if they do not read French. Aside from providing an array of tools for problematizing cities, as well as exploring how to conduct fieldwork in the myriad, but invisible *oligoptica* of cities-in-the-making, it is also a more-than-textual writing experiment that combines both photographic and essayistic genres. More so, *Paris Ville Invisible* is a thoughtful exploration into inventive ways of writing; it is full of tropes into Frenchness, hints at the popularisation of Paris in films, novels, and souvenirs and stands for a whole generation of ANT that is preoccupied with composing texts that reflect the heterogeneity of the worlds that are enacted.

Afterwords

The entire book review was written before Bruno Latour's passing and should not be read as an obituary but as a tribute to the broader lessons that Latour's work and ANT's early generation have taught us, especially to STS and urban researchers. Lessons for which I will be forever grateful.

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Christian Fuchs
Digital Capitalism: Media, Communication and Society Volume Three, London, Routledge, 2021, pp. 342

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Christian Fuchs's work is well known by whoever has navigated sociology of media and communication in the last fifteen years. Since the monumental *Internet and Society: Social Theory in the Information Age* (Fuchs

2007), Fuchs has continuously discussed contemporary media structures and communication practices while updating critical theory to the task, with a focus on the Internet and what he now calls Digital Capitalism. The latter is the focus of the third volume of a multi-volume series on "Media, Communication and Society" (Fuchs 2021c), a series that includes books on *Marxist Humanism and Communication Theory* (Fuchs 2021a), *Foundations of Critical Theory* (Fuchs 2021b), *Digital Fascism* (Fuchs 2022a), *Digital Ethics* (Fuchs 2022b), and *Digital Democracy and the Digital Public Sphere* (Fuchs 2022c). The prolific work Fuchs does is characterized by a few common traits that apply also to the book reviewed here, *Digital Capitalism* (Fuchs 2021c).

First of all, Fuchs's writing is essential, privileging a schematic and direct way of articulating his perspective that serves well the goals of the book. An STS reader used to forms of writing that are evocative, often ethnographically rich, and that build connections between local practices and more abstract logics, can perceive Fuchs' linearity, and tendency to summarize his arguments in tables and bullet points, as a way of limiting access to the nuances of the phenomena he focuses on. In my understanding, this perception would be well-placed if it wasn't for the second, fundamental, aspect of Fuchs' work and writing, its immense theoretical width. Only in the book I am reviewing here, *Digital Capitalism*, Fuchs includes chapters on updating, and confronting from a contemporary perspective, the theoretical contributions of authors like Friedrich Engels, Georg Lukács, Theodor W. Adorno, Henri Lefebvre, and Dallas Smythe. Those chapters open the book, and constitute the backbone of the first of the two main parts, called respectively "Theorists" and "Themes". Basically, all the books in the series on "Media, Communication and Society" follow a similar structure, with an initial part devoted to theoretical inquiries and a second part oriented toward the application of the theoretical concepts to contemporary digitalized societies. If that isn't something unexpected, as such structure is relatively conventional in academic writing, what stands as impressive is Fuchs productivity, that places him as one of the most prolific and influential contemporary sociologists of media and communication.

The aforementioned productivity wouldn't be so interesting if the quantitative aspect of it wasn't sided by a qualitative dimension that is absolutely worth engaging with. Just staying at the book object of this review, the initial qualitative aspect to stress is the definition of digital capitalism that Fuchs provides,

> digital capitalism is a *dimension* of the capitalist formation of society that emerged in the 20th century and has ever since shaped society. Digital capitalism is not a new totality, not a new formation of society. It is not a new society, but rather a novel feature and dimension of the capitalist formation of society [...] digital capitalism is not just a digital practice and not just a digital structure, it is the totality of the dialectics of digital practices and digital structures that take place in capitalist society [...] digital capitalism

is an antagonistic society, which means it is a digital class society and a digital form of domination. (pp. 27, 29, *emphasis* in the original text)

From an STS perspective, especially one adopting a flat epistemology, the way through which Fuchs delimits digital capitalism can sound a little too rushed but it is in the same page that Fuchs provides a perspective that can help build a bridge between the stress on forms of domination and the empirical inquiries that characterize many STS research. In particular, it is stressing the unequal power structures that unfold in digital capitalism, that it is possible to find research directions through which Fuchs's definition of digital capitalism can be questioned and/or refined.

One of the schematic summaries provided is a classification of the three main aspects along which accumulation takes place in digital capitalism: economic, political, and cultural accumulations (for the ones with access to the book, the summary is provided in Table 1.3 at page 29). Fuchs preliminarily defines those forms of accumulation as the "accumulation of digital capital based on digital commodities" (economic), the "accumulation of decision-power in respect to the control of digital knowledge and digital networks" (politics), and the "accumulation of reputation, attention and respect by the spread of ideologies on and of the Internet" (culture). I see in this summary potential for a dialogue between Fuchs's sociology of media and STS scholarship, in particular on understanding how empirically, and in a situated manner, accumulation takes place and relates to other aspects of life and technologies. In fact, although still relatively abstract, those three definitions allow for a narrowing down and tracing in local contexts of economic, political, and cultural accumulations. For example, the political aspect can easily relate to the STS studies of digital networks and the making of computing knowledge, from managing digital infrastructures (Musiani et al. 2016; Crabu and Magaudda 2018) to hacking dominant systems (Kelty 2008; Coleman 2014).

Empirically speaking, Fuchs articulates his perspective on empirical research in one of the chapters listed as "Themes", Chapter 7, *From Digital Positivism and Administrative Big Data Analytics Towards Critical Digital and Social Media Research* (pp. 177-192). I have found this chapter resonating well with the specific standpoint from which I write, one of the atypical design researchers with training in STS and critical theory. This chapter looks indeed capable of opening up a conversation with STS research based on the critique of what Fuchs refers to as digital positivism. That is referred to as the extensive use of "big data analytics" as a way of doing research that ends up being:

administrative [… that is] predominantly concerned with how to make technologies and administration more efficient and effective", forgetting about "philosophy, theory, critique [and…] academia's educational role. (p. 180)

After having brought into the picture some Marxian concepts of interest and the concept of digital sociology as bases for an inquiry that is not administrative, Fuchs articulates what he refers to as:

critical digital methods [that] do not simply apply large-scale quantitative analysis to these data but use smaller samples that are analysed with the help of qualitative methods and interpreted with the help of critical theory. (p. 186)

Critical digital methods are connected, in the following of the chapter, to:

critical moral realism in social media research [that] tries to create knowledge about social media that helps understanding what is absent in the world and needs to be created (absenting absence), in order to foster participatory democracy, freedom, justice, fairness, and equality. (p. 189)

These latter references, to critical digital methods and their research ethics, correlate, seem to me, a clear opening for a fruitful exchange between Fuchs's proposals and the ones who interpret STS as an engaged program or, like myself, who sits in between STS and design research, in which *what is absent and needs to be created* becomes one of the foci. That becomes even more evident as the book progresses, as in Chapter 10, *Capitalism, Patriarchy, Slavery, and Racism in the Age of Digital Capitalism and Digital Labour*, and Chapter 11, *Digital Labour and Imperialism*, in which Fuchs deals with issues that are at the centre of STS feminist and post-colonial reflections. In particular, Fuchs expands on the aforementioned economic, political, and cultural aspects of accumulation to point to the forms that labour – wage, slave, reproductive, and unpaid digital labour – assumes in relation to these three dimensions. The details through which those forms of labour are connected – in Chapter 10 – to different forms of accumulation, open up for what can be a fruitful conversation between Fuchs's critical sociology and STS feminist and post-colonial strands. In particular, the attention given to aspects like the means of production, the product, spaces and time of labour, its legal regulation, forms of coercion and control, and ideological stand, is an articulated proposal for further empirical deepening (for the ones with access to the book, Table 10.4, pp. 248-249, provides a comprehensive summary of these relations).

In conclusion, I think that Fuchs's book is a great one for whoever, in STS – and nearby fields like the part of design research I engage with – is willing to confront the situated research they conduct with the vast tradition that has put capitalism as the focus of study and critique, giving new steam to all participants to the conversation.

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Max Liboiron
Pollution is Colonialism, Durham, Duke University Press, 2021, pp. 216

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Laboratory studies are a popular genre within STS. Since Latour and Woolgar's *Laboratory Life*, a now classic ethnography of a neuroendocrinology lab in California (1979), STS has long been interested in science in the making. Following the day-to-day work of scientists, lab studies show that scientific knowledge emerges through the interactions between humans,