

**Artificial intelligence and the contradictions of digital capitalism:
interview with Sabine Pfeiffe**

**Inteligencia artificial y las contradicciones del capitalismo digital:
entrevista con Sabine Pfeiffer**

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entrevista com Sabine Pfeiffer**

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Abstract

Sabine Pfeiffer is a sociologist interested in the interaction between people, technology, and organization. Her research is focused on work and economy, which Pfeiffer considers essential elements for understanding contemporary societies amid the ongoing digital transformation. She has worked at the University of Applied Sciences in Munich, Ruhr University Bochum, Friedrich-Alexander-University Erlangen-Nuremberg, University of Hohenheim, and the University of Düsseldorf. She recently published the book *Digital Capitalism and Distributive Forces* (2022, transcript Verlag). Invited by the organizers of the dossier *Artificial Intelligence through the lenses of Marxism and Critical Thinking*, in August 2024 Sabine Pfeiffer gave the following interview. Her answers deal with some fundamental issues related to artificial intelligence and its contradictions. She explains how the distributive forces, a subcategory of productive forces that has a fundamental role in the current economic logic of capitalism, are affected by artificial intelligence and other information technologies. According to her, artificial intelligence may lead to catastrophic logistical and ecological developments in the years to come. Regarding the hype on generative artificial intelligence, Pfeiffer foresees that it will flatten out soon. Analyzing the existing theories of digital capitalism, she points out two recurring blind spots. The first one is the lack of approaches to value and value creation. The second is the absence of interpretations on the realization of value on the market—a central function of the distributive forces. These are just some of Pfeiffer's thought-provoking and inspiring analyses. Enjoy the interview!

Keywords: Digital Capitalism; Distributive Forces; Technology; Work.

Resumen

Sabine Pfeiffer es una socióloga interesada en la interacción entre personas, tecnología y organizaciones. Su investigación se centra en el trabajo y la economía, que Pfeiffer considera elementos esenciales para comprender las sociedades contemporáneas en medio de la transformación digital en curso. Ha trabajado en la Universidad de Ciencias Aplicadas de Múnich, la Universidad del Ruhr de Bochum, la Universidad Friedrich-Alexander de Erlangen-Nuremberg, la Universidad de Hohenheim y la Universidad de Düsseldorf. Recientemente publicó el libro *Digital Capitalism and Distributive Forces* (2022, transcripción Verlag). Invitada por los organizadores del dossier *Inteligencia artificial a través de los lentes del marxismo y el pensamiento crítico*, en agosto de 2024 Sabine Pfeiffer dio la siguiente entrevista. Sus respuestas abordan algunas cuestiones fundamentales relacionadas con la inteligencia artificial y sus contradicciones. Explica cómo las fuerzas distributivas, una subcategoría de las fuerzas productivas que tiene un papel fundamental en la lógica económica actual del capitalismo, se ven afectadas por la inteligencia artificial y otras tecnologías de la información. Según ella, la inteligencia artificial puede conducir a desarrollos logísticos y ecológicos catastróficos en los próximos años. En cuanto al entusiasmo por la inteligencia artificial generativa, Pfeiffer prevé que pronto se apaciguará. Al analizar las teorías existentes sobre el capitalismo digital, señala dos puntos ciegos recurrentes. El primero es la falta de enfoques sobre el valor y la creación de valor. El segundo es la ausencia de interpretaciones sobre la realización del valor en el mercado, una función central de las fuerzas distributivas. Estos son solo algunos de los análisis sugerentes e inspiradores de Pfeiffer. Disfrute de la entrevista!

Palabras-clave: Capitalismo digital; Fuerzas distributivas; Tecnología; Trabajo.

Resumo

Sabine Pfeiffer é uma socióloga interessada na interação entre pessoas, tecnologia e organização. Sua pesquisa é focada em trabalho e economia, que Pfeiffer considera elementos essenciais para a compreensão das sociedades contemporâneas em meio à transformação digital em andamento. Trabalhou na Universidade de Ciências Aplicadas de Munique, na Universidade Ruhr de Bochum, na Universidade Friedrich-Alexander de Erlangen-Nuremberg, na Universidade de Hohenheim e na Universidade de Düsseldorf. Pfeiffer publicou recentemente o livro *Capitalismo Digital e Forças Distributivas* (2022, transcrição Verlag). Convidada pelos organizadores do dossiê *Inteligência Artificial sob as lentes do Marxismo e do Pensamento Crítico*, em agosto de 2024 Sabine Pfeiffer deu a seguinte entrevista. Suas respostas tratam de algumas questões fundamentais relacionadas à inteligência artificial e suas contradições. Ela explica como as forças distributivas, uma subcategoria de forças produtivas que tem um papel fundamental na lógica econômica atual do capitalismo, são afetadas pela inteligência artificial e outras tecnologias da informação. Segundo Pfeiffer, a inteligência artificial pode levar a desenvolvimentos logísticos e ecológicos catastróficos nos próximos anos. Em relação ao hype sobre inteligência artificial generativa, prevê que ele se estabilizará em breve. Analisando as teorias existentes do capitalismo digital, ela aponta dois pontos cegos recorrentes. O primeiro é a falta de abordagens sobre valor e criação de valor. O segundo é a ausência de interpretações sobre a realização de valor no mercado — uma função central das forças distributivas. Essas são apenas algumas das análises instigantes e inspiradoras de Pfeiffer. Aproveite a entrevista!

Palavras-chave: Capitalismo Digital; Forças Distributivas; Tecnologia; Trabalho.

James Steinhoff: You have described the political economic context in which the artificial intelligence (AI) boom has taken place as characterized by the increasing significance of the *distributive forces*. Could you tell us what you mean by this?

Sabine Pfeiffer: Maybe you will notice the similarity, of course, when I talk about distributive forces, to the term of productive forces, which is, of course, a central term within Marxist theory. The problem businesses and national economies increasingly face today in a highly advanced globally operating capitalism is to have successful sales. This is what they are competing for more and more. If you look at it on a global spectrum, we are producing more goods than ever. That's because that's how capitalism is. It tries to make as much as possible. Why? Because, as Marx pointed out, value generation, and surplus value exploitation, happens on the productive level. So this has been going on for hundreds of years. Over the past 200 years, capitalism has gotten better and better at optimizing the productive forces: making more with cheap labor, making it more productive, more efficient, using wage gaps around the globe and so on.

But that only hardens for them the problem that every kind of value that is generated makes no sense - in a capitalistic kind of sense - if it's not sold on the market. It would make sense for people who need this stuff. And there are people who need the stuff. But from the point of view of the capitalistic logic, of course, nothing that is produced, but not sold on the market, makes sense. You can get surplus value out of it only if you sell the things on the market. Today, this is the main objective of corporations and a lot of the business models and corporate strategies I see in my empirical work.

If you only look at it from the perspective of productive forces, these models and strategies often make no sense. They put in a lot of money that doesn't make production more effective. Sometimes it's even the opposite of it. But if you look at it from what I call the distributive forces perspective, it makes a lot of sense. Distributive forces for me only means a subcategory of productive forces. It's all the organizational means or technological means that point to the market; to be there earlier than your competitor, to make sure that you get as much goods as possible to the point of sale. And so on. At that point digital technology steps in and has a pretty good promise to make.

So my analysis starts not with the digital technology of digital capitalism. I'm starting my analysis from the question: is there something new in the economic logic of capitalism? And I would say, of course, there's nothing totally new, because it's still good old capitalism. But as it has been going on for 200 years now, it has changed a bit. And that means it's more global than it has been, and so on. You have a lot of big players. The biggest problem for them is getting things sold on the market. So they put more of everything, their investment, their technology and ideas, creativity, into these things. Meaning everything that has to do with marketing, with prognosis, market consumer behavior, things like new kinds of selling, for example, like software as a service. You don't pay just once, and then it belongs to you. But you pay for a use period again and again.

James Steinhoff: So in short, capital is devoting more resources to circulation, accelerating and facilitating circulation, so as to realize the sale of commodities on the market rather than focusing, as much as it used to, on production?

Sabine Pfeiffer: This is, of course, not a new argument. Of course, the circulation sphere plays a big role in Marx's theory. But he was pretty much concentrated on pointing out how value generation and exploitation is happening in production and why capitalistic production has to be organized like it is, and so on. And so the point of sale, so to speak in marketing terms, was not not so much in his point of view. And rightly so, because he described the beginning of capitalism, and it was much more pointed to optimizing the productive forces at that time. My

point is not to say the productive forces are not important anymore, or something like that. It's more that it's helpful to have an analytical term for these distributive dimensions of the productive forces. These have more importance now than maybe 50 years before.

James Steinhoff: Yeah, I think that's a very subtle but incisive point. And while you've said that you're not starting from the novelty of specific digital technologies, since this is a special issue about artificial intelligence, I have to ask the question: what is the political economic significance of AI in relation to the distributive forces? Is AI distinctive or is it just like other information technologies?

Sabine Pfeiffer: Both, I would say. On one hand, it's kind of same-same, I would say, because all digital technology promises to step in, if capitalism wants, to achieve value realization on the market. The promise always is: I'll help you be there earlier. I'll help you with your competitor. I'll help you by being there at the point of sale 24/7, around the globe. I'll help you by getting goods more precisely to the point of sale. Sometimes the promises are not kept, but the promise is there and that's why we see so much investor activity going into this stuff. From this perspective, AI is not so different. The same promises, more or less. It's also the same in terms of exploiting data and the creativity of others – without paying for it. Also in terms of using low paid work, mostly in the global South. These are old capitalistic strategies. But on a bigger scale. It's also the same in terms of making the promise to automate human work. Again, with AI, we have seen that before, as with industry 4.0, the capitalist narrative towards workers is: be frightened because we can automate what you are doing with this new technology. Don't think about unionizing or wanting higher wages. Because you have to be thankful that you have a job, because maybe the robots or AI will steal it tomorrow. The novel thing is that AI points more to replacing tasks of employees in sectors like marketing and things like that. That's where AI is pretty good because the most content we find on the Internet is a kind of marketing content and AI learned on that. So if you need a marketing text, AI is perfect.

What also is the same, but still on a way higher scale, is the investor bubble. We have seen investor bubbles again and again. But one really important thing we don't look into often enough is: why do investors have billions of billions of dollars to invest in what is just a promise? Where do they get that from? They have that because capitalism has been working without big disturbances for 200 years now, and they have so much accumulated wealth in so few hands, and they don't have an idea where to put all this money. You can buy three yachts, maybe, and then it's enough. Or two Picassos. Then you can invest in some kind of AI promises.

There are two things I would say are really novel about AI. One is the ecological footprint. We really should have a discussion about whether we should really put so much energy into generating some nice pictures. If you look into the studies we already have about that, it's awful. The other thing which I would say is really new with AI, and which is totally underestimated from my point of view, is its difference compared to hardwired code. It's a technology that just makes a prognosis. This can be very helpful when you need a prognosis. But at the moment we use it for everything, even where we don't need a prognosis. But it's a technology which isn't to be relied on because it will never be 100% correct. It doesn't work like that. Yet the trend is to put AI into everything, like infrastructure, or use it in medicine, or use it for decisions about whether people will get social welfare or not. And we already see that there are a lot of countries doing that. We shouldn't use AI for that. This will force us to see a lot of catastrophic developments in the years to come, I'm pretty sure.

In capitalist logic, investing in new technology is always aimed at advancing the productive forces and getting rid of workers. But since we have a technology which isn't, at its core, a correctly working technology (in the sense of 100% correctly) you always will need qualified experienced workers to step in if the catastrophic event happens. But capitalist logic will not think like that. They will say: we don't need them - it will be good enough. This is an often cited

phrase in Silicon Valley and with people in AI: it doesn't have to be perfect. It's okay when it's good enough. That is something I would say, that's really different to classical digital technology with hardwired code.

James Steinhoff: Right now we're witnessing this absurd situation where tech companies like Google are trying to mix AI into their search engines and actually making them perform worse because they're now hallucinating results rather than just doing the old-school technique of searching for links.

Sabine Pfeiffer: And we have the discussion about whether this is the end of the Internet. Now we have more and more content on the Internet which is automatically generated by AI. Nobody's looking at it. It's just generated. And it's translated by other AIs and then the search engine. AI is being trained on that. It's like cannibalism. And we already see that the results are getting worse. There's no answer for that at the moment, except just stopping all that bullshit. But that won't be happening.

Jonas Valente: One specific type of AI are large language models. They have been growing steadily in the last couple of years, especially since 2022. Do you think that there is anything significant about this particular application of AI for the distributive forces?

Sabine Pfeiffer: I would say most of the things I pointed out before when you asked about AI in general. But generative AI is even more premised on grabbing our data, and promising the automation of those aspects of human labor which were always assumed to never be automated—like being creative, like being empathic, or at least sounding like you have empathy. I'm pretty sure the hype about generative AI will flatten pretty soon because everything that is possible with this kind of technology, I would say, is kind of done. The search engines are getting less good already, but that is not the only problem. There's also the problem that making generative AI better than it is would need so much more data to proceed, and it's not necessarily available. We can wait and see whether there will be a totally novel approach on AI. But this kind of approach, I would say, it's almost over. The hype will go on for maybe three to five years. We will see.

James Steinhoff: That's making me think of the narratives that are being told right now. Recently Goldman Sachs released this investor report about generative AI. It was mildly skeptical and this caused some massive valuation drops for AI companies. It turns out that even the venture capitalists are getting tired of the lack of tangible backup for all this AI hype.

Sabine Pfeiffer: I have an anecdote about that. I had been at a lecture at one of our small banks in Bavaria. They had a big event on AI and a lot of people were invited. Most of them were the hype people making fancy presentations on how the world is changing and how cool that stuff is, and so on. Of course, because it was a bank, all those fancy presentations were also about how much value creation is going on, how many billions will be earned, and so on. And then I mentioned the Goldman Sachs study. It was maybe two days old at that time and they were all like "What? No, I hadn't heard that!". I said: "It's not a conspiracy theory. It was Goldman Sachs, I mean, those are your buddies!". It was really interesting.

Rodrigo Moreno Marques: According to Marx, during "colonial trade in general (the so-called colonial system)", commercial capital "dominates production directly" (Capital, v. 3, p. 446).

Marx also states that “In the stages that preceded capitalist society, it was trade that prevailed over industry; in modern society it is the reverse” (p. 448). So here comes the question: can the contemporary strengthening of distributive forces be compared with what happened during this historical context?

Sabine Pfeiffer: I'm not so sure. First of all, I think we should always be cautious with historical comparisons. Sometimes they can be helpful and inspiring, but we shouldn't overstretch them. Of course, it's capitalism, so a lot of things Marx said have to still be true. Otherwise it wouldn't be capitalism. But what are the novel things? Is there something changing within the capitalistic logic? And what could that be?

First, I think we have to define what commercial capital was in the times of Marx's analysis. If you think about British, Dutch, French, and other European trade companies. They were kind of conglomerates of trade companies on one hand, and the geopolitical interests of monarchs of those countries in those times. Capitalist production as we know it today wasn't invented yet. Really, it was just starting. You had craftsmanship, and you had small manufactories, but you didn't have large scale production at that time.

Secondly, I would say, if you limit the analysis to the aspect of the exercise of power by a few over many others, then the comparison is correct. But capitalism is not only about power in a simple sense. I would say, before industrial capitalism started, the core of power lay in geopolitical access to resources, like raw materials and that was usually secured by force or by trade, or both. But we no longer live in merchant capitalism. In a very developed capitalism, at its core is exploitation in the field of production. There's a lot of different forms of how power is executed. So I'm not so sure if the comparison to the older models really helps.

James Steinhoff: That answer bridges well to our next question. Authors such as Nick Couldry and Ulises Ali Mejias advocate a theory of data colonialism which aims to explain the operations of big tech. Do you have any thoughts on this sort of theory?

Sabine Pfeiffer: Yes, and I would say, this connects to questions about technofeudalism. It's in the same direction. First, I would never say my interpretation is the one and only you have to follow to understand today's capitalism. I think every kind of critique coming from different perspectives is helpful because capitalism is such a complex thing. If Marx and Engels needed more than 40 volumes then, maybe they would need 80 volumes or 160 volumes today.

I would never say “that is a weird kind of perspective or analysis, or it's not fulfilling” because no analysis could be fulfilling. It's just too complex of a topic. That said, we have a lot of theories and empirical studies that show the big importance of grabbing data and using data, like Shoshana Zuboff's. It's important to point out what's happening there. Because this is a new kind of exploitation. But, on the other hand, nothing is new. What capitalism always has done is not only try to exploit human work within the production process. This is where they brought it to perfection. But from the beginning they always tried to exploit more than that, like unpaid family work, unpaid reproductive work, making the productive exploitation possible. Capitalism always is exploiting everything anywhere it can make a grab. Be it our sociality. Be it our environment. Be it the air we are breathing. Someday, I'm pretty sure they will grab that also. Data just make it easier to bring the exploitation into the smallest actions of our life.

Every kind of analysis we have shows again how contradictory it is that we have such wonderful digital tools, but we are mostly using them to perfect exploitation on different levels. But I would say that the grabbing data is really just one aspect. But of course, in my book I'm pointing to another particular aspect. So this is all we can do, I think.

James Steinhoff: In your analysis of existing theorizations of digital capitalism you point out two recurring “blind spots”. Can you tell us a bit more about those?

Sabine Pfeiffer: Yes. The first one is that there is not much said about value and where value is created. When it is talked about, the thesis is more or less, and I'm making it very simple, of course, that value creation now is easy, because everything is virtual, everything is just ones and zeroes. Like Paul Mason in his *Postcapitalism*, for example, saying you can just copy information and it doesn't cost anything. And this is the end of capitalism! I don't buy that.

First off, I don't buy that because a lot of things are really physical. I mean server infrastructure and data highway infrastructure. That's really physical. And the other thing is, if you are talking about value, you should also ask why and how and by whom value is generated. I find it very interesting to read Mariana Mazzucato's book *The Value of Everything* about how the notion of value somehow vanished, even from all economic theories. It's like if sociology wouldn't talk about society anymore. I mean, that's our core term. It's really weird that economic theory managed to talk about a lot of things, but not about how value is created. There's often a kind of black box, although Marx did the opposite. He really looked into this black box. And asked what is happening in the production process? And why? Is this the space and the time where the value creation is happening?

The second blind spot is the realization of value on the market. Both Marx and Polanyi didn't look so much at the point of sale on the market side. Of course there was a kind of marketing in the early times, even in antique history. People who have something to sell always try to get it to market. However, you almost had no people whose work had something to do with pointing to the market. Now, it's almost the opposite. If you look at, for example, the big automotive companies in Germany. You might think most people there are producing cars, but that's not true. Less people there are producing the physical product while a large amount of people are contributing to what I call distributive forces. They are looking into marketing, and not how the car should be designed or constructed or produced to make it a better car, but to make it a better selling car.

In the German version of my book I have one chapter with German data about how we have seen more and more professions that are contributing to the distributive forces: marketing, logistics, bringing things on the market, and so on. But not just entire professions. If you look at the task level, you see that, for example, engineers who, you may think, are only doing technical things, constructing a new car or a new production process. Yes, they are doing that. But more and more of what they are doing is also related to marketing or things that somehow are related to distributive forces. There are many professions which one might think are good old productive forces labor but which are in fact doing a lot of things that somehow are related to distributive forces.

James Steinhoff: With regards to the existing critical sociological research on AI, do you see any blind spots there?

Sabine Pfeiffer: Yes, I would say we have a bias towards bias. We have so much talking about how algorithms are discriminating against people of color, women, and so on. And that's right, of course. And we have all the empirical evidence for that. But I would say, if this would be our only problem with AI, then it would be no problem. Because if companies wanted to do something about that, it's easy to heal. It's an old fashioned problem because we have discrimination and bias in the real world, without algorithms.

In the last chapter of my book I ask the question: maybe AI is not only one aspect of distributive forces, but maybe it's also a destructive force? At least under capitalistic conditions. I think we should talk more about the problems we will encounter when we use AI as or within

infrastructure. For example, if I use an algorithm in a production process, for example, in a big chemical plant which is working 24/7 and the decision of the algorithm is pointing in the wrong direction. You have a big explosion, for example, because of what it's done. Maybe people are dying, or maybe the environment is hurt or whatever. I think, in sociology especially, and even from a critical point of view, we are talking less about these things and more about bias. And I think that's a pity.

And the other thing is, if we just point to the big players in Silicon Valley. They are big, and of course, because they are big and have a lot of money, they are really mighty. and that's a problem. And we should talk about that. But they are also mighty because they have so much investor money from good old capitalists who make their money, not in the least with digital technologies, but with normal capitalist exploitation. Exploitation – I think we should talk much more about that. Especially in societies that we think are democracies. We should talk much more about that, and not only look at Amazon and Google, and so on.

I think it's helpful, looking into Marx's theory and using it as a helpful tool. Not reading it like a Bible and saying he was right all the time. That's not not helpful. But to really use it as a tool to understand what's going on.

James, Rodrigo and Jonas: Thank you!

Download an open access PDF of Dr. Pfeiffer's *Digital Capitalism and Distributive Forces* here:
<https://www.degruyter.com/document/doi/10.1515/9783839458938/html?lang=en>

