class society” (Rosdolsky 1977, 243). Rosdolsky highlights that Marx analyses the antagonisms of technology in capitalism.

In debates on democratising socialism, Radovan Richta (1969/2018) at the time of the Prague Spring stressed that democratic socialism needed the use of computers as

one of its material foundations. In this context, he coined the notion of the scientific and technological revolution. He argues that science and technology have become key productive forces, which reflects Marx's insights in the *Grundrisse* about the general intellect: "New productive forces, first and foremost *science* and its application in technology, are entering the production process on all fronts, and with them goes the base of all scientific activity – social integration and finally the growth of human capacities that underlies all creative activity. [...] Science is now penetrating all phases of production and gradually assuming the role of the central productive force of human society and, indeed, the 'decisive factor' in the growth of the productive forces" (Richta 1969/2018, 26, 28) (Richta 1969, 28).

On the one hand, Richta stresses that the scientific and technological revolution has been embedded into the dialectic of capitalism's continuity and discontinuity: "Some people believe that capitalism has undergone a complete regeneration, others are loath to admit any substantial modification. The reality is, however, more complicated. In its social and class basis, capitalism has not changed, but there has been a substantial change in the conditions under which the self-expansion of capital can and is taking place; this imposes a new relationship to the productive forces, and important innovations throughout the reproduction process" (62). On the other hand, he points out computing's and the scientific and technological revolution's potentials to act as material foundation of democratic socialism: "The new status of science in society and the approaching shift of revolutionary strivings to new domains are coming to the fore: the economics of human resources assumes new significance, new conditions present themselves for shaping the socialist way of life and there is a growing need to solve the difficult problem of participation in civilization, to develop democratic forms of social life and so on" (19).

Since the 1950s, there have been Marxist theory debates on computer-based automation in capitalism. Contributors have included, for example, Friedrich Pollock (1966), Harry Braverman (1974), Projektgruppe Automation und Qualifikation (1975, 1987), André Gorz (1982), David Noble (1984), and many others. Whereas some have expected that computer-based automation will bring about the end of work, which has been interpreted as either the rise of post-scarcity socialism or mass unemployment and de-qualification, others have argued that new jobs and skills are emerging. Similar debates are underway today in the context of AI-based automation (Butollo and Nuss 2022; Steinhoff 2021; Srnicek and A. Williams 2015).

Let us briefly mention one of the Marxist works on automation. André Gorz (1982) says that "post-industrial society" (81) has transformed capitalism and that computer-based automation has "eliminated most skills and possibilities for initiative" (28) and is "in the process of replacing what remains of the skilled labour force (whether blue or white collar) by a new type of unskilled worker" (28) so that a post-industrial neo-proletariat has emerged. He sees automation as antagonistic and, therefore, argues that it has brought about potentials for abolishing the proletariat and capitalism and establishing what he terms a "post-industrial socialism" (82) where "the time spent on heteronomous labour is to be reduced to a minimum" so that "the mass of socially necessary labour" is "distributed among the population as a whole in such a way that the average working day reduced to a few hours" (101) and there is the "abolition of work" along with "the development of autonomous activity" and the "liberation of time" (2).

Although again and again criticised for various reasons, it cannot be denied that the books by Michael Hardt and Antonio Negri have given an important impetus to Marxist theory, also in respect to the analysis of computing and digitalisation. In *Empire*, Hardt and Negri (2000) argue that a "postmodern capitalism" (397) has emerged

that is shaped by the dominance of what the two authors term “immaterial labour”, a notion they base on Marx’s concept of the general intellect (29): “The central role previously occupied by the labor power of mass factory workers in the production of surplus value is today increasingly filled by intellectual, immaterial, and communicative labor power” (29). Immaterial labour, according to Hardt and Negri, has three key features: “the communicative labor of industrial production that has newly become linked in informational networks, the interactive labor of symbolic analysis and problem solving, and the labor of the production and manipulation of affect” (30). In this age of immaterial labour, the proletariat is not limited to industrial labour but exists all over society, which includes and many realms of non-wage-labour. *“In postmodernity the social wealth accumulated is increasingly immaterial; it involves social relations, communication systems, information, and affective networks. Correspondingly, social labor is increasingly more immaterial; it simultaneously produces and reproduces directly all aspects of social life. As the proletariat is becoming the universal figure of labor, the object of proletarian labor is becoming equally universal. Social labor produces life itself”* (258).

Building on Negri and other works in Autonomous Marxism, Nick Dyer-Witheford in his book *Cyber-Marx* argues that computing and the Internet are at the heart of what he terms “a post-Fordist, postmodern, informational capitalism” (7) that is highly antagonistic and has new potentials for “the common sharing of wealth” (2) and “an information-age communism” (13). In the Autonomous tradition, various authors have spoken of the emergence of a cognitive capitalism (Moulier-Boutang 2011; Vercellone 2007). Vercellone (2007, 16) understands cognitive capitalism as a stage of capitalist development where the “relation of capital to labour is marked by the hegemony of knowledges, by a diffuse intellectuality, and by the driving role of the production of knowledges by means of knowledges connected to the increasingly immaterial and cognitive character of labour”. For Moulier-Boutang (2011, 56-57), cognitive capitalism is a “system of accumulation, in which the accumulation is based on knowledge and creativity, in other words on forms of immaterial investment. [...] By cognitive capitalism we mean, then, a mode of accumulation in which the object of accumulation consists mainly of knowledge, which becomes the basic source of value, as well as the principal location of the process of valorisation”.

My approach of analysing digital capitalism stands in a rich tradition of Marxist theory where a multitude of concepts such as the general intellect, the scientific and technological revolution, post-industrial capitalism, post-industrial socialism, immaterial labour, cognitive capitalism, etc. have been coined. One can, of course, spend lots of time engaging with and criticising each of these concepts. The important point is, however, that within Marxist theory, a theoretical and analytical strand has emerged that is focused on the roles that digital media and digital communication play in and beyond capitalism. My works are a contribution to this type of Marxian analysis and theory construction.

Why do I suggest the use of the term “digital capitalism”? Aren’t there other, better concepts? There is indeed a multitude of critical concepts that theorise and analyse the role of digital technologies in capitalism. On the one hand, they include notions such as data capitalism, platform capitalism, high-tech capitalism, informatic capitalism, cybernetic capitalism, media capitalism, cyber-capitalism, or virtual capitalism. On the other hand, there are notions such as cognitive capitalism, knowledge capitalism, semio-capitalism, communicative capitalism, intellectual capitalism, or mental capitalism.

The first series of notions is focused on technological structures, i.e., objects. In contrast, the second series of notions is focused on ideas and culture, i.e., subjectivity. Primarily employing one of these terms therefore tends to solve the social theory problem of what roles structures and practices play in society in favour of either objects (structures, technologies) or subjectivity (ideas, practices). There is, however, a dialectic of structures and practices: Structures condition, enable, and constrain practices that result in the production and reproduction of social structures that again condition, enable, and constrain practices that again produce and reproduce structures, etc. ad infinitum.

The notion of “digital capitalism” is not automatically superior to any of the concepts just mentioned. They all have in common that they analyse the continuities and discontinuities of contemporary capitalism in a dialectical manner. In the public and academic debate, the notions of digital labour and digital capital have become relatively widely used in the past fifteen years. The notion of the “digital” in the context of critical analysis therefore has gained a dual, dialectical meaning. It is neither just focused on structures, technologies, and objects nor just focused on practices, humans, and subjects. In the context of capitalism, it rather has both a more subjective and a more objective connotation. Therefore, the notion of digital capitalism is suited to ground a critical-dialectical analysis that allows us to understand the dialectics and antagonisms of digital objects and digital subjects, digital capital and digital labour, digital technologies and digital knowledge, etc. (Fuchs 2022a).

Dialectical thought stresses the simultaneous identity and difference of phenomena, which creates tensions that drive development. One important tension in society is the one between the economic and the non-economic. I use the terms capitalism and digital capitalism not just in respect to the economy, i.e., (digital) production, (digital) distribution, and (digital) consumption. Rather, capitalism is a societal totality, a societal formation (*Gesellschaftsformation*) where the economic and the non-economic, exploitation and domination, class and identity, etc. stand in dialectical relations. Digital capitalism is the digital dimension of capitalism conceived as a societal formation (Fuchs 2022a).

6.2. Manuel Castells: The Network Society and Informational Capitalism

Manuel Castells is a sociologist whose book *The Rise of the Network Society* (Castells 2010b) is one of the most-read and most-cited works about the Internet and society. In May 2023, it had been cited almost 50,000 times⁶.

For Castells, the network society is a society where networks of humans and information networks – such as the Internet – and physical networks through which there are flows of data, commodities, goods, humans, power, money, ideas, and culture “constitute the new social morphology of our societies, and the diffusion of net working logic substantially modifies the operation and outcomes in processes of production, experience, power, and culture” (Castells 2010b, 500)

For Castells, informational capitalism is the economic subsector of the network society. He argues that “the most decisive historical factor accelerating, channeling and shaping the information technology paradigm, and inducing its associated social forms, was/is the process of capitalist restructuring undertaken since the 1980s, so that the new techno-economic system can be adequately characterized as *informational capitalism*” (18).

⁶ Data source: <https://scholar.google.com/>, accessed on May 22, 2023.

Castells speaks of informationalism as a new mode of development. “Each mode of development is defined by the element that is fundamental in fostering productivity in the production process” (16). “In the new, informational mode of development the source of productivity lies in the technology of knowledge generation, information processing, and symbol communication. [...] what is specific to the informational mode of development is the action of knowledge upon knowledge itself as the main source of productivity [...]. Information processing is focused on improving the technology of information processing as a source of productivity, in a virtuous circle of interaction between the knowledge sources of technology and the application of technology to improve knowledge generation and information processing: this is why, rejoining popular fashion, I call this new mode of development informational, constituted by the emergence of a new technological paradigm based on information technology” (17).

For Castells, capitalism is a techno-economic system. In contrast, for Marx, it is a formation of society (*Gesellschaftsformation*) that extends beyond the economy into politics and culture. Castells, therefore, limits the notion of informational capitalism to the economy and sees it as a subdomain of the network society. What he terms *the mode of development* is in Marxist theory often characterised as the technical aspect of the productive forces. But the productive forces also contain labour-power that humans utilise in the production process in order to create new products with the help of the instruments and objects of labour. Castells does not justify why he uses the term “mode of development”. Given his focus on technology when talking about this mode, the term creates the impression that technology determines the development of society.

Constricting the notion of (informational) capitalism to the economy, Castells requires another term for characterising society. He has chosen the notion of the network society. In a nutshell, the notion of “the network society” is troubling because it is uncritical. Everyone associates something positive with the network society. The concept is troubling because it does not trouble anyone. It has functioned as an ideology that has helped to justify capitalism and its inequalities. We do not automatically associate exploitation, inequalities, alienation, power asymmetries, etc. with the term “network society”. But we do have such negative associations when we hear someone talking about “capitalism”.

In the 1990s, there was lots of discussion about the emergence of a global society. The concept of the network society is Castells’ version of globalisation theory. For him, the network society is “a new society” (Castells 2010a, 372). Capitalist society has been undergoing certain deglobalisation tendencies and efforts:

- During the COVID-19 pandemic, the lack of supply of protective gear has led to a certain questioning of global outsourcing.
- The COVID-19 crisis has included a supply chain crisis that has affected the availability of goods such as drugs, furniture, and electrical appliances. As a consequence, economic globalisation has been put into question.
- Russia’s invasion of Ukraine, Putin’s use of oil and gas as weapons, and the increasing political polarisation between China and the USA have led to certain economic deglobalisation and insourcing efforts.
- Neo-Keynesian and socialist politics have put more emphasis on regulating and limiting the power of global capital and capital in general.
- New nationalisms have advocated national capital against global capital.

Given deglobalisation tendencies and efforts, following Castells's logic one would have to again speak of the emergence of a "new society". Why should, however, a "new society" have developed twice within thirty years? Perhaps there is no new society, but just a dynamic evolution of capitalist society where new qualities emerge out of crises.

25 years after its first publication, in a reflection on his book *The Rise of the Network Society*, Castells (2023) admits that he was too techno-optimistic and uncritical about the liberating potentials of the Internet: "I must confess that in this case, the researcher that I fundamentally am was contaminated by the romantic enthusiasm of the libertarian culture of Silicon Valley. [...] All future development of the theory must integrate this diversity of uses of technology in a systemic form" (Castells 2023, 942, 943).

Given this insight, it would be a logical consequence for Castells to abandon the network society concept. He does, however, hold on to it and continues to claim that we live in the network society: "The network society is the social structure of our age, the Information Age, as the industrial society was the social structure of the Industrial Age. It is a global social structure, and so it refers to all societies, albeit with extreme cultural and institutional diversity. It does not supersede capitalism. As it was the case with the industrial society, the network society underlies capitalism as well as other possible forms of social organization" (Castells 2023, 941). Castells continues to see capitalism as an attribute of the network society.

The alternative approach suggested in my own work is that capitalism is not a sub-concept of another sociological concept but that it is the supra-concept under which other concepts are subsumed. With the rise of the Internet and a new round of globalisation since the 1970s, networking logic has indeed become more important in capitalism. But this does not justify claiming that we live in a "new society" (Castells 2010b, 13, 247, 428, 429, 460). Digital capitalism is old and new at the same time. It preserves class structures and domination by transforming the economy, politics, and culture through the logic of networks and digitalisation.

6.3. Shoshana Zuboff: Surveillance Capitalism

Shoshana Zuboff is a professor of business administration who is known for her work on surveillance and smart machines. In her book *The Age of Surveillance Capitalism*, Zuboff (2019, 7) characterises contemporary societies as "surveillance capitalism", a term whereby she understands a "new economic order that claims human experience as free raw material for hidden commercial practices of extraction, prediction, and sales" and a "parasitic economic logic in which the production of goods and services is subordinated to a new global architecture of behavioral modification". Zuboff assumes there is a dualism of labour and experience: "Instead of labor, surveillance capitalism feeds on every aspect of human experience" (9). "Surveillance capitalism's products and services are not the objects of a value exchange" (10). She speaks of "behavioural surplus" that is independent of labour and argues that surveillance capitalism "births a new species of power that I call *instrumentarianism*. [...] the goal now is to *automate us*" (8). Zuboff argues that "surveillance capitalism is a new actor in history" (14).

Economic surveillance is certainly an important aspect of the capital accumulation model of many transnational digital corporations such as Facebook. Surveillance scandals such as Edward Snowden's revelations and the Cambridge Analytica scandal have shown how surveillance is an important aspect of the interaction of the power of capitalist corporations that belong to the digital industry and state power. But surveillance is not the only and not the primary feature of capitalism and digital capitalism.

There are aspects of digital capitalism that Zuboff does not discuss. For example, the exploitation of information-producing labour and digital labour; the governance of information in the realm of politics; the spread of fake news, post-truth, as well as authoritarian and fascist ideas on the Internet. Surveillance is one of the means to advance exploitation, control/domination, and manipulation/ideology in capitalism, but it is not omnipresent in every aspect of the contemporary digital world.

The notion of digital capitalism better characterises what is going on in contemporary society than the category of surveillance capitalism. Digital capitalism is a still relatively novel dimension of capitalism and capitalist accumulation processes. It is an important topic of research that requires an interdisciplinary critical approach to social research.

Surveillance capitalism is a system, which implies that it cannot be a “new actor”. Only humans act. Structures and systems are not human and therefore cannot act. Comparable to Castells, who presents networks as actors, Zuboff says that systems are acting. The overseeing of slaves, Taylorist time and motion studies, etc., were also methods of surveillance used in class societies and capitalism for the extraction of surplus-labour. Surveillance is not new, but part of class societies. But if surveillance has existed in all types of capitalism, then the term “surveillance capitalism” is a pleonasm.

There is a lack of focus on the analysis of digital labour, surplus-value production, and the exchange value of human subjectivity and digital experience in Zuboff’s approach. She underestimates the role of labour in capitalism. A capitalism that is independent of labour does not exist. In the social factory, every aspect of human experience has become labour. Capitalism exploits experience, subjectivity, and communication as labour. Surveillance is one of the tools of class society.

Instrumental reason is an aspect of all types of class society. In the *Dialectic of Enlightenment*, Horkheimer and Adorno (2002, 29) point out that in class society reason exists in the form of “instruments of power – language, weapons, and finally machines”. In capitalism, such instruments of power include the bourgeois economy, positivism, the capitalist machinery, ideology, and the culture industry. “Reason serves as a universal tool for the fabrication of all other tools [...] Reason’s old ambition to be purely an instrument of purposes has finally been fulfilled” (23). In the capitalist economy, there is the instrumentalisation of human labour. The nation-state is a form of political instrumentalisation. It instrumentalises human decision power. Ideology instrumentalises human consciousness. Economic, political, and ideological instrumentalisation is characteristic of class society, not just of what Zuboff terms surveillance capitalism. What is new is that when society becomes a social factory, instrumentalisation reaches wide realms of society and human experience.

Just like Castells cannot make a convincing argument for the claim that we live in a network society, Zuboff’s idea that we live in a surveillance society is equally unconvincing. Another term that has been suggested for characterising the role of the digital in society is platform capitalism.

6.4. Nick Srnicek: Platform Capitalism

Nick Srnicek is a researcher who works on the digital economy. He is the author of the book *Platform Capitalism* (Srnicek 2017) where he argues that contemporary capitalism is a platform capitalism.

For Srnicek, platform capitalism is an economy that is based on capital’s use of Internet platforms for data extraction: “in the twenty-first century advanced capitalism came to be centred upon extracting and using a particular kind of raw material: data”

(39). “Just like oil, data are a material to be extracted, refined, and used in a variety of ways” (40). Platforms “became an efficient way to monopolise, extract, analyse, and use the increasingly large amounts of data that were being recorded” (42-43). Platforms “extract data from natural processes (weather conditions, crop cycles, etc.), from production processes (assembly lines, continuous flow manufacturing, etc.), and from other businesses and users (web tracking, usage data, etc.). They are an extractive apparatus for data” (48).

Srnicek makes some claims that can be found in neoliberal mouthpieces. In May 2017, *The Economist* (2017) 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”. Google, Amazon, Apple, Facebook, and Microsoft would be “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 (Gharib 2018). 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”. 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”.

To argue that data is the new oil presents technology as a subject that acts (“oil changes, drives cars”, 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 problem is that such arguments are a form of 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.

Platforms are systems and technological structures. Srnicek’s characterisation of contemporary society as “platform capitalism” where data are of central importance is a structuralist approach that does not include humans and their practices in the main category used for characterising society. While platforms are systems, the notion of the “digital” entails both systems and practices, structures and actions, digital technologies and digital practices, digital capital, and digital labour. Consequently, the words “labour” and “work” do not prominently feature in *Platform Capitalism*. Consequently, Srnicek (2021) also argues that the use of Facebook and Instagram is not productive, value-producing labour. For Srnicek, only wage-labour is productive, which implies that also housework is not productive, whereby he denies a key argument made by Marxist Feminists (Jarrett 2016).

Other than the notion of platform labour, the notion of digital labour allows us to both focus on digital capital and digital labour as well as on digital platforms and digital practices.

The result of the discussion of Castells's notion of the network society, Zuboff's concept of surveillance capitalism, and Srnicek's notion of platform capitalism are that all three do not adequately characterise contemporary society. All three concepts have a narrow concept of capitalism that is limited to the economy. They are structuralist in nature and present systems as actors. They are too technology-centred. In contrast, the notion of digital capitalism as conceived in this paper and related works is based on dialectics of subject/object, capital/labour, economy/society, system/production, structures/practices, etc.

In the next section, we will focus on a forgotten concept in the analysis of digital capitalism: violence.

7. Digital Capitalism and Violence

7.1. Violence and Crises of Global Capitalism

The rise of digital capitalism has occurred in a time of successive and intersecting crises.

The 21st century has so far been a century of many crises. It started with the political crisis following 9/11 that was characterised by a spiral of violence between war and terror. In 2008, a financial crisis hit the capitalist world economy. In many parts of the world, hyper-neoliberalism was the political response. It put in place austerity measures and cuts of social expenditures. Neoliberal capitalism as the dominant form of capitalism has since the 1970s increased inequalities. The result was a social crisis. The hyper-neoliberal responses to the financial crisis intensified the social crisis. The second decade of the 21st century also saw an increase in humanitarian crises as a consequence of wars, natural disasters, climate change, and global inequalities. The escalation and interaction of crises have continuously polarised societies. As a consequence, we have seen the rise and intensification of new nationalisms, authoritarianisms, and fascisms, the spread of post-truth politics, online fake news, online echo chambers, online hatred featuring bullying and death threats, coup attempts, the radicalisation of authoritarianism, the proliferation of the friend/enemy-scheme, and threats to use weapons of mass destruction such as atomic bombs.

The COVID-19 pandemic resulted in multiple interacting crises: a health crisis, an economic crisis, a political crisis, a cultural crisis, a moral crisis, and a global crisis. It further polarised societies politically. A new division between COVID-deniers who opposed lockdowns and held an individualist notion of freedom and those who favoured lockdowns based on a social concept of freedom emerged.

Russia's war of conquest against Ukraine has violated international humanitarian law and has further polarised world politics into opposing camps and a new Cold War. On the one side of this conflict are actors such as the USA, the EU, and the UK. On the other side, there are China and Russia whose leaders present their countries as strategically aligned. The biggest danger is that this conflict escalates into a new world war. Such a war could be a terminal war that results in the use of nuclear bombs. The use of such weapons would destroy humanity and life on Earth. Escalating interacting crises have brought humanity to the brink of its self-destruction, ultimate violence. Violence therefore is the most pressing problem humanity faces today. When theorising and analysing (digital) capitalism we therefore should look at how (digital) capitalism and (digital) violence are related.

The critical theorist Sylvia Walby (2015) argues that the 2008 crisis "was a result of a failure in the governance of finance" (3) and the lack of "democratic control over finance" (161). According to Walby, the crisis cascaded into an economic crisis that

resulted in a global recession, a fiscal crisis of the state that advanced austerity and neoliberalism, and a political crisis where the trust in governments was undermined and there is the danger that the crisis cascades “from a political crisis to a democratic crisis, with political mechanisms no longer able to channel disagreements, thereby leading to violent conflict” (7). She argues that continued neoliberalism is likely to result in an “increase in violence by individuals, protesters and states” (179) while the alternative is the becoming-hegemonic of “a reformed social democracy” that is more likely to prevent wars and reduce violence. What is implicit in Walby’s analysis is that the cascading of authoritarian politics and socio-economic inequalities in the world increases the likelihood of a large war, potentially a World War. Such a war could easily mean the end of humanity and the end of life on Earth.

Violence in contemporary digital capitalism has not-yet been adequately understood and theorised. I can here only outline some basic foundations of theorising violence in digital capitalism.

7.2. What is Violence?

Various social thinkers such as Johan Galtung (1990), Pierre Bourdieu (1991), and Slavoj Žižek (2008) argue for an extended concept of violence that goes beyond physical violence. They distinguish between direct, physical violence, structural and systemic violence, cultural-ideological violence, symbolic violence, subjective violence, and objective violence. The feminist social theorist Sylvia Walby is one of the most vocal critics of the extended notion of violence (Walby 2009; Walby and Towers 2017, 2018; Walby et al. 2017). One of her arguments is that the extended notion is inflated and that such an inflation trivialises the physical and sexual violence that many women experience. Broad definitions of violence are often not discernible from notions such as power, domination, and coercion. Notions such as cultural and symbolic violence are often synonymous with the notion of ideology.

Violence is the intentionally caused, intended or threatened physical harm of a human being. Psychological threats to kill or seriously injure someone are preforms of violence. Violence is the ultimate and most brutal form of reification. Reification means power relations where humans are treated like things, reduced to the status of things, and used as instruments. Reification denies and robs humans of their human qualities. Reification is dehumanisation. And dehumanisation opens opportunities for violence.

The French philosopher Simone Weil has drastically pinpointed violence as reification. She says that violence means the turning of human beings “into a thing in the most literal sense: it makes a corpse out of him” (Weil 2005, 183). Violence does not necessarily cause death, but it always causes harm that in intensified form can lead to death. There is violence that aims to hurt the victim and violence that aims at killing victims. There is a difference between damaging violence and deadly violence.

Violence can stem from a variety of motivations, with economic violence being driven by the perpetrators’ desire to seize wealth, political violence motivated by the desire to attain or expand political power, and cultural violence driven by the perpetrators’ worldviews, identities, and ideologies. In cases of everyday violence, these categories can intersect, resulting in multiple motivations and interests contributing to acts of violence.

Violence involves an actor as the perpetrator and another actor who is the victim of violence. Violence, therefore, is a social relation. There are three basic types of actors: an individual, a social system (social group, organisation, institution), or a whole society. There are ten varieties of violence depending on who the perpetrator is and who the victim is:

- 1) an individual's violent attack on themselves (suicide, self-harm);
- 2) an individual's violent attack on another individual;
- 3) an individual's violent attack on a social system;
- 4) an individual's violent attack on a society;
- 5) a social system's violent attack on an individual;
- 6) a social system's violent attack on another social system;
- 7) a social system's violent attack on a society;
- 8) a society's violent attack on an individual;
- 9) a society's violent attack on a social system;
- 10) a society's violent attack on another society.

7.3. Violence in Capitalism

Slavery and feudalism are modes of production that are based on violence as a major means the dominant class uses for exploiting and oppressing the working class. The slave is the private property of the slave-owner, which means absolute dehumanisation and the reduction of humans to the status of things. The slave-owners can kill the slave without facing legal consequences. Slave-owners are legally allowed to treat slaves like things, which enables extreme exploitation of their labour.

The formation of capitalism was based on what Marx terms primitive accumulation, the use of "blood and fire" (Marx 1867/1990, 875) for creating capitalist means of production and wage-labour. Violence was used for driving small property owners from their land, turning common land into private property, and creating wage-labour. Violence was also used as part of colonialism that robbed resources and humans from the Global South in order to create means of production that enabled the formation and development of capitalism. Capital and capitalism come into existence "dripping from head to toe, from every pore, with blood and dirt" (Marx 1867/1990, 926). It is a mistake to assume that violence is a necessary means for a revolution. Non-violent revolutions such as, for example, the anti-colonial revolution in India that resulted in India's independence from the British Empire and the 1989 revolutions in Eastern Europe that brought about the end of the Soviet Union show that there are also non-violent revolutions and transitions. Marx's (1867/1990, 916) formulation that violence "is the midwife of every old society which is pregnant with a new one" should therefore not be interpreted as an absolute statement that applies to every revolution.

The creation of wage-labour was based on a shift from violence to structural coercion and management as means of control. The formal use of violence was legally shifted to the nation-state that obtained a formal legal monopoly over the means of violence. Informal use of violence continued to exist both inside and outside of the economy. Coercion describes the use of means or the threat to use means that force humans to behave in certain manners that others define. Violence is one form of coercion. In capitalism, one major form of coercion is the "silent compulsion of economic relations" (Marx 1867/1990, 899). Workers in capitalism legally own themselves, their bodies and their minds. Coercion is institutionalised in labour markets and commodity markets that together compel humans to work for the capitalist class so that they obtain money that they need in order to buy commodities as means of subsistence so that they can survive.

The question is raised whether famine and poverty in poor countries can be considered violence, given that violence typically involves actors who inflict harm on victims. Global capitalism is a societal system that is dependent on human practices and is composed of various structures, such as markets, nation-states, and ideologies. Poverty has complex causes and is a result of a global class system that creates power

relations between the rich and the poor. Those who support a possessive-individualist concept of freedom consider poverty and strong wealth inequalities as intentional and rational features of society, rather than a result of unintentional circumstances. Therefore, the class system's violence is intentional, as it upholds an ideology that values the freedom of individuals to become wealthy without limits, which leads to economic violence and creates poverty intentionally. The actor causing famine is in the last instance the global class of the rich and those governments, parties, and politicians that uphold and justify a class system that denies humans the necessities of life including healthy food, drinking water, shelter, health care, etc.

Violence has not ceased to exist in capitalism, which is why authors such as Rosa Luxemburg (1913/2003) and Maria Mies (1986) speak of ongoing primitive accumulation in capitalist society. Paraphrasing Marx's (1867/1990, 926) insight that capitalism emerged from "blood and dirt", Luxemburg (Luxemburg 1913/2003, 433) writes: "'Sweating blood and filth with every pore from head to toe' characterises not only the birth of capital but also its progress in the world at every step, and thus capitalism prepares its own downfall under ever more violent contortions and convulsions". This means that primitive accumulation is for Luxemburg not just the origin of capitalism but an ongoing capitalist process.

Ongoing primitive accumulation involves warfare used for the conquest of territories that are spheres of accumulation and political influence and commodity markets, the continued existence of slavery; the use of violence for the exploitation of the unpaid or low-paid labour of houseworkers, illegal migrants, slaves, and precarious workers; wars of conquest that aim at the control of spheres of political, economic and ideological influence; and the use of violence for the robbery, dispossession, and expropriation of natural and social resources that are turned into capitalist means of production. Expropriation turns resources such as labour-power, land, nature, the body, organs, etc. into capitalist means of production by other means than the wage-labour-market. It works by "confiscating human capacities and natural resources and conscripting them into the circuits of capital expansion. The confiscation may be blatant and violent, as in New World slavery; or it may be veiled by a cloak of commerce, as in the predatory loans and debt foreclosures of the present era" (Fraser 2022, 34).

Luxemburg (1913/2003, 432) stresses that war is a particularly important means of ongoing primitive accumulation: "The other aspect of the accumulation of capital concerns the relations between capitalism and the non-capitalist modes of production which start making their appearance on the international stage. Its predominant methods are colonial policy, an international loan system – a policy of spheres of interest – and war. Force, fraud, oppression, looting are openly displayed without any attempt at concealment, and it requires an effort to discover within this tangle of political violence and contests of power the stern laws of the economic process".

Capitalist world society has resulted in two World Wars that were wars about the global control of economic resources, political power, and influence as well as numerous other wars. In capitalist society, the potential for wars and World Wars arises from capitalism's competitive structures that are built into the logic of accumulation so that individuals, groups, classes, and states compete for the control of economic, political, and cultural power. The control of land and economic property plays a particularly important role in this context. The formation of the modern nation-state has been associated with the formation of state apparatuses that hold a legal monopoly of violence, especially armies, the police, the criminal justice system (that in a significant number of nation-states uses the death penalty), and secret services. Armies are set up and there is armament so that nation-states have means of destruction and violence at

their disposal for the defence of their political and economic resources bounded within the nation-state. In modern nation-states, violence is institutionalised in coercive state apparatuses. This has also led to the capitalist arms industry that produces means of destruction that are sold to accumulate capital. The arms industry's capital is a capital of violence and death, it is capital that is set to kill and destroy, to produce death.

The globalisation of capitalism and the rise of neoliberalism since the 1970s have also advanced the violent dispossession of resources from the world's poor and the use of violence as means of management and control in Fordist manufacturing factories such as Foxconn where commodities are produced that are sold on the world market. Global neoliberal capitalism has resulted in precarious forms of labour that are unprotected and insecure, which exposes such workers to the capitalist use of violence as means of management and violence that makes them produce more surplus-value in less time. Housewifisation means that many workers have turned into precarious workers in neoliberal capitalism and face unfree working conditions that have been characteristic of houseworkers for a long time (Mies 1986). As a consequence, such workers are prone to having to take on labour where violence is used as a means of management.

Where there is class, there is inequality. Given socio-economic inequality and antagonistic societal structures, there is a certain level of violent crime and violent property crime. Class structures make some rich while depriving others. They make some happy and others isolated, unhappy, aggressive, and violent. Class societies are violent societies.

Violence is also an ideology. Moral panics are public ideological campaigns against certain groups that are presented as a social problem, dangerous, and violent. Tabloid media and racism have played a particular role in constructing scapegoats as part of moral panics. Violence as ideology distracts from the actual complex causes of social problems that are grounded in the antagonisms of capitalist society.

Capitalism's economic cell form is the commodity. The capitalist economy is an immense production of commodities that are sold in order to advance the accumulation of money-capital. Commodities and money-capital are the two main economic structures of capitalist society. In order to accumulate money-capital, power, and hegemony, capitalism requires the reproduction of class relations and relations of domination. In such relations, humans are treated like things, they are turned into instruments that serve the purpose of accumulation. They are reified. Capitalism is an instrumental system of reification. The social relations that humans constitute disappear behind the dominance of things and structures such as commodities, money, the state, and ideology. Marx (1867/1990, chapter 1: section 4) spoke in this context of the fetishism of the commodity.

In capitalist society, fetishism is not restricted to the economy, but extends into the totality of society. The capitalist state instrumentalises citizens. Ideology instrumentalises the human mind. Capitalism is not just a system of accumulation, but a system of accumulation that uses various forms of instrumentalization as societal means of production and societal means of accumulation. In capitalism, humans must in class relations and relations of dominated be treated as things in order to make accumulation possible. There are both violent and non-violent forms of reification. Dominant groups resort to violence as means because they are ideologically convinced it is the best means to use or they think violence as means of accumulation is more efficient and effective than non-violent means. In capitalist society, we have therefore again and again seen the use of violent means, including warfare and slavery, as means of accumulation. Other media/means of accumulation include, for example, economic

means such as markets, political means such as laws and contracts, and cultural means such as ideology. The state is an institutionalised form of politics that monopolises the legally justified use of violence. In some cases, state power is direct violence, as in the case of police violence, military action, and the death penalty. In other cases, where laws that do not result in physical harm are applied and executed, the state legislates in a non-violent manner that is based on and founded on the state as the institutionalised monopoly of the use of violence. Ideology similarly has a complex relation to violence. Ideology is not violence itself. But certain ideologies, including anti-Semitism, racism, and fascism, construct particular groups as enemies who are blamed for society's problems and whose extermination is suggested, promoted, and legitimated. The communication of violence, such as the call for the use of violence, can turn into actual violence that in turn may result in the communication of violence in the form of the ideological legitimization of violence.

The critical theorist Moishe Postone stresses that fetishism is deeply built into capitalist society: "*The structure of alienated social relations which characterize capitalism has the form of a quasi-natural antinomy in which the social and historical do not appear*" (Postone 1980, 109). The naturalisation of things as natural, necessary, and eternal is built into the structures of capitalism. When social relations and human practices disappear behind things, voids are created that make the causes of society's problems untransparent. When class relations and structures of domination appear as natural, it is not immediately evident what the causes are of poverty, overwork, deindustrialisation, unemployment, social and economic crises, inflation, natural disasters, etc. This void is often filled by artificial, fictive, illusionary stories that invent causes of society's problems. The result are ideologies that declare that certain groups or individuals, such as the poor, the unemployed, migrants, Jews, minority groups, etc. are the cause of these problems. The fetish structure of capitalism leads to the creation of ideology that often contains the communication of violence that can turn into actual violence in the form of genocide, pogroms, terror, industrial mass murder, etc. Violence has its material foundation in the fetish structure of capital and capitalism that in turn is the consequence of the logic of instrumentalization and reification.

There lies a danger in interpreting history as developing independent of human collective practices. Such assumptions underestimate the dialectic of structural conditions and political action, or, as Marx (1852, 103) says, that humans "make their own history, but they do not make it as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past". Such an underestimation can be found in Hegel's concept of history.

Hegel says that spirit is freedom, the lack of external dependence of humans, "self-sufficient being" (Hegel 1998, 20). When Hegel says that "freedom is the only truth of Spirit" (Hegel 1998, 20), then a sympathetic reading can interpret him as saying that humans have the capacity and a certain desire for freedom so that in history there have again and again been struggles for freedom. Hegel, however, in his idealist fetishization of spirit that underestimates the importance and relative openness of social struggles, goes further and formulates a functionalist concept of history that is also known as what he terms "*the Cunning of Reason*" (35). He thereby means that in history, besides all catastrophes and setbacks, there is the necessary progress of freedom. "World history is the progress in the consciousness of freedom – a progress that we must come to know in its necessity" (32). Hegel not just says that humans throughout history become more conscious of freedom but also that they realise ever more freedom: "World history, as we saw, presents the development of consciousness, the

development of Spirit's consciousness of its freedom, and the actualization that is produced by that consciousness. This development entails a gradual process, a series of further determinations of freedom, that arise from the concept of world history" (67).

Given that for Hegel there is through and despite setbacks a long-time automatism of freedom in history, he sees violence, warfare, and misery as necessary sacrifices that humans have to make in order to advance freedom, which why is he speaks of the "altar of the earth": "It is this final goal – freedom – toward which all the world's history has been working. It is this goal to which all the sacrifices have been brought upon the broad altar of the earth in the long flow of time" (22).

The problem of such a concept of history is that it encourages humans to see catastrophes, violence, war, genocides, industrial mass murder, etc. as inevitable and long-term signs of progress that can and should not be resisted. Resistance to Auschwitz is in such a view discouraged. Theodor W. Adorno (2004) rejects such a deterministic and functionalist concept of history. He stresses that the reality of history is that class societies have produced means of destruction and annihilation: "Universal history must be construed and denied. After the catastrophes that have happened, and in view of the catastrophes to come, it would be cynical to say that a plan for a better world is manifested in history and unites it. [...] No universal history leads from savagery to humanitarianism, but there is one leading from the slingshot to the megaton bomb" (Adorno 2004, 320). Given that history and capitalism's negative dialectic have resulted in Auschwitz, Adorno formulates a New Categorical Imperative: "A new categorical imperative has been imposed by Hitler upon unfree mankind: to arrange their thoughts and actions so that Auschwitz will not repeat itself, so that nothing similar will happen" (Adorno 2004, 365). In the light of fascism, anti-fascist praxis is of highest importance.

Formulated in a different way, Marx reminds us that history and structures do not act and that only humans make history, which implies that history is relatively open: "*History does nothing*, it 'possesses *no* immense wealth', it 'wages *no* battles'. It is *man*, real, living man who does all that, who possesses and fights; 'history' is not, as it were, a person apart, using man as a means to achieve *its own* aims; history is *nothing but* the activity of man pursuing his aims" (Marx and Engels 1845, 93). Humans act collectively in politics and at certain moments change the course of history. Given the importance of human praxis, history is not determined, but relatively open, which also implies that war, annihilation, mass murder, genocide, and violence in general are not inevitable, but avoidable. They are not necessary features of humanity and society.

7.4. How can Violence and War be Limited?

At the international level, institutions have been established that aim at limiting the use of violence and war as means of politics by fostering political communication. After the experience of two world wars, the United Nations was founded in 1945 with the defined goals to "maintain international peace and security", "develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace", "achieve international co-operation" (United Nations Charter, article 1, <https://www.un.org/en/about-us/un-charter/chapter-1>). There were 51 founding members of the UN. In 2023, it grew to 193 member states.

The Chinese philosopher Tingyang Zhao (2016) is critical of both Kant's concept of perpetual peace and Habermas' discourse ethics (chapter 16). He argues that Kant's idea of a confederation of free, democratic states might be able to prevent war among democratic states but has problems preventing wars and conflicts between such states

and others. Habermas argues that international conflicts can be solved by “modes of dialogue that are fully rational and entered into under conditions of full equality, sincerity, and honesty” (196). Zhao argues that with “respect to those things that involve our most fundamental interests, it doesn’t matter how rational the dialogues that we engage in because none of them can lead to effective conflict resolution” and that “mutual understanding cannot guarantee mutual agreement” (197). The United Nations would stand in this Kantian tradition. The discourses it organises for overcoming conflicts would be based on “dialogue and mediation” that “can to some degree help to diminish warfare, but these methods alone have never been able to decrease the contradictions that give rise to reasons for conflict in the first place” (199). The “UN is ultimately an organization lacking in effective power on a global scale” (199).

It is certainly important to stress that communication and discourse alone do not solve all political-economic conflicts. Rather, when there are fundamental disagreements over the control of territory, economic value, political power, and worldviews, words that do not come along or result in the redistribution of resources can easily fail as means of conflict resolution. Diplomacy, however, as discursive means does not stand outside of the redistribution of material resources. Zhao underestimates the importance of communication. For example, in peace negotiations in a war discourse is used as the means for trying to agree on how strategic resources are distributed in a manner so that all involved conflict parties agree to a compromise or solution that they find acceptable and makes them put down their weapons. In addition, means of communication such as the Internet are themselves material resources, as Zhao stresses himself, that are part of questions of war and peace. Think, for example, of cyberwar, cyberespionage, and fake news as means of trying to manipulate elections, ideology online, etc. Means of communication do not stand outside but are part of political-economic relations.

Stephen C. Angle (2012) agrees with Zhao (2016) that an international system is needed that helps to advance universal benefits, advantages for everyone, and universal compatibility where all humans and societies can co-exist. But he rejects dismantling “the existing institutions” of international politics, especially the United Nations, and to “start from scratch” (79). It would not be possible to create global universal institutions out of nothing. “While the United Nations, the Universal Declaration of Human Rights (UDHR), and the many human rights treaties that have been negotiated since the Second World War are not perfect, they do collectively represent the kind of process that a concern for all-under-heaven would demand” (89). As imperfect and volatile as the UN is, it is the best starting point for building an international peaceful and universally beneficial order. Such an order requires a political economy that is built on the principles of international co-operation and mutual benefits.

Walby (2009) shows that an increase in inequalities tends to increase violence. She summarises her insights: “Those countries that are more unequal and less democratic, the more neoliberal countries, have higher rates of violence of all forms – from interpersonal to the criminal justice system to the military – than do those countries that are less unequal, more fully democratic, and more likely to be social democratic” (217). “There are higher levels of violence in neoliberal countries than in social democratic ones” (192). “Democracy provides important limits to war. Democracy is linked to the extent of use of military force; military power is used less in a mature democracy than in other regimes; mature democracies rarely if ever initiate wars against each other [...]. This may be because of the nature of political culture in a democracy [...]. Further, democracies can provide routes by which those whose lives are put at risk by military engagement can find a political voice and effective resistance. These processes can

link domestic and external politics. An increase in the proportion of regimes that are democratic should thus be associated with a decrease in violent warfare” (206-207).

Walby (2009) analysed statistical data on the connection between the prevalence of violence in society and socio-economic and political factors. For measuring violence, she used indicators such as the homicide rate per 100,000 population, the number of prisoners per 100,000 population, or the government expenditure on law and order and the military as percentages of GDP (see table 8.8 on page 298 in Walby 2009). We can summarise the main, very insightful and illuminating findings of Walby’s empirical analysis of violence in society:

“the homicide rate is higher in poorer, less developed countries than in richer countries. [...] There is a positive correlation between homicide and the level of economic inequality as measured by Gini [...] There is a higher rate of homicide in countries that are more economically unequal” (298-299).

“There is a striking set of correlations between the various aspects of violence [...] There is a cluster of phenomena of violence: homicide, prisoners, death penalty, expenditure on law and order and expenditure on the military. If any one of these is higher in a country, then it is likely that the others will be also” (300).

“The higher the level of economic inequality, the more likely a country is to have higher rates of imprisonment and higher levels of military expenditure as a percentage of GDP” (300-301).

Walby shows empirically that (in)equality and the (lack of) democracy influence the levels of violence (311). “Countries that are less equal and less democratic have higher rates of violence; these are characteristics of neoliberal rather than social democratic countries” (311).

One implication of Walby’s analysis is that the increase in inequalities, neoliberalism, authoritarianism, and fascism tend to increase violence and the risk of war. In situations of a social crisis, fascists and authoritarians coming to power or deepening their power pose the risks for the escalation of conflict into wars.

7.5. Digital Violence

The rise of digital technologies and digital capitalism partly stands in the context of warfare. New digital technologies, including the computer and the World Wide Web, have often originated in a military context (Merrin 2019, 46). Digitalisation has contributed to the constant development and sustained profitability of the arms industry. Weapons are not just tools that are situated in contexts where they are used for attacks that aim to kill, harm, destroy, and injure humans. In capitalism, they are also industrially produced commodities that yield profits.

In the Second World War, computers were used for the encryption and deciphering of messages and radar was used as a technology for location, detection, and tracking. Warfare has been one of the factors that have advanced the development of computer technologies. Ever since the Second World War, computing has played an important role in warfare in the form of cyberwarfare, digital surveillance, digital reconnaissance, digital communication in the context of command and control, smart weapons, and public communication.

There are three forms of digital communication and digital mediation in the context of violence: the digital communication of violence, the digital communication about violence, and the digital mediation of violence.

7.6. The Digital Communication of Violence

With respect to the *digital communication of violence*, the crises of capitalism have polarised politics, which has advanced the digital communication of violence, which includes the proliferation of online threats of violence and killings. Such threats are frequently communicated anonymously. Discursive dispute settling fails in such instances. With the intensification and extension of polarisation, nationalism, and fascism in (digital) capitalism, the digital communication of violence has proliferated. Especially far-right individuals, groups, politicians, and parties see violence as an appropriate means of conflict resolution. Their ideology is based on nationalism, the friend/enemy-scheme, and militarism. Therefore, the expansion of digital fascism has resulted in the advancement of the digital communication of violence.

We can define fascism as an anti-democratic, anti-socialist, and terrorist ideology, practice, and mode of organisation. It is based on the combination of several principles: (a) the leadership principle, (b) nationalism, (c) the friend/enemy scheme, and (d) militant patriarchy, which involves idealising soldiers, practising patriarchy, subordinating women, and using war, violence, and terror as political means. Fascism utilises terror against perceived enemies and aims to establish a fascist society by institutionalising these principles. It seeks to mobilise individuals who fear losing property, status, power, and reputation due to societal conflicts. Moreover, fascism plays an ideological role in capitalist and class societies by attributing society's problems to scapegoats, framing them as conflicts between the nation and foreigners or enemies. This diversionary tactic draws attention away from the systemic roles of class and capitalism and the inherent contradiction between capital and labour in societal issues. Fascism often propagates a one-dimensional, one-sided, and personalising "anti-capitalism" that constructs the nation as a political fetish and an antagonism between the unity of a nation's capital and labour on the one side and a particular form of capital or economy or production or community on the other side that is presented as destroying the nation's economic, political, and cultural survival.

7.7. Digital Fascism and Violence

Digital fascism means fascists' digital communication of violence, digital communication about violence, and the digital mediation of violence and war for fascist purposes. Fascism is a particular and terrorist form of right-wing authoritarianism that aims at killing identified enemies using violence, terror, and war.

Digital fascism means that fascists utilise digital technologies such as computers, the Internet, mobile phones, apps, and social media in order to (a) communicate internally so that they co-ordinate the organisation of fascist practices and (b) communicate to the public the leadership principle, nationalism, applications of the friend/enemy-scheme, and threats of violence as well as the propagation of violence, militarism, terror, war, law-and-order politics, and extermination directed against the constructed enemies and scapegoats in order to try to find followers, mobilise supporters, and terrorise constructed enemies.

In digital fascism, fascists use digital technologies for trying to advance violence, terror, and war as means for the establishment of a fascist society. Ideology constructs scapegoats and agitates them online, including socialists and immigrants. The

scapegoats that fascist ideology constructs and against whom it agitates online include immigrants, socialists, liberals, intellectuals, experts, and democrats.

The critical theorist Erich Fromm (1973) argues that fascism has to do with what he terms necrophilia, the fascination with death and the desire to destroy and try to resolve conflicts by violence. Necrophilia is *“the passionate attraction to all that is dead, decayed, putrid, sickly; it is the passion to transform that which is alive into something unalive; to destroy for the sake of destruction; the exclusive interest in all that is purely mechanical. It is the passion to tear apart living structures”* (Fromm 1973, 332).

Necrophilia is also but not exclusively a feature of the character structure of authoritarian and fascist individuals. It is an important aspect and characteristic of fascist groups, fascist organisations, fascist institutions, and fascist societies. Fascists believe in the use of violence and war as common means for conducting politics. The more fascism proliferates in society, the more likely war becomes. “ Militarization and war are associated with the absence of an effective democracy” because in fascist regimes and other dictatorships, “young men and their associates” (Walby 2009, 207) are less likely to resist conscription and civil society has more difficulties resisting the government’s war-efforts. Higher levels of social inequality tend to reduce “the capacity for resistance to war” (Walby 2009, 207). A higher level of poor people makes it more likely that the state succeeds in recruiting poor people into the army by promising to support education and providing a sustainable income.

In the digital age, this means that when fascism proliferates, also digital fascism proliferates. Fascists use a variety of means, including computing, information and communication technologies, for trying to attain their goals. In a society that is shaped by digital technologies, they will therefore make use of digital means for trying to put necrophiliac politics into practice. They will strive to threaten their identified enemies online and develop digital weapons in order to harm and kill those whom they see as enemies. Fascists in the digital age practice the friend/enemy-scheme in many spaces and with many means, including digital spaces and digital technologies.

7.8. The Digital Communication about Violence

The digital communication about violence means that cultural workers produce digital content that represents violence and is communicated to the public who consume and interpret such content. When violence increases in society, the question arises of how journalists should report on violence. There is a difference between the reporting on violence as a spectacle and the reporting on violence in a contextual, dialectical manner that situates violence in society’s antagonisms and the lived experiences of these antagonisms.

There is a variety of representations of violence in the media, such as, for example, violence in movies (horror movies, thrillers, crime movies), violence in music lyrics (death metal, gangster rap), violence against women in pornographic movies, violence in computer games, news reporting on violence and war, etc. One question that arises, again and again, is what impacts representations of violence have on individuals and society. One argument is that the representation of violence in the media and on the Internet causes violence. This is a media-centric and techno-deterministic argument that overemphasises the roles of media and technology in the relationship between media technologies and society. There is also the danger that the argument that the media make individuals, including children and teenagers, violent become part of moral panics that more reflect the fears of adults about their children than actual reality. Another argument is that media representations of violence do not have any effects on individuals and society. This is a relativist argument that denies that culture has some

relevance in society. A third argument is that violence is rooted in society's antagonisms and that the likelihood that individuals and groups who because of their experiences in society's antagonistic structures are prone to be violent might be increased by their frequent consumption of media representations of violence.

7.9. The Digital Mediation of Violence and Digital Warfare

In the *digital mediation of violence*, the perpetrator utilises a digital weapon (system) for trying to kill or damage the health of the victim(s). Both the perpetrator and the victim(s) can be individuals, social systems, or societies. A digital weapon is a digital technology that is used for carrying out attacks that should lead to the killing of human victims or damage to their health.

War is organised, large-scale violence between at least two politically organised groups where at least one group sees the other group as an enemy that should be annihilated in order to realise a particular political interest against the will of this identified enemy. Digital warfare is a particular type of digital mediation of violence. Information warfare means that parties involved in wars produce and circulate information about enemies and in some cases themselves in the context of war. Digital warfare means that digital technologies are utilised in the context of warfare. In digital warfare, there is large-scale violence between at least two politically organised groups where at least one group sees the other group as an enemy that should be annihilated in order to realise a particular political interest against the will of this identified enemy and at least one side uses a digital weapon (system) for trying to kill and damage the health of the members of the other side.

The digital mediation of warfare has resulted in automation tendencies of warfare. The results have been military drones and investments in the development of autonomous weapon systems. Two of the world's most powerful armies, the US and the Chinese military, are heavily investing in AI and robotics in order to create "smart", autonomous weapon systems. At the same time, world politics has become more polarised. It might very well be that autonomous weapons will be used in future wars. The utilisation of such weapons might make such wars and conflicts even more brutal and inhumane. The drive towards the automation of warfare has to do with fears of armies losing soldiers and the interest to minimise an army's risks while maximising its destructive power.

The world has due to escalating crises experienced political polarisation. At the international level, the danger of a new world war has massively increased. A new Cold War has emerged. The major players in this conflict, especially the USA, China, Russia, the EU, and the UK, are heavily investing in armament. The Russian invasion of Ukraine has fuelled the new Cold War, political polarisation, and a new arms race.

In 2021, the world military expenditure stood at a level of US\$ 2.08 trillion and for the first time exceeded US\$ 2 trillion (source of all data in this paragraph: World Bank Data, <https://data.worldbank.org/>, accessed on March 24, 2023). Measured in terms of its share of the global GDP, world military expenditure from a height of 6.3 percent of the global GDP in 1962 dropped to 3.0 percent in 1990 after the end of the Cold War and in 2021 stood at 2.2 percent. In 1962, with the Cuban Missile Crisis, the Cold War reached a peak where a nuclear war could have broken out. Given the increasing polarisation of world politics in the 21st century where we find a strategic alliance of China and Russia on the one side and NATO on the other side, more and more observers have argued that a new Cold War has developed or is about to develop. If a New Cold War indeed unfolds, the share of military expenditure in the global GDP is likely to increase.

In 2021, the USA, China, India, the United Kingdom, and Russia accounted for the highest share of world military expenditure. Together their military budgets made up 62,8 percent of the world's military expenditure. The USA's share was 38.5%, China's 14.1%, India's 3.7%, the UK's 3.3%, and Russia's 3,2% (data source: World Bank Data, <https://data.worldbank.org/>, accessed on March 24, 2023). Figure 1 shows the development of these five countries' shares in world military expenditure.

The USA has continuously held the largest share of world military expenditures. Since the end of the Cold War, this share has decreased. The most significant development is the rise of China's share from 1.4 percent in 1990 to 14.1 percent in 2021. China is not just the USA's main economic competitor but has also tried to catch up with the USA in the development of its military capabilities.

Russia's invasion of Ukraine in 2022 has impacted world military spending. In 2022, world military expenditure increased by 6.3 percent and stood at US\$2.2 trillion (data source: Military Expenditure in Current US\$, World Bank Data, <https://data.worldbank.org/>, accessed on February 7, 2024), which was 2.2 percent of the global GDP (data source: World GDP in Current US\$, World Bank Data, <https://data.worldbank.org/>, accessed on February 7, 2024). Russia's share of global military expenditure increased from 3.2 percent in 2021 to 3.9 percent in 2022, Ukraine's share from 0.3 percent to 2.0 percent (data source: Military Expenditure in Current US\$, World Bank Data, <https://data.worldbank.org/>, accessed on February 7, 2024). Military escalation of a political conflict has resulted in massive armament.

The new arms race is also a digital arms race. It is unlikely although not impossible that in a highly polarised political world treaties are negotiated that limit the development of new (digital) weapons of mass destruction. If political polarisation continues, then it is very likely that also the investment into and development of robot soldiers used in hybrid armies and autonomous weapon systems that automatically select targets and kill autonomously from human command and control will continue. Future digital weapons are likely to make war more ruthless and brutal. Robots and AI systems do not have morals, doubts, feelings, fears, and empathy. They can be programmed to kill remorselessly. Given the polarisation and escalation of conflicts into wars, it is likely that war-fighting parties choose to develop such systems that kill massively and ruthlessly because they want to utilise and develop any means necessary for winning. Warfare has become more spatially distanced so soldiers today often operate from a distance using semi-automatic weapons systems such as combat drones. For example, in the war in Ukraine, Russia has used Iranian Shahed drones where the target is first selected and programmed by humans and the "kamikaze drone" flies and attacks automatically using GPS.

The more nationalist and fascist authoritarian countries become, and the more fascist leaders of powerful nations emerge, the more likely a large war along with an escalating digital and nuclear arms race that might end humanity becomes. Fascists and authoritarians consider violence and war as appropriate means of politics. When political polarisation reaches a bifurcation point, they are likely to go to war. The proliferation of fascism and authoritarianism in the world is likely to advance (digital) wars and the development of digital weapons that maximise casualties and destruction.

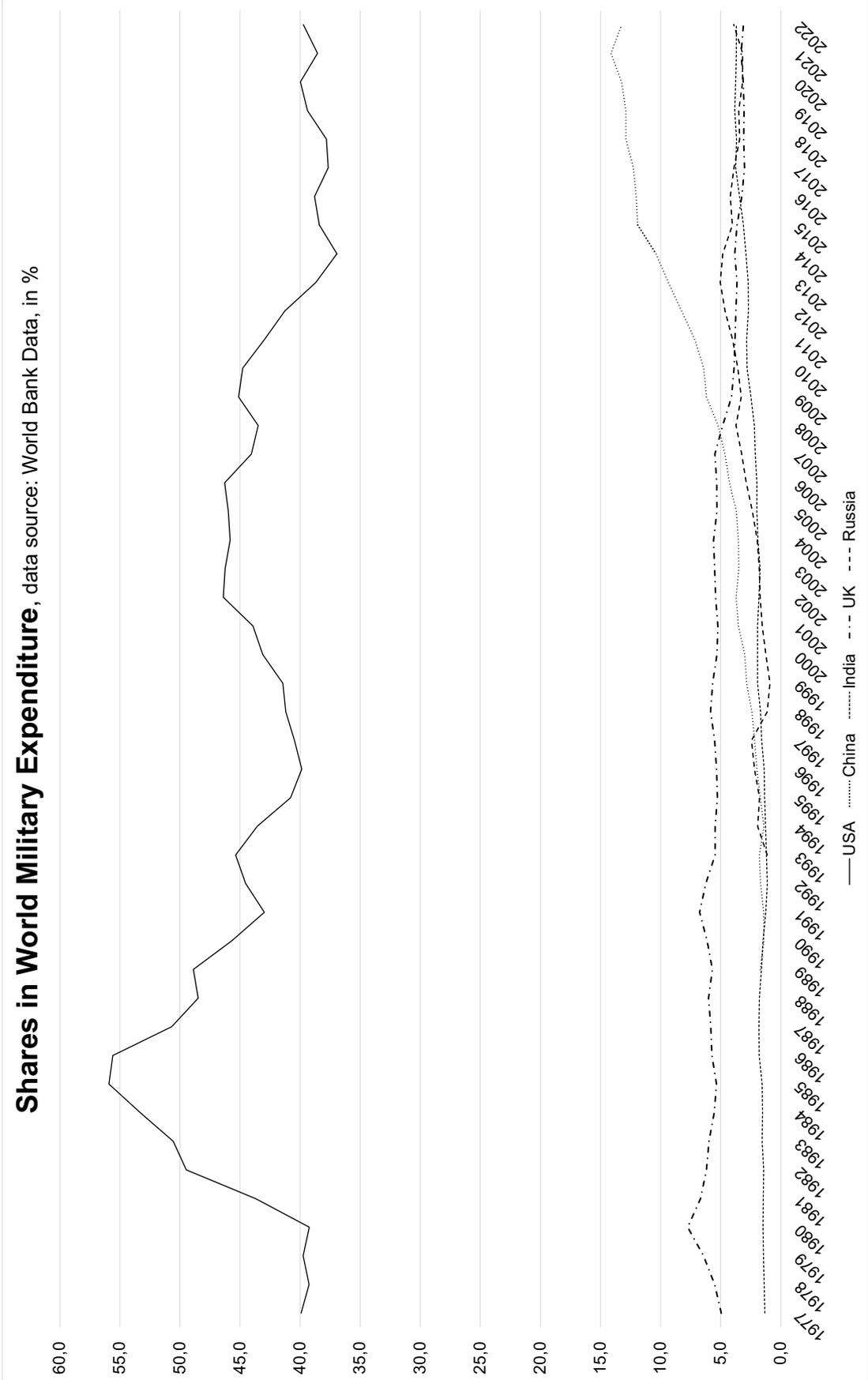


Figure 1: The development of five countries' shares in world military expenditure

8. Conclusion

This paper asked: What is digital capitalism? We want to now summarise the main findings:

- **Capitalism:**

Influential scholars such as Joseph Schumpeter, Werner Sombart, Thorstein Veblen, and Max Weber theorise capitalism as an economic system. In contrast, in classical critical theory, Karl Marx and in contemporary critical theory authors such as Nancy Fraser argue that capitalism is more than an economy. For Marx, capitalism is a formation of society (*Gesellschaftsformation*).

- **Theorising digital capitalism:**

A critical theory of digital capitalism should conceive of digital capitalism as the digital dimension of capitalism as formation of society. Digital capitalism does not just have economic aspects, but also non-economic aspects that interact with and are based on class structures and class relations. Digital capitalism is the dimension of capitalist society where processes of the accumulation of capital, decision-power, and reputation are mediated by and organised with the help of digital technologies and where economic, political, and cultural processes result in digital goods and digital structures. Digital capitalism is an antagonistic dimension of society, a dimension that represents how economic class antagonism and social relations of domination are shaped by and shape digitalisation. For theorising digital capitalism, we can learn from Nancy Fraser that it is important how we look at the dialectics of the economic and the non-economic within the capitalist formation of society when analysing digitalisation.

- **Digital capitalism and other concepts of society:**

Concepts such as the network society, surveillance capitalism, and platform society do not adequately understand the relationship between capitalism and digitalisation. They have a narrow concept of capitalism that is limited to the economy. They are structuralist in nature and present systems as actors. They are too technology-centred. In contrast, the notion of digital capitalism as conceived in this paper and related works is based on dialectics of subject/object, capital/labour, economy/society, system/production, structures/practices, etc.

- **Digital capitalism – more than just an economy:**

In the study of digital capitalism, many approaches understand digital capitalism merely as an economic system. Class and class transformations are key features of digital capitalism. The accumulation logic of the digital capitalist economy shapes digital capitalist politics and digital capitalist culture that have their own specific emergent qualities and relative autonomy. Capitalism is, as we can learn from Nancy Fraser, more than an economy. Digital capitalism is more than a digital economy.

- **Violence and war in digital capitalism:**

We live in violent times. The relationship between digital capitalism and violence has thus far not been enough theorised and analysed. Violence is the intentionally caused, intended or threatened physical harm of a human being. Violence plays a variety of roles in capitalism. Most significantly, capitalism has resulted in two devastating World Wars. War is organised, large-scale violence between at least two politically organised groups where at least one group sees the other group as an enemy that should be annihilated in order to realise a particular political interest against the will of this identified enemy. In digital capitalism, aspects of violence include, for example, digital violence, digital warfare, the digital communication of

violence, the digital communication about violence, and the digital mediation of violence, and digital fascism.

8.1. Ten Onto-Epistemological Premises for the Critical Analysis of Digital Capitalism

I want to close this paper with 10 premises that see as important onto-epistemological foundations of critical theories of digital capitalism.

Premise 1:

The category of digital capitalism competes with various concepts from information society theory and must position itself in relation to them.

Premise 2:

A theory of digital capitalism must answer the question of the continuity and discontinuity of society's development in the context of digitalisation. In doing so, it is suggested that the assumption of a dialectic of continuity and discontinuity is helpful.

Premise 3:

A theory of digital capitalism must ask itself the question of how informatisation and digitalisation are related to agriculture and manufacturing. The approach presented in this paper proposes to assume not a replacement but a dialectical sublation (*Aufhebung*).

Premise 4:

A theory of digital capitalism must answer what digitalisation and informatisation mean for both subjects and objects. Some concepts of society prefer the subject level, others the object level. In order not to absolutise either the one or the other level, it makes sense to start from a dialectic of digital subjects and digital objects, i.e. a dialectic of knowledge production and knowledge structures as well as knowledge work and information technologies.

Premise 5:

A theory of digital capitalism must also ask itself how new digital capitalism is. I propose that today we are dealing simultaneously with a digital society and a digital capitalism in the form of a dialectic of digital productive forces and digital, networked relations of production that operates not only in the economy but in society as a whole.

Premise 6:

Theories of digital capitalism must build on definitions and theories of capitalism, i.e. address the question: What is capitalism? In this context, capitalism can be understood either as a pure economic form or as culture or as a formation of society. The application of Marx's understanding of capitalism has the merit that digital capitalism can be understood as an aspect of capitalism as a formation of society.

Premise 7:

If capitalism is not just an economic order but a formation of society, then the analysis of capitalism is the analysis of economic exploitation and non-economic domination phenomena as well as their interaction. Theories of digital capitalism should also address the question of how class, racism, and patriarchy are related in the context of digitalisation.

Premise 8:

Concepts of digital capitalism are related to related terms such as surveillance capitalism, platform capitalism, data capitalism, big data capitalism, cognitive capitalism, high-tech capitalism, cultural capitalism, consumer capitalism, etc. Such terms often emphasise specific aspects of digitalisation in capitalist society, such as surveillance, big data, algorithms, knowledge production, digital culture industry, digital consumption of goods, etc., as well as their implications and effects. Theories of digital capitalism

should address the question of how they relate to and position themselves in relation to other concepts of capitalism.

Premise 9:

Digital capitalism is a dimension of the capitalist formation of society. One should not absolutise digital capitalism in social analysis but examine its interactions and entanglements with other aspects of the capitalist formation of society.

Premise 10:

The analysis of digital capitalism should also analyse the interaction of class, racism, and patriarchy in the context of digitalisation.

8.2. The World at a Crossroads: (Digital) Socialism or (Digital) Barbarism

Digital capitalism is today situated in the context of the polarisation of the world that is at a bifurcation point where history is open. Once again, we face the dilemma that Rosa Luxemburg pinpointed, the one between “either an advance to socialism or a reversion to barbarism” (Luxemburg 1970, 269). In the 21st century, both socialism and barbarism are mediated by digital technologies.

Democratic digital socialism is the alternative that is needed to global digital capitalism and its escalating antagonisms. Democratic socialism is a societal formation that sublates the antagonisms between classes, political rivals, and ideological enemies. It is not a land of milk and honey without problems, but a society where everyone leads a decent, good life, mutual benefits are maximised while mutual harms are minimised, and the lifeforms of individuals, groups, cultures, and societies are compatible so that they co-exist and do not destroy each other.

The social does not just mean social action. The social does not just mean social relations. The social does not just mean social structures. The social does not just mean community. The social does not just mean society. The social means all of that. But the social means more than that. The social means praxis. The social means socialism. Only democratic socialism is truly social.

Ideally, democratic socialism creates wealth for all in a commonwealth of solidarity and co-operation, political participation of all, and recognition of all. Digital socialism uses digital technologies for advancing these economic, political and cultural features of humanist, democratic socialism as a formation of society. Living in digital capitalism requires us to think about and struggle for digital socialism. “Only when we have the power in our hands will there be an end to wars and barracks”⁷ (Luxemburg 1914, 847).

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⁷ Translated from the German original: „Erst wenn wir die Macht in Händen haben, dann wird es vorbei sein mit Kriegen und mit Kasernen”.

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