A new middle-class fraction with a distinct subjectivity: Tech workers and the transformation of the entrepreneurial self

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Abstract
With the rise of digital capitalism, a novel occupational segment has emerged: so-called ‘tech workers’. Members of this grouping render and encode the digital technologies that permeate contemporary social life. While there are many studies about highly precarious digital labourers, research on these digital professionals remains scarce. Based on 40 original interviews, the article explores the subjectivity of tech workers. Specifically, it asks whether understandings of middle-class employees as entrepreneurial selves with a holistic market orientation hold true for this grouping, or whether new cultures of subjectivation are emerging. The key finding from these interviews is that tech workers show contours of a post-neoliberal subjectivity. While the figure of the entrepreneurial self remains an alluring force, this study detected four transformative cultures of subjectivation: (1) a return of the critique of economic inequality; (2) a concern for diversity; (3) an ethic of mindfulness; and (4) a lifestyle that signals ordinariness. These distinct forms of subjectivity point to the formation of a new middle-class fraction. However, drawing on the sociology of critique, this article also considers how this transformation of subjectivity can be appropriated as yet another new spirit of capitalism.

Keywords
class, digital capitalism, digital labour, knowledge work, subjectivity, tech workers

Introduction
In contemporary Western capitalism, the figure of the ‘entrepreneurial self’ (Bröckling, 2007/2015; Rose, 1989; Skeggs, 2004) has become an enchanting subjectivity due to its alluring promises of flexibility, creativity and self-actualisation. At the same
time, entrepreneurialism demands a Mephistophelian price, expecting self-responsibility, self-rationalisation and self-commercialisation from its subjects (Pongratz & Voß, 2003; Sennett, 2007). This Faustian pact, struck, in particular, by white-collar workers in the middle class, has been considered ‘the new spirit of capitalism’ that has allowed neoliberalism to thrive (Boltanski & Chiapello, 1999/2018; Mau, 2015).

In the context of the elective affinity between new digital technologies and capitalism (Couldry & Mejias, 2019; Wajcman, 2018), the question arises as to whether, and how, middle-class employees should still be considered as entrepreneurial selves. Until recently, social scientists have focused on the highly precarious new groups of labourers, such as gig workers, that have emerged through the increasingly intense digitalisation of the economy. Studies have almost exclusively considered the new ‘digital underclass’ or ‘cyber proletariat’ under the banner of digital labour (Huws, 2001). This narrow take on digital labour seems out of date given the growing number of professional digital labourers, so-called ‘tech workers’, who are paid upper-middle-class wages for programming, designing or managing digital technologies and digitally-mediated services (Dorschel, 2022; Tarnoff, 2020).

Enquiring into this group brings us to the backstage of ‘digital capitalism’ and directs attention towards the workers who hold inscription power in rendering and encoding the digital technologies that shape the spheres of work and life (Burrell & Fourcade, 2021; Wajcman, 2018). At the same time, an enquiry into tech workers also sheds light on class dynamics. Tech workers constitute a growing grouping of professionals with relatively high volumes of economic and cultural capital. Furthermore, actors from all across the economy are observing and mimetically adapting to the work forms of the tech industry (Gerbaudo, 2018, p. 66; Tarnoff, 2020). By attempting to grasp the subjectivities of tech workers, this article thus offers insights into the culture of digital capitalism as well as the question of class in contemporary society.

Drawing on Foucault’s theoretical heuristic of subjectivity while complementing it with Bourdieu’s concept of class, I will enquire into the grouping of tech workers. The few existing studies tend to point to an intensification of post-industrial cultures of subjectivation (e.g. Marwick, 2013; Neff, 2012; Wajcman, 2018). In this article, I focus on the new cultures of subjectivation that can be reconstructed among digital professionals. Here, I build on 40 original interviews conducted with tech workers in the USA and Germany and argue that tech workers shows contours of a post-neoliberal subjectivity. While important continuities remain, a qualitative transfiguration in social character is underway. Tech workers still cherish flexibility, creativity and self-actualisation, but they also cultivate a critique of economic inequality, an ethic of mindfulness, and a lifestyle that values ordinariness. In addition to the self-classification as ‘workers’ in operation, these new forms of subjectivity signal the formation of a culturally and symbolically distinct middle-class fraction. Not only do tech workers hold similar positions in the economic field, they also share other traits: similar left-leaning political worldviews, solidarity with minority groups as well as gig workers, the search for a re-differentiation between work and life, and the urge to distinguish themselves from high-brow and arty lifestyles in some ways. Tech workers transfigure many facets of the entrepreneurial self, and thus differ from other (upper) middle-class professionals, such as bankers (Neely, 2020). Tech workers fundamentally aspire to be middle-class wealthy and morally worthy. This is a subjectivity that can be interpreted as holding emancipatory potential, positing a disruption to neoliberal
forms of subjectivation that produce a holistically market-oriented self (Mau, 2015). It seems that just as many tech firms become quasi-monopolies, exacerbating social inequalities and attracting discursive scrutiny, the entrepreneurial self begins to lose its quasi-monopoly over ideal forms of middle-class subjectivity. However, this article will also enfold how the subjectivity of tech workers is linked to certain resources and generates new forms of distinction. Furthermore, by using insights drawn from the sociology of critique (Boltanski, 2011; Boltanski & Chiapello, 1999/2018), this article will flesh out the ways in which the emergent and unconsolidated post-neoliberal subjectivity is open to appropriation for a cultural rejuvenation of capitalism.

Subjectivity, labour and capitalism

Drawing on Foucault, I understand subjectivation as the fixing of attributes to human beings (Foucault, 1982; Skeggs, 2004, p. 6). Thus, subjectivation does not refer to pre-social traits of individuals. Anthropological constants are replaced by a conceptualisation of the subject as the genealogical outcome of dynamic power–knowledge relationships. Foucault theorises the subject as shaped by self-dynamic discourses and dispositifs on the one hand, and technologies of the self on the other (Foucault, 1982, 1983/2012). This latter aspect, prominent in Foucault’s later writings, grants subjects the possibility to resist and transform power relations. However, Foucault showed a relative indifference to how subjectivation processes relate to social classes (Brown, 2015, p. 77; Skeggs, 2004, p. 19). I will therefore use Bourdieu’s theory of class to complement Foucault’s concept of subjectivity. Bourdieu’s seminal work explores class relations by considering classification principles through which groups figurate distinctive collectives (Bourdieu, 1979/1984, 1985). With Bourdieu, we can take a step back from the focus on economic distributions found in classical theories of class, and instead attend to how classifications are established and uncover how these work in the interests of particular groups (Bourdieu, 1979/1984, p. 482; Skeggs, 2004, p. 7). Class analysis must, then, take into account the ways in which classification principles and symbolic struggles are linked to unequally-distributed resources manifest in forms of economic, cultural, social and symbolic capital (Bourdieu, 1979/1984, p. 101). These resources provide actors with the means to live up to idealised social figurations and the chance to tilt the principles of division in their favour (Skeggs, 2004, p. 20). Bourdieu explores the nexus of classification principles and different forms of capital through his concept of habitus (Bourdieu, 1992/1996, p. 261). The theorisation of habitus has been problematised, however, since it often does not attribute critical reflexive capacities to actors (Boltanski, 2011; Boltanski & Thévenot, 1987/2006). While I do not fully share this critique, I follow the argument that Bourdieu’s theory of habitus is geared more towards the task of accounting for social reproduction and the illusions of actors (Boltanski, 2011, p. 20). Given that this research article is interested in cultural shifts and underlying technologies of the self, I will draw on the theoretical heuristic of subjectivity flanked with Bourdieu’s concept of class.

Post-industrial capitalism and the entrepreneurial self

Before enquiring into the subjectivity of tech workers, we must at least briefly reflect on the genealogy of middle-class white-collar subjectivation. This entails considering
different modes of capitalist production, in particular the departure from ‘Fordist industrial capitalism’. Around the 1970s, this mode of production began to be replaced by a more global, networked and flexible capitalist regime (Bell, 1973). The material roots for this transformation towards ‘post-Fordism’ can be traced back to economic stagnation and technological advancements. The significant and regular growth rates of Western capitalist economies had begun to decline. At the same time, advancements in logistics as well as information and communication technologies enabled more outsourcing and on-demand economic production (Reckwitz, 2017/2020, p. 81). These developments lead to a decrease of jobs in manufacturing and an increase in the number of ‘white-collar jobs’ (Mills, 1951/2002) in knowledge, management, service and creative economies. In parallel, government safety nets were cut down. Keynesian beliefs in a strong state had faded, while faith in the market as an organising principle gained popularity beyond the economic field (Mau, 2015). Neoliberalism, understood as a code of conduct that rests on anti-government sentiments and a market-orientation among individuals and collectives, gained hegemony (Foucault, 1978/2008). This has led to heightened class differences within Western nation states, where only the elite and a small upper-middle-class thrive (Piketty, 2014).

However, the process of post-industrialisation cannot be adequately grasped without taking into account the shifting cultures of subjectivation. New forms of subjectivity arose in parallel to economic, political, organisational and technological transformations. The notion of the *entrepreneurial self* (Bröckling, 2007/2015; Rose, 1989; Skeggs, 2004) sums up manifold elements of the new ideal subjectivity (see also Foucault, 1978/2008). This new self refers to an employee who behaves like an entrepreneur in many ways (Pongratz & Voß, 2003). This is a self that prefers networks over hierarchies and longs for autonomy while remaining always available (Sennett, 2007). This self is less attracted to unions and feels more at home working on temporary projects than in life-long careers (Boltanski & Chiapello, 1999/2018, p. 90). Unlike the *organisational self* (Whyte, 1956), considered to be the ideal-typical subjectivity of industrial capitalism, the entrepreneurial self does not want to stay within one company for a lifetime and further dislikes the idea of being a cog in a corporate machine. This self is on a journey to find meaning, singularity and creativity within work (Boltanski & Chiapello, 1999/2018; Reckwitz, 2017/2020), and considers the strict division between the work and life sphere unnatural: 9 to 5 jobs seem like prison sentences. There is a stark contrast between the organisational self, with its orientation towards stability, collectivity, loyalty and conformity, and this entrepreneurial self.

What we find are thus mutually dependent factors: capitalism became increasingly flexible and innovation-oriented at the same time as cultures of subjectivation devalued the organisational ethic and middle-class employees were interpellated and self-classified as project-oriented, creativity-seeking and self-rationalised. A Faustian pact was born. Paradoxically, many of the ‘virtues’ of the new white-collar worker originally emerged as a critique of capitalism (Boltanski & Chiapello, 1999/2018). Anti-capitalist counter-culturalists, artists and scholars had long critiqued industrial capitalism as a world of work that circumscribed creativity and autonomy. But their ‘artistic critique’ of alienating work relations ultimately contributed to a rejuvenation of capitalism (Boltanski & Chiapello, 1999/2018, p. 343). In other words, this critique, which foregrounds the desire for autonomy, was appropriated by management gurus, employers and neoliberal politicians to
establish a more flexible and project-structured world of work whose flip side was shorter employment contracts, de-unionisation, atomisation and self-exploitation.

The entrepreneurial self is the ideal neoliberal self in the sense that it cultivates a holistic orientation of oneself to the market (Mau, 2015). Neoliberalism configures human beings exhaustively as market actors, as ‘homo economicus’ (Brown, 2015, p. 31). This shift of subjectivity had deep implications for class relations (Skeggs, 2004, p. 75). On the one hand, it fractured already-weakened class bonds between middle-class employees by promoting individualism over collective action. On the other, this development towards a world of work based on creativity, networking, flexibility and self-control created new exclusionary mechanisms through ambiguity about roles, tasks, hierarchies and skills. Friedman and Laurison (2019, p. 133) have shown that people with high volumes of cultural capital can better play according to these (uncertain) rules of the game. Along these lines, it is important to note that the entrepreneurial ethic did not replace the masculine organisational ethic with egalitarian principles of classification in terms of gender. As Skeggs (2004, p. 74) has demonstrated, entrepreneurial culture still severely limits women’s opportunities on the labour market.

This broad-stroke recapitulation cannot capture the nuances of several decades of work, class and power relations. Furthermore, it is important to emphasise that the organisational self and the entrepreneurial self are ideal types. Throughout capitalism, both types have coexisted and continue to do so, often within a single subject (Reckwitz, 2010). However, the argument above establishes a changing tide in work and subjectivity formations. The ideal type of the entrepreneurial self provides us with a sense of the dominant middle-class culture of subjectivation prior to – and undergirding – the rise of digital capitalism.

So, what forms of subjectivity can be diagnosed among the new middle-class white-collar workers within consolidated digital capitalism? Surprisingly, research on these tech workers is rather scarce. Moreover, the existing studies primarily point to an intensification of post-industrial cultures of subjectivation. For instance, Neff (2012) shows how the entrepreneurial ideal of self-responsibility is cultivated through an expanded positive framing of risk in the internet industry. Neff argues that new media workers do not regard short-term contracts and uncertain career paths as threats, but rather envision these as opportunities. Wacjman’s study (2018) of Silicon Valley tech engineers who configure digital calendar apps also points to a continuance of the entrepreneurial ideal through intensified self-rationalisation. Wacjman suggests that engineers uphold a strong rationale of mechanising and quantifying human action to increase efficacy and reliability, which they then inscribe into the functions and user interfaces of widespread digital calendar apps. Furthermore, Marwick (2013) has demonstrated how tech workers must increasingly self-commercialise in digital attention markets, underscoring the status-orientation of tech workers and how this shapes the design of social media. A number of other important studies also point towards an intensification of entrepreneurial ideals among tech workers (English-Lueck, 2002; Irani, 2019).2 In this article, I will concentrate on the novel cultures of subjectivation that can be reconstructed within the new technical middle class of digital capitalism.
Methodology

The category ‘tech workers’ refers to a number of professional groups with a *family resemblance* (Wittgenstein, 1953), who share commonalities in terms of work sector, work characteristics, income and training. With the rise of the digital economy, the term has become a mostly exclusive (self-)classification of relatively affluent employees who code, design and manage digital technologies at internet-based firms (Tarnoff, 2020). Given the vast number of professionals who work in internet-related companies, I chose to focus on two groups with distinct positions in the professional field of tech work: data scientists and UX-designers. Data scientists primarily work back-end and deal with quantitative data. They can be considered as closely related to the engineering professions (Abbott, 1988, p. 91). UX-designers perform more front-end work and primarily operate using qualitative data. They hold more intimate relations with creative professionals (Reckwitz, 2017/2020, p. 83). I contend that similarities between these two distinct roles point to general features of work and subjectivity in the field of tech work.

I interviewed 40 tech workers, virtually via Zoom, between June 2020 and June 2021. The exploratory sample comprises 10 data scientists and 10 UX-designers in each of two countries: Germany and the United States. In the following empirical analysis, I deploy a coding scheme (# of interviewee, DS/UX, GER/US) to refer to these. The two national field sites were chosen because Germany is the leading digital economy in Europe while the United States is the leading digital economy in the world. Furthermore, Germany can be considered a coordinated market economy with a relatively strong welfare state, while the United States represents a liberal market economy with generally lower taxes but also fewer social services (Hall & Soskice, 2001). Another major difference is that Germany has retained a comparatively strong industrial sector and corresponding workforce vis-à-vis the US, which relies more heavily on the finance, media and tech industries. Given these variations, I hold that identifying similarities between actors across these two settings makes it possible to theorise about tech workers in the post-industrial West more generally. I recruited participants from established tech firms as well as startups. For the recruitment of interview partners, I relied on multiple strategies. I first made contact and was able to interview a number of data scientists and UX-designers through personal connections at both field sites. I then deployed a snowball strategy by asking my interviewees to provide me with further contacts. Aside from this activation of my social capital, I also contacted tech workers outside of my personal network through the online platform LinkedIn. Finally, I made use of the online-community website of a co-working space in Berlin that I joined during the COVID-19 pandemic. Their directory allowed me to get in touch with more tech workers in Germany as well as some who had moved to the United States.

I began the semi-structured interviews with an open question about how participants became involved in tech work. I then asked questions related to their work routines, motivations and societal worldviews. I concluded the interview with questions about their social background and personal lives. When conducting the interviews via Zoom, I found that all my interviewees had experience with online video software and appeared comfortable in using this tool. Nevertheless, I always used the first few minutes of the meetings to engage in small talk with my interviewees so I could get to know them at least briefly before launching into the interview. This allowed me to establish some
intimacy and trust. Furthermore, I made extensive use of follow-up questions, which allowed me to emphatically connect to my interviewees as well as to prompt a deeper reflection on their life experiences, taking the interview beyond intuitive argumentation or descriptive accounts.

The sample comprises 29 men, 10 women and one non-binary person. The virtual interviews lasted between 45 and 90 minutes – on average, a little more than one hour. I conducted my research in orientation to the principles and procedures of the Grounded Theory Program (Glaser & Strauss, 1967) as well Abductive Research (Timmermans & Tavory, 2012). Once the 40 interviews were complete, I reached theoretical saturation with regard to identifying four novel cultures of subjectivation that distinguish tech workers from the ideal of the entrepreneurial self. Further as well as longer interviews would be necessary to gain a more exhaustive understanding of the subjectivity of tech workers. For the qualitative analysis of the transcribed interviews, I deployed codes and memos with the goal of determining participants’ schemas. In the following empirical analysis, I use a select number of interview extracts to analyze the subjectivity of tech workers. My aim is to privilege analysis over description and to generate theoretical insights.

Empirical analysis: Beyond the entrepreneurial self

My interviewees were between 25 and 53 years of age, with a mean age of 35. The salaries varied significantly between Germany and the United States. In Germany, the tech workers I interviewed earned an average of about $75,000 a year. In the United States, the average earning was about $165,000 (different taxes and social security coverage will apply). The significant difference in earnings is partly due to the higher living costs but must also be attributed to the leading role of the United States tech industry. The average reported weekly work hours in Germany were about 40, and 50 in the United States. Almost all participants had a Bachelor’s degree; many held higher degrees. In the US, 10 of my 20 interviewees reported being a foreign national (Asia was an especially common continent of origin, but also South America and Europe). In Germany, 14 of my 20 interviewees reported a foreign national background (mostly from other European nations, though some were from South America or Asia). I did not enquire into citizenship status. Given the heterogeneity of these nationalities, I was not able to clearly identify the class backgrounds of my interviewees. On the basis of their parents’ occupations – which showed a high frequency of professions such as teachers, professors, engineers, lawyers and doctors – I can only speculate that (upper) middle-class backgrounds are likely overrepresented among tech workers. To my best knowledge, there has not been a representative study of the backgrounds of tech workers, and it is therefore not possible to establish the extent to which my sample is representative of tech workers more generally.

I will now proceed to reconstruct four novel cultures of subjectivation that characterise tech workers.

Critique of economic inequality

Since capitalism promised its employees autonomy, creativity and self-actualisation, social critique lost its magnetism; that is to say, fewer forces have mobilised against
precarity and deregulations (Boltanski & Chiapello, 1999/2018, p. xvi). My study of tech workers indicates that the social critique is returning. Certainly, tech workers still aspire to a way of life that is associated with artists. However, they rarely express dissatisfaction with the realisation of autonomy or creativity in their current work. Their critical capacities are sparked by a dissatisfaction with inequality rather than alienation.

We may differentiate two forms of social critique by tech workers: the critique of economic inequality and the critique of racial and gender inequality (which I will engage with in the following section). The critique of economic inequality is based on the consideration of capitalism as a labour-reliant system whose fruits are distributed unfairly. This schema manifests, for instance, in the following interview passage:

We are in probably one of the most interesting times. I don’t think we’ve seen this probably since the ’30s or ’40s, where there is a massive push towards socialism. And that comes because Walmart doesn’t pay, you know, even a decent wage. And, I read yesterday, the average CEO salary grew 1,000% over the last 30 years. The average for workers grew 16%. That disparity and income inequality is getting Jeff Bezos worth $180 billion [. . .] Bernie Sanders’ example is that Walmart pays its employees enough that they have to seek out help from the government for like food stamps, things like that. And yet the Walmart family is the richest family in the world. So, where’s the problem? That problem is big here in Silicon Valley. And when you take on Amazon, and you want to unionize the employees, they’re open to it because they know, Jeff Bezos, he’s making an obscene amount of money. (6 UX USA)

The senior UX designer from a US startup presents elaborate historical knowledge about rising income inequality. Furthermore, he connects this with a critique of capitalism in general, and the Walmart family and Jeff Bezos in particular. His social critique also carries a ‘class-based view of society’ (Thompson, 1966, p. 9). In his view, there are rich families and corporate bosses on the one hand, and workers, unions and socialist politicians on the other. The social world appears not as a flat network but rather as a conflictive and hierarchical system. Such a conflictive and hierarchical worldview was widely present among the tech workers I interviewed. This finding challenges public notions as well as some sociological accounts of knowledge workers as generally class blind (e.g. Beck, 1992). One data scientist I interviewed even spoke of ‘the middle class being squeezed’ (7 DS USA). Other tech workers showed concern around the situation of low-paid digital labourers such as gig workers. While it is important to note that tech workers do not extend the classification of ‘tech worker’ to low-paid digital labourers, they do critique their precarious work conditions. One interpretation is that the bright job prospects of tech workers allow for such expressions of solidarity.

Furthermore, a number of tech workers I interviewed present the critique of economic inequality with calls for a stronger governmental regulation of the industry:

Big companies, yeah, for example, Amazon, I’m always, I’m not too happy about the big power that it has, right, which we could consider in some places a monopoly. And I think it’s really time that it’s being looked at directly to see whether the company needs to be, and also Google, right, whether they need to be split. (6 DS GER)

If we conceptualise neoliberalism in the economic sense that the task of the government is to secure competition in markets, then this utterance can actually be interpreted as a genuine
neoliberal statement. However, if we understand neoliberalism rather as a ‘conduct of con-
ducts’ (Foucault, 1978/2008) that has interpellated subjects to be sceptical of market regulations (Mau, 2015) then this utterance can be understood as a statement that marks a disruption to anti-government sentiments. While some scholars generally attribute an unquestioned market-orientation to ‘the new middle class’ (Au, 2016, p. 213), I find that tech workers constitute a fraction that largely renounces this doxa. Most tech workers I interviewed believe that governments should play a stronger regulatory role. Politically, they identify as left, liberal or ‘green’ (especially in Germany) and could imagine joining a union.

However, despite prevailing commonalities and a significant sense of collectivity among tech workers, there is some inter-professional tension. I found that multiple UX-designers feel undervalued in terms of pay and recognition vis-a-vis more quantitative professions, such as data scientists. This tension carries the chance to erode practices of solidarity. Furthermore, the widely shared return of social critique must be critically questioned. Various scholars have argued that the modus operandi of being discursively distanced from capitalism and inequality has become part of a culture that is deeply intertwined with the contemporary economic system (e.g. Chouliaraki, 2013). While this critique of critique is important to bear in mind, I want to underscore that some tech workers do cultivate social critique beyond the discursive realm. This manifests in open-source activities that a number of my interviewees engage in. Furthermore, workplace solidarity was also evident among my interviewees. One data scientist from the US commented on engaging in the practice of sharing salary information in the workplace: ‘I firmly believe that pay transparency is big and important and huge. I think that it’s great for us to be able to share that with other people [...] it tends to be companies who benefit when we don’t share salaries’ (1 DS USA). This practice finds an institutional manifestation in platforms such as ‘glassdoor’. Another indicator that the social critique holds relevance beyond self-presentation is the fact that unionising practices led by tech workers have begun to develop at companies like Alphabet or Kickstarter (Tarnoff, 2020). Of course, however, it remains to be seen to what extent these various cultures of emancipation will create larger echoes.

Critique of a lack of diversity

The second strand of social critique by tech workers concerns a lack of diversity. Their concern manifests, in particular, through a critique of gender and racial discrimination. They critique the underrepresentation of women as well as people of colour in the tech industry. A designer at a big tech company in the United States reports that most of her fellow students at the university were female, but in the workplace most are men:

I do notice I’m the only woman on my team. During a meeting I’m the only one. Yeah. So I feel it’s not enough women in the tech industry. Um, yeah. I don’t know why. [...] There’s just more guys at school for a computer science major. So there’s more men workers. But for UX designers, I remember at school there’s more girls than guys. But at the workspace there is, like, more guys than girls. (2 UX USA)

A great number of my interview participants, clearly in touch with discourses in the academic and public sphere around gender equality and the ‘Black Lives Matter Movement’, problematised a lack of women and people of colour in tech.
Furthermore, the lack of diversity issue also surfaces in discussions around ‘bias’. Tech workers are concerned with the possibility of bias reproduction through their work products (see Benjamin [2019] on bias and digital technologies). They cultivate a new moral relationship towards work. Data scientists, especially, worry that algorithms may (re)produce the discrimination of disadvantaged groups:

I have problems with the sort of the application of AI and machine learning right now by large Silicon Valley players that are, you know, happily building their personal biases into, into algorithms and no end in sight. (6 DS USA).

Notably, though, when I asked whether we should, then, consider data and technology not to be vehicles for change, he disagreed:

No, I think you can use data. But if you’re going to use it to promote more equitable hiring, you have to be more nuanced and more powerful in your use of AI than just trying to find correlations. (6 DS USA)

Remarkably, the concern for diversity was more prevalent in the US than in Germany. While many German tech workers also critique a lack of diversity, the concern for data privacy is even more widespread. At both sites and across professions, though, data and technology are considered to be a problem as well as a (potential) solution. It can be argued that tech workers, who deal with the relation between human and non-human actors, recognise not only their class position but also their inscription power. They demonstrate a \textit{reflective technosocial relation to the digital means of production}. Of course, such a position strengthens the relevance of data science work. By highlighting the complexity and delicacy of data work, tech workers are able to position themselves as new professionals (Dorschel, 2021). Furthermore, some of my interviewees seemed to have a concept of diversity as a resource for new accumulation processes. Yet, it would be a one-sided interpretation to consider their concern with diversity as a mere strategy (with or without strategists). Unlike Brubaker (2020), I propose an understanding of ‘post-neoliberal subjectivity’ as a form of selfhood that holds potential not only for renewed domination but also for emancipation. The one-sided diagnosis of an intensification of market orientations and influences does not provide an encompassing understanding of the hearts and minds of tech workers. Like Irani (2019), I find that tech workers embody an honest longing for political purpose and world improvement that runs deeper than notions of ‘solutionism’ (Morozov, 2013) invoke. Tech workers talk a lot about the \textit{communal responsibility} of their craft with regard to their inscription power. Many of my interviewees expressed moral outrage over the role of ‘Cambridge Analytica’ in the 2016 US election. Moreover, the widespread concern for diversity (which was present among individuals from both marginalised and non-marginalised social groups) has also translated into practice, when, for instance, tech workers protested the firing of a Black ethics expert who said Google tried to suppress her research on bias (Wong, 2020). Tech workers continually express and at times demonstrate \textit{solidarity}. Thus, even though the concern for diversity does invoke new symbolic boundaries – in the sense that inclusiveness must be understood relationally, as a practice \textit{vis-a-vis} actors who are classified as
non-inclusive – it marks a new culture of subjectivation when compared with the critical attitudes of the entrepreneurial self, which are primarily concerned with limitations to personal and creative self-actualisation.

The mindful self

Another way in which tech workers show a transformation of the neoliberal ideal of the ‘entrepreneurial self’ is through their ethic of mindfulness. The discourse around entrepreneurialism had dissolved the boundary between work and life. Among tech workers we can now make out a counter-movement: a mindful redrawing of social and symbolic boundaries between work and life. Many workers I interviewed actually chose to work in the tech industry because of its seemingly better work–life balance compared to finance, consulting, or academia. Almost all tech workers I interviewed were able to tell me how many hours they worked per week. In opposition to the entrepreneurial self, whose prototypical lifeworld fuses the private and the work sphere, tech workers differentiate between the two. The COVID-19 pandemic and the introduction of widespread remote work was therefore actually not welcomed by most tech workers:

So one thing that I personally did was, I moved from a one bedroom to a two bedroom. Because I had my desk in my living room next to my couch. And you know, that actually made it so that I overworked. [. . .] There’s nobody who’s kind of like sitting next to me, going home. There’s nobody saying like, Emma [name changed], you’re here awfully late. [. . .] And, you know, I actually have to like set a schedule for when my first meeting of the day is and when my last meeting of the day is and block off time on my calendar so that I’m not going past it. (8 DS USA)

The interview extract demonstrates a longing for external rather than self-exercised control practices. With regard to the relation of work and life, we can diagnose a positive re-valorisation of boundaries between the two spheres. Notably, this ethic does not manifest in collectivist but rather in individual actions. Nevertheless, tech workers cultivate mindfulness in a way that did not fully empty the concept out into a form of ‘non-judgmental disengagement’ with capitalism (Purser, 2019, p. 241). Tech workers’ technology of re-differentiation can be interpreted as a reaction to the pathological flipside of the entrepreneurial self. According to Ehrenberg (2009), the ideal of flexibility and autonomy led to a ‘weariness of the self’. Burnout and depression amounted to major psychological and economic threats for white-collar workers. Aside from technologies of the self, such as yoga or meditation, tech workers try to individually avoid the weariness of the self by taking care of their mental health through clear boundaries between work and life. This can be combined with putting digital technologies to the side for some time – a so-called ‘digital detox’. Thus, a popular activity among tech workers is ‘spending time in nature’. A UX-designer from Germany told me:

I love to get away. I famously among my friends, I famously went to an island in the Pacific Ocean once, at which they don’t even have running water, you know, just to get away from technology [. . .] I like nature. (10 UX GER)
This interview extract also demonstrates the importance of ‘nature’ for tech workers. When I asked the final question of my interview: ‘What is your gut feeling, are future generations going to have it harder or easier in life than your generation?’, ‘nature’ was also referenced in the form of ‘imaginations of climate change’ (Yusoff & Gabrys, 2011). A slight majority of respondents were pessimistic and reported climate change as their greatest concern. Tech workers can thus be said to embody mindful selves in the sense that they are reflective about their own well-being and about the state of nature. This ethic, however, also holds potential for further commodification in the form of ‘green tech innovations’. Moreover, with regard to the care for mental health, mindfulness carries the chance to relocate the responsibility for psychological distress from the collective to the individual level (Purser, 2019). The emergent mindful self ultimately carries two layers that allow us to read mindfulness as a set of individualised practices integral to social and political transformation as well as a neoliberal mode of self-governance (Leggett, 2021, p. 4). Mindfulness thus exemplifies how technologies of the self can both challenge and reproduce power relations.

**A lifestyle of ordinariness**

Pierre Bourdieu convincingly demonstrated that taste and conduct of life not only represent but actively (re)produce class hierarchies (Bourdieu, 1979/1984). Interestingly, when asked about their typical leisure activities, my interviewees presented a lifestyle that invokes ordinariness. This data scientist, for instance, told me:

I like to run, you know – hang out with friends and family and go to concerts. You know, I have a little dog. And I like to kind of take my dog on walks and go to, like, coffee shops and things like that. (3 DS USA)

Aside from emphasising social activities, tech workers are keen to signal a lifestyle that does not appear to require very high volumes of capital. Such a presentation of an ordinary way of life also manifests in tech workers’ preferred choice of a ‘no-collar dress code’ (Ross, 2003) – which tech leaders such as Mark Zuckerberg have perfected. And at least from the outside, the offices of tech workers also appear rather unspectacular compared to the skyscrapers at which the ‘organisational self’ went in and out. The display of ordinariness among affluent tech workers challenges diagnoses of academic members of the middle-class as cultivating lifestyles of singularity (Reckwitz, 2017/2020). Despite their high volumes of economic capital and institutionalised cultural capital, tech workers are keen to signal an inclusive way of life. This lends support to studies that have shown that ‘ordinariness’ and ‘normalness’ can be deployed by middle-class members (María Luisa, 2008; Savage et al., 2001). One data scientist I interviewed even openly argues that he doesn’t prioritise highbrow cultural activities:

I enjoy Netflix. I enjoy spending time with my fiancée. I enjoy going out to bars and restaurants, drinking with friends, game nights, traveling a few times a year. You know, international travel is a lot of fun. And domestic travel is also fun. Yeah, those are probably the biggest things. I wish that I could add reading to that list. I need to get more into reading, but I just deprioritize that. (1 DS USA)
This data scientist lists a number of seemingly ordinary activities, again including many with a social character. However, while this self-presentation departs from artistic and singularistic ideals, it must be noted that in the context of gentrification processes, seemingly ordinary activities can quickly turn exclusive within inner-city districts in particular. Furthermore, international travel points to a rather exclusive spectrum of cultural activities. Tech workers frequently display a cosmopolitan lifestyle that requires high economic and cultural resources. The lifestyle of tech workers therefore provides support for the ‘cultural omnivores’ theory. With this concept, Peterson and Kern (1996) argued that the upper echelons of society are deploying both high-brow and low-brow culture in their day-to-day lives to distinguish themselves (see Childress et al., 2021 for a recent discussion). Building on Friedman and Reeves (2020), I argue that this lifestyle allows tech workers to establish cultural authenticity while pulling away from declining middle-class fractions economically. What is specific about tech workers is that they emphasise social activities within their lifestyle of ordinariness, enabling them to simultaneously shrug off a characterisation as genuine ‘nerd’. While popular culture depicts knowledge workers in the IT industry as socially unskilled nerds (see Kendall, 1999 or HBO’s show Silicon Valley), the presentation of ordinariness (which is part of an overarching omnivore way of life) attributes tech workers with social and communicative capacities.

**Post-neoliberal subjectivity and class formation**

While tech workers still cherish creativity, flexibility and individual techniques, I have shown how they cultivate four novel cultures of subjectivation that transform the ideal of the entrepreneurial self. How can we interpret this transfiguration? I argue that tech workers’ elements of a post-neoliberal subjectivity signal the formation of a *new middle-class fraction*. Supplementing Foucault with Bourdieu, we can understand tech workers as an emerging middle-class fraction through their distinctive subjectivity, which rests on specific classification principles and their linkage to different forms of capital. The return of the social critique demonstrates that tech workers are political subjects who share ‘common experiences […] against other men whose interests are different from (and usually opposed to) theirs’ (Thompson, 1966, p. 9). Most tech workers I met problematise economic inequality and display reflexivity about their class position. They identify as a collective, hold a hierarchical worldview, engage in workplace solidarity, and are sympathetic towards calls for more government regulation of the tech industry. This form of subjectivity can be accounted for, firstly, through the privileged labour market position of most tech workers, which grants them a sense of security, as well as by taking into account rising levels of economic inequality and the development of many tech companies towards quasi-monopolies – a paradoxical development that challenges neoliberalism from within by undermining the principle of competition. Tech workers critically reorient their worldviews in this context. Secondly, the tech workers’ concern for diversity points to a cultural repertoire of solidarity with ethnic and sexual minorities. In touch with public and academic discourses around gender equality, the ‘Black Lives Matter Movement’ and the ‘Cambridge Analytica scandal’, tech workers signal sensitivity and reflexivity for discrimination and are (self-)critical about the inscription of bias into digital technologies. Thirdly, the ethic of mindfulness among tech workers describes
a shared technology of the self that aims at a re-differentiation between work and life. This technology holds decommodifying potential but must be considered an individualist reaction to structural problematisations. Finally, tech workers display a shared lifestyle of ordinariness that is embedded within an omnivore way of life and linked to relatively high forms of economic and cultural capital (Childress et al., 2021; Peterson & Kern, 1996). While engaged in both high-brow and low-brow cultural activities, tech workers are keen on signalling an inclusive lifestyle with a genuine social character. This lifestyle of ordinariness allows tech workers to establish cultural authenticity as well as shrugging off the character type of the nerd.

In assembling these heterodox cultures of subjectivation, tech workers stand for a new middle-class fraction: they are forming a new type of ‘technical middle-class’ (Savage, 2015, p. 127). Tech workers show contours of a post-neoliberal subjectivity in the sense that they open and navigate a space of possibilities beyond a holistically market-oriented self. This subjectivity distinguishes tech workers from other occupational segments with similar volumes of capital, such as financial professionals. A recent study has shown that bankers, for instance, are still very much tied to a subjectivity that is aligned with the ideal of the entrepreneurial self (Neely, 2020). With regard to their classification repertoires and practices, tech workers differ not only from established middle-class fractions but also from so-called ‘emerging service workers’. Unlike this group, tech workers deploy reflexive capacities not primarily as a form of ‘ironic self-awareness’ (Savage, 2015, p. 134) but rather in the service of a multifaceted critique of capitalism that partly translates into non-discursive practices. Furthermore, while tech workers do cultivate some singularistic practices in line with Reckwitz’s diagnosis of the subjectivity of the academic and cosmopolitan ‘new middle class’ (Reckwitz, 2017/2020), their intensive critique of capitalism along with their orientation towards collectives, their technologies of re-differentiation and their presentation of an ordinary lifestyle all point towards components of a distinct middle-class subjectivity.

However, a sociological perspective on shifting subjectivities must extrapolate possible (unintentional) consequences and new forms of distinction. One such consequence may be that the moral ethos of tech workers creates new symbolic boundaries (Chouliaraki, 2013). Tech workers display a deep longing to be middle-class wealthy and morally worthy. But as Sherman (2019) has demonstrated with regard to the upper-class, a moralising modus operandi can be deployed to legitimate one’s privileges. Moreover, I hold that the subjectivity of tech workers carries the possibility of being appropriated for a rejuvenation of capitalism. Tech workers’ concerns around diversity, in particular, could be made to serve as yet another ‘new spirit of capitalism’ (Boltanski & Chiapello, 1999/2018). There is not only a moral but also an economic reasoning for gathering people from different backgrounds to collaborate in innovation (Irani, 2019, p. 14; Skeggs, 2004, p. 85). Diverse project teams are considered to perform better at developing ‘innovative’, ‘responsible’ as well as ‘bias-free’ products and services. In this way, tech workers’ concerns around diversity are in the process of being instrumentalised by tech companies for a ‘play of differences’ and a rebranding as ‘woke’ corporations. To prevent this appropriation, tech workers would need to continue flanking their concern for diversity with an equally prominent critique of economic inequality. Otherwise, the concern for diversity would likely stabilise the system of ‘progressive neoliberalism’ (Brenner & Fraser, 2017).
The ethic of mindfulness and the lifestyle of ordinariness also carry the potential for appropriation and endogenisation by capitalism. At first glance, by prompting a re-differentiation between work and life, the ethic of mindfulness appears to be a practice of decommodification and a technique to counter ‘social acceleration’ (Rosa, 2005/2013). However, this new ethic can also function as a commodifying technique of the self because it can be deployed to heighten work performances. Along these lines, the discourse around the technique of mindfulness risks individualising mental illnesses or occupational phenomena such as burnout, as well as their proposed solutions (Leggett, 2021; Purser, 2019).

Finally, even the lifestyle of ordinariness, which seemingly ruptures symbolic boundaries, is not free from potential complicity with capitalism and class reproduction. The signalling of an ‘ordinary’ way of life by affluent actors can be interpreted as a strategy (without strategists) to establish cultural legitimacy (Skeggs, 2004, p. 116). Friedman and Reeves (2020) diagnose this mode among Britain’s upper class. My research shows that this cultural lifestyle also exists among the new technical middle class. The lifestyle of ordinariness allows tech workers to appear non-elitist even as they pull away, in an economic sense, from a generally declining middle class in Western post-industrialism (Piketty, 2014). Last but not least, tech workers’ specific presentation of an ordinary self also contains the strategic component of allowing them to overcome the image of the genuine nerd. This can be interpreted as a move that permits tech workers to appear suited to occupying jurisdictions that require communicative and emphatic capacities.

**Conclusion**

The few existing studies about tech workers primarily point to an endurance of entrepreneurial values such as creativity, flexibility, or autonomy. This is a useful finding that I do not dispute. However, this account is not sufficient for an overarching understanding of the hearts and minds of those responsible for rendering and encoding the digital technologies that permeate social life. This article has demonstrated that tech workers show contours of a post-neoliberal subjectivity. Negotiating a new Faustian pact, tech workers transfigure the ideal of the entrepreneurial self. Tech workers are critical of economic inequality and reflective about their class position; they demonstrate solidarity and show concern with gender and racial discrimination; they practise an ethic of mindfulness and individually redraw boundaries between work and life; and they share a lifestyle that signals ordinariness. These hold the potential to act as emancipatory schemas and technologies of the self – however, the red-collar cultures of subjectivation also propel new symbolic boundaries and could be appropriated for a rejuvenation of capitalism. This ambivalent empirical finding calls for increased recognition of the potential for emancipation and domination within contemporary capitalism. Furthermore, it points to the need for theoretical heuristics and frameworks that allow us to study these two related dimensions of social life.

Further empirical research is necessary to gain more exhaustive accounts of tech workers and to better understand the economic and cultural – as well as technological – underpinnings that shape their heterodox subjectivation. Expanding on this exploratory study of tech workers would also allow to enquire deeper into national differences and
corresponding varieties of tech worker subjectivation. Furthermore, the findings of this study call for research into just how widespread this transfiguration of subjectivity might be. Do other middle-class fractions also show signs of a post-neoliberal subjectivity? Strikes and unionisation efforts by teachers and university graduate students in the United States point to unrest in the middle-class layers of society beyond the digital economy. With regard to the digital labour debate, we may consider the controversial question as to whether the lower classes of digital labourers, such as gig workers, now potentially cultivate a more entrepreneurial subjectivity than the new technical middle class of digital capitalism.

Additional methodological perspectives on the field of tech could also provide further important insights. Discourse analysis could reveal the greater knowledge–power nexus that undergirds the looming cultural rejuvenation of capitalism. Ethnographic research could provide insights into how endogenisation of critique is practised (and resisted) within tech organisations. Finally, quantitative research on the social backgrounds of tech workers could complement qualitative analyses. In dialogue with each other, such studies could provide a starting point for critical interventions before cultural ideas and subjectivities generate unintentional effects that exacerbate, rather than mitigate, inequalities.

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Notes

1. Though I cannot provide a nuanced discussion of this critique due to space constraints, it is important to note that there are important exceptions in Bourdieu’s rich oeuvre (Bourdieu, 1992/1996, p. 56; 2002/2008; see also Friedman, 2016).
2. Within these different studies there are also findings that point to new cultures of subjectivation. Irani, for instance, has drawn attention to the fact that tech workers embody a deep longing for political hope and cultural purpose (Irani, 2019). However, her study Chasing Innovation: Making Entrepreneurial Citizens in Modern India primarily highlights the intensification of entrepreneurial ideals among tech workers.
3. I speak of tech workers as a middle-class fraction that is ‘emerging’ or ‘forming’ to highlight the unconsolidated nature of their distinct subjectivity.

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