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Labour process theory and the gig economy

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Abstract

What are the distinctive traits that characterise work(ing) through (and for) a digital platform? In the burgeoning debate on the 'gig economy', a critical examination that comprehensively addresses this issue beyond specific examples or case studies is currently missing. This article uses labour process theory, an important Marxist approach in the study of relations of production in industrial capitalism, to address this gap. Supported by empirical illustrations from existing research, the article discusses the notions of 'point of production', emotional labour and control in the 'gig economy', to argue that labour process theory offers a unique set of tools to expand our understanding of the way in which labour-power comes to be transformed into a commodity in a context where the encounter between supply and demand of work is mediated by a digital platform, and where feedback, ranking and rating systems serve purposes of managerialisation and monitoring of workers.

The ideal organization toward which the capitalist strives is one in which the worker possess no basic skill upon which the enterprise is dependent and no historical knowledge of the past of the enterprise to serve as a fund from which to draw on in daily work, but rather where everything is codified in rules of performance or laid down in lists that may be consulted (by machines or computers, for instance), so that the worker really becomes an interchangeable part and may be exchanged for another worker with little disruption.

(Braverman 1994: 24–25)

This article uses labour process theory (LPT), a well-established Marxist approach in the sociology of work and a key resource for the study of the workplace in industrial capitalism, to offer new insights on the emergent phenomenon of the 'gig economy' (Fleming, 2017; Moisander et al., 2017; Kassi and Lehdonvirta, 2016). Broadly ascribed to the rise of a 'sharing economy' (Schor, 2016), the term 'gig economy' identifies the establishment of a capital-labour relationship between a worker and a digital platform, that mediates workers' supply and consumer or professional demand for the completion of a small task or 'gig' and operates at once as a market intermediary and a 'shadow employer' (Friedman, 2014). The diffusion of this way of working, epitomised by the popularity of platforms such as Uber or Deliveroo, has spurred quite significant controversy. This has mainly revolved around the critique to the employment status of workers, who are considered as self-employed and not as employees in this context (De Stefano, 2016; Woodcock, 2016; Tassinari and Maccarrone, 2017). However, existing research has mostly focused on specific examples of 'gig work' and their features. On the contrary, a critical investigation that addresses what is unique to the 'gig economy' as a way of work(ing) through (and for) a digital platform, what the various

examples have in common, and how relations of production change in this context, is currently missing from the debate.

I argue in this article that labour process theory represents a fundamental and currently under-utilised resource to expand our understanding of the role of digital platforms in intermediating the capital-labour relation. Focused on the study of relations of production at work, labour process theory looks at the 'conversion movement' that transforms labour-power into a commodity (for a recent synopsis of labour process scholarship see Smith, 2015). Accordingly, I contend that labour process theory provides us with an important heuristic and framework for the study of the practices of managerialisation and organization of work enacted by digital platforms, as well as to investigate the role of digital data and platform metrics in the transformation of labour-power into a commodity.

Supported by a selection of empirical illustrations from existing research, the article questions the 'gig economy' by looking at three aspects that are part of the labour process tradition, and particularly of the so-called 'core' theory (see Thompson 1989, 1990), that allow to observe more closely some of the most interesting (and concerning) aspects of 'gig work'. First, it investigates where we can locate the 'point of production' in the 'gig economy', as the undertaking of work activity is not linked to the access to a single, designated 'workplace' whereby workers are subject to managerial directions. Second, it discusses what relationship exists between emotional labour and 'gig work', looking at the functioning of the feedback, ranking and rating systems that are embedded within most of these platforms. Third, it addresses the forms of managerial control that are enacted upon 'gig workers' as a consequence of working through (and for) a platform that collects detailed data

about their work activity, mostly through the same feedback, ranking and rating systems, and produces metrics that are used for the evaluation of their performance.

Based on this analysis, the article suggests to understand platforms as a digital-based 'point of production', intended as the 'place' where the labour process is enacted upon workers. This occurs insofar as platforms essentially repurpose and fence off the social relations involved in 'gig work' in a newly-delimited, unique environment. Furthermore, the article highlights the role played by feedback, reviews and rating systems in the labour process, on the one hand by eliciting a qualitative intensification of it, and on the other hand as instruments for the enactment of techno-normative forms of control. These insights, I contend, shed new light on what changes when a digital platform intervenes in the capital-labour relationship in its double capacity of market intermediary and 'shadow employer' (Friedman, 2014). At the same time, they help conceive more clearly of 'gig workers' not simply as users of a digital medium but as 'actual' workers subjected to a capital-labour relation, and consider them accordingly.

This article contributes to existing research in two main ways. First, it brings labour process theory directly in conversation with the debate on digitally-enabled and digital-based forms of work, a context to which labour process research has so far been largely seen as 'resistant', due to a perceived privileged attention to the waged workplace (Bohm and Land, 2012), while at the same time other Marxist approaches - particularly Autonomist Marxism and the 'digital labour' framework - became popular. Labour process theory, on the contrary, with its focus on relations of production, control, autonomy and consent in the workplace, is here argued to represent a highly valuable resource that can complement and enrich existing

critical accounts of digitally-enabled and digital-based work which, alone, are unable to conceive of the various facets of this complex phenomenon.

Second, it contributes to existing research on the 'gig economy', a growing field of inquiry that has attracted attention from a variety of disciplines within and beyond the social sciences. As a result of the great level of variation that characterises these platforms and the kind of work involved, a plurality of sometimes conflicting terms have been used to identify this context (Howcroft and Bergvall-Kareborn, 2018), such as 'crowd work' (Huws and Joyce, 2016) and 'online labour markets' (Graham et al., 2017). For consistency, this paper adopts the broad framework proposed by Heeks (2017), who defines the 'digital gig economy' as a 'continuum' that includes: a) so-called 'click-work' platforms such as Amazon's Mechanical Turk, whereby workers are hired for the performance of digital-based micro tasks that contribute to a broader project they do not see finished (see Irani, 2015); b) platforms that facilitate the meeting of workers with clients for the hiring of either local, manual labour (e.g. electricians, decorators, cleaners on platforms such as TaskRabbit or Handy), or global knowledge-based freelance work (e.g. graphic designers, translators etc. on Upwork or Freelancer); c) consumer-led service work such as delivery work or cab driving (e.g. Uber, Deliveroo), whereby a platform intermediates the local consumer demand of a specific service. As a consequence, the focus of this paper excludes platforms that do not directly engage with workers in a capital-labour relation (e.g. Airbnb).

Estimates of the number of workers involved in the 'gig economy' are difficult to provide, considering this is a global workforce composed by individuals who may register on multiple platform at once, and that is difficult to take apart from broader figures on freelancing, contingent work and nonstandard employment. Nevertheless, the many reports that have been

recently produced by organizations, think tanks and academia (e.g. Balaram et al., 2017; Berg, 2016) account for what seems to be a small but growing picture. It has been reported that at least 45m million users worldwide registered as workers on digital platforms in 2015 (Codagnone et al., 2016). In the US, the percentage of workers engaging in work arrangements alternative to standard employment has grown from 10.7 percent to 15.8 percent of the entire workforce between 2005 and 2015, with 'gig work' accounting for 0.5 percent overall (Katz and Krueger, 2016). In the UK, it is estimated that 1.3 million workers (around 4% of the entire workforce) regularly engage in 'gig work' (see Taylor et al., 2017). Platforms such as Uber and Deliveroo operate in more than 75 cities in the UK alone, and in more than 500 cities in the world (Balaram et al., 2016). Beyond the employment status dispute, existing research has highlighted that for many 'gig workers' this is not the sole source of income, yet it constitutes a big portion of their earnings and time spent at work (Paolacci et al., 2010; Berg, 2016; Alacovska, 2018). Practices of global outsourcing, that drive wages down and reproduce or foster inequality in developing parts of the world, have also been reported (Graham et al., 2017), together with issues of inequality based on race, gender and ethnicity (Hua and Ray, 2017). However, as said, a contribution that addresses more comprehensively the specificity of 'gig work' beyond individual examples and engages with existing theoretical interpretations of work, is currently missing from the debate.

The paper is organized as follows. In the next section I will set the theoretical framework for this study, delving in a discussion of labour process theory and providing reason of why I contend this represents an important resource for the study of the emergent 'gig economy'. Then, I will engage with the three aspects that I have identified as most useful to the study of the 'gig economy' from a labour process perspective - in order of appearance, the 'point of

production', the notions of emotional labour and managerial control. I will then conclude by elaborating further on the implications of this discussion for future research.

Labour process theory and digital work

Following the publication of Harry Braverman's *Labor and Monopoly Capital* (1974), the approach known as labour process theory (or LPT) has affirmed throughout the 1980s and 1990s as an important strand of Marxist research in the study of work and employment. In its initial phase, it has been applied in various industrial contexts to unpack the relationships between the employer, who owns the means of production, and the worker as the possessor of labour-power, and how this sets in motion the 'labour process', conceived of as the process of transformation of labour-power in a commodity according to set relations of production (Burawoy, 1979). This resulted in an approach that proved to be particularly apt to study autonomy, control and consent within industrial capitalism, as well as the logics of the 'degradation' of skills that Braverman's book highlighted as a key feature of capital accumulation (Knights and Willmott, 1990).

Across the 1990s and the early 2000s, the approach known as the 'core theory' of labour process research developed and affirmed as central to the discipline. This has been defined in the work of, particularly, Thompson (1989, 1990) and Smith (Thompson and Smith, 1998; Smith, 2006) and found extensive application until recently (e.g. Vincent, 2011), while at the same time attracting remarkable criticism (see Jaros, 2005). As outlined in Thompson (1990), the main principles of the 'core theory' of labour process can be summed up in four main points: a) the study of the 'function' of labour to capital accumulation in the set context of the workplace, described as the 'point of production'; b) a peculiar attention to the role of skills in this process; c) a focus on the logics of control of the labour process exerted by an

employer as a key pre-condition to the 'conversion movement' that transforms the labour-power of workers into a commodity or service (see also Smith 2006, 2015), and d) the unpacking of the social relations between capital and labour in the 'point of production' as 'structurally antagonistic', thus resulting in a focus on autonomy, consent and resistance at work (see Thompson, 1990; Smith and Thompson, 1998; Jaros, 2005; Thompson and Vincent, 2010). Alongside these principles, the 'core theory' also explicitly refuses Marx's labour theory of value as empirically and conceptually limited in the understanding of the relations of production involved in the labour process (Thompson, 1990; Jaros, 2005).

Critics of labour process theory have argued that this strand of research has been to some extent 'resistant' (Bohm and Land, 2012: 220) to acknowledging the transformations of labour in the past decades, particularly with reference to the affirmation of a 'new economy' based on networks, information and the 'standardisation' of nonstandard forms of employment (Cappelli and Keller, 2013). As the proponents of the 'core theory' approach also recognize, labour process research has been perceived as primarily, although not exclusively, focused on the study of the 'waged workplace' (Thompson and Smith, 2009: 917) and, as a consequence, in being 'less equipped to address, amongst other things, issues such as the varieties of (often informal or unwaged) types of work, temporal and spatial dimensions' (*ibid*., 2009: 917). Yet, it has also been argued, labour process theory has at its disposal a significant array of instruments that would be extremely useful to the study of forms of capital appropriation that occur beyond the ordinary notion of a workplace (Bohm and Land 2012: 236) and whereby digital technologies are used for purposes of control and surveillance at work (Beverungen et al., 2015; Moore and Robinson, 2015; Moore, 2017).

At the same time, however, other forms of Marxist critique mainly coming from critical media research have emerged as influential in the study of the relationship between digital technologies and work. Among these are so-called Autonomist (or post-workerist) Marxism, which has been applied widely especially in the critique to work in the creative and cultural industries (see for instance Hoedemaekers, 2017), mostly through the notion of 'immaterial labour' (Lazzarato, 1997) - and the 'digital labour' framework (Fuchs, 2014), which has affirmed as a critique to the exploitation of the unpaid activity of users generating content on social network sites, an activity considered as 'work' on the basis of an orthodox application of Marx's labour theory of value in the digital realm.

A number of authors have written at length about the differences and disagreements between labour process theory and other Marxist approaches to work and employment, as well as on the dispute around the validity of the labour theory of value (see Thompson and Briken, 2017; Beverungen et al., 2015; Bohm and Land, 2012; Arvidsson and Colleoni, 2010; Jaros, 2005). While there is no sufficient space here to engage with this debate at length, it should be noted that the latest advancements in the relationship between digital technologies and work - of which the 'gig economy' is exemplary - actually mark a shift away from the idea of digital activity as unpaid or invisible work. While there still are unremunerated activities undertaken on such platforms that may be seen as 'unpaid work time', yet those involved are no longer simply users but 'actual', paid workers who engage in a 'real' capital-labour relation mediated by a platform. Hence, albeit being fashionable also in critical management, organization studies and sociology (see Beverungen et al., 2015; Bohm and Land, 2012), it may be argued that the conceptual possibilities offered by these other Marxist approaches for the raising of a critical stance towards 'gig work' actually remain limited. On the contrary, there seems to be a timely necessity to study 'gig economy' platforms not simply as

(exploitative) digital media, but rather from the side of work, and focus on the conditions by which relations of production come to emerge within such context.

To this end, I suggest we turn to labour process theory. The labour process tradition offers an approach that can significantly enrich our understanding of the relations of production that characterise digital platform work and help us unpack some of the key aspects that are called into question in this context. Examples of studies that have approached digital platform work 'on its own terms', although not explicitly using a labour process framework, are promising (see for instance Silberman and Irani, 2015; Woodcock, 2016; Rosenblat and Stark, 2016; Graham et al., 2017; Fleming, 2017) to the aim of developing a critique to its most controversial aspects. Nevertheless, in order to be able to offer insights about 'gig work', labour process theory needs to 'extend' its interest beyond the usual territory of the waged workplace. The 'gig economy' is in fact a fluid context whereby the fixed employer-employee relationship has been replaced with a new kind of flexible structure, in which platforms 'cut into the chain' (Kushner, 2013: 1249) of supply and demand of work and re-mediate the social relations that determine the distribution and appropriation of labour. Put differently, labour process theory is required to acknowledge the specificity of this context and adapt accordingly without nevertheless losing its own identity. In the sections that follow, I will show how labour process theory can shed new light onto the specific features of 'gig work', looking at the notions of 'point of production', emotional labour and control in the 'gig economy'.

The 'point of production' in the 'gig economy'

For labour process theory the 'point of production' represents that specifically designed, clearly delimited environment whereby the transformative process of labour

normally takes place - the workplace, most notably the factory - according to a fixed set of rules and with relatively static sets of participants - managers and workers, in hierarchical relationship (Braverman, 1974; Burawoy, 1979; Thompson and Smith, 2009). While being criticised for its peculiar attention to the ordinary industrial workplace, in fact labour process research has eventually acknowledged the distinctiveness of different points of production in advanced capitalism (Thompson and Smith, 2009). Examples include research on the service economy (Sturdy et al., 2001; Bolton, 2004; Vincent, 2011) and creative work (McKinlay and Smith, 2009), amongst others. Yet, as argued by Thompson and Smith (2009) there is a need for labour process research to expand its investigation into how information and communication technologies "*decentre work* from a single physical site and open up working to any space with communication facilities" (2009: 923-924). The 'gig economy', I contend, serves as an excellent case study for this purpose.

I argue in this section that 'gig work' platforms represent a distinctive, digital-based 'point of production' insofar as platforms repurpose and fence off the social relations involved in 'gig work', and hereby transform them into relations of production. In the 'gig economy', the 'gig' is in some cases undertaken by a worker in the very same moment s/he receives it - e.g., a cab ride or a delivery - while in other cases it is executed at a different time - e.g. a graphic design job. Also, the demand of work can either be global or local, and the task executed by the worker can be digital-based or undertaken as an actual, physical activity. In any case, however, the common denominator is the presence of a mediator - the platform - that enables the meeting between a 'hirer' and a worker, and in so doing establishes a nonstandard employment relation with the latter, on a self-employed basis. Hence, irrespective of 'where' exactly the work is done, either physically out in the street as in the case of a courier or a cab driver, or digitally as a Mechanical Turker or a graphic designer on Upwork, beyond their

role of market intermediaries platforms act as the milieu within which the capital-labour relation is enacted upon workers. Akin to a factory, or an office, the platform represents the 'place' whereby the social processes of production are put under logics of managerialization and work organization within a single, clearly delimited environment. Like in a traditional workplace where workers clock in with their timecard, 'gig workers' log in to an app and, in so doing, come to be subject to an external authority that: a) translates consumers' or clients' demand into orders they need to execute, and that they receive in the form of digital notifications; b) determines what tasks they have to execute, where and when; c) directly or indirectly determines how much money they will be paid for the execution of such tasks; d) directly or indirectly controls the execution of the work, and a worker's performance at work.

There is growing evidence in existing research of the various ways in which 'gig work' platforms represent 'points of production' as here argued. For instance, Silberman and Irani (2015) show how on Amazon's Mechanical Turk (AMT), where workers undertake repetitive micro tasks that do not normally require particular skills, a basic, three-step labour process is in place by which "requesters post tasks to the site; workers choose tasks to do and do them; and the requester reviews - and "approves" or "rejects" - the work" (Silberman and Irani, 2015: 6). Work is undertaken digitally on the platform by workers who are then paid directly by the same platform for their completed tasks. The role of the platform is therefore that of providing with an enclosed infrastructure through which this process can take place. The platform ultimately profits upon this intermediation by charging a percentage fee on the basis of the value of the 'gig' - on AMT, for instance, this is between 20% and 45% (Silberman and Irani, 2015; Paolacci et al., 2010).

An analogous dynamic characterises online freelancing platforms such as Freelancer or Upwork, that intermediate between professional clients and highly-skilled knowledge workers such as graphic designers, translators or writers. On these platforms, when a job is posted by a client, workers compete - 'bid', technically speaking - to be assigned the 'gig'. The 'winner' then executes the work, independently and not on the platform, but then has to report back to the platform when the task is completed (Graham et al., 2017). It has been argued that platforms such as Upwork enact a process of 'skills arbitrage' and 'labour arbitrage' (Graham et al., 2017: 8) that managerialises the encounter between a worker and a professional client, as the social relations that come to establish between a worker, a client and the platform forcefully take place on the platform, and cannot exist outside of it.[1] Similarly, on service work apps such as Uber and Deliveroo, although the work undertaken by workers is not digital-based, the platform repurposes and managerialises the encounter between a worker and a consumer, and operates as the 'point' whereby the labour process takes place. Drivers, in the case of Uber, or couriers, in the case of Deliveroo, make themselves available through the app to consumers/clients for the execution of a 'gig'. The platform then regulates their tasks and pays them for their work. Hence, the social relations of production in this context take place on the platform alone, and do not exist outside of it.

A key difference among individual platforms, however, resides in the value of a 'gig'. While still charging a percentage fee, on platforms such as AMT or Upwork the value of a 'gig' is normally pre-determined by the client on the basis of set parameters. On the contrary, on platforms like Uber and Deliveroo this is actually determined by the platform itself on the basis of algorithmic elaborations the specifics of which are inaccessible to workers. For instance, the Uber algorithm 'decides' the value of a ride on the basis of the time and place of the consumer's request, current traffic conditions and the availability of other drivers at the

same location, all of this accounted for in real-time. Workers cannot intervene in this calculation and can only accept, or decline, the ride (Rosenblat and Stark, 2016). Similarly, Deliveroo couriers are paid by the platform on a fixed 'piece-work' basis (in the UK this amounts to £3.75 per gig).[2] This means, therefore, that the size of local demand significantly affects one's income, as the geographic dispatch cannot be changed independently by a worker (Woodcock, 2016). In both cases, however, despite where the work is executed, it is through the app's notification system that a worker receives the order to undertake a 'gig', and logging in and out of of the app determines one's availability to work.

While it seems difficult to talk about a unique 'point of production' in a context that, as seen, accounts for high levels of variation between platforms for what concerns where the work is executed as well as the nature of the work itself, evidence actually suggests that 'gig economy' platforms represent the 'place' where the social relations between a worker and a client or consumer become relations of production. Put differently, platforms represent an example of 'decentred' point of production whereby 'communication facilities' (Thompson and Smith, 2009: 923–924) enable the organization of work and the managerial role to be enacted upon workers. Yet, the functioning of this dynamic is ensured by the data produced by both parties (consumers/clients and workers) as part of their encounter, and by the metrics resulting from the processing of those data. Thus, an element of peculiar interest is given by the role that these metrics, particularly feedback and ranking systems, play in this context. These account for a number of functions in relation to the work that each worker undertakes, are commonly used for quality assurance purposes and significantly impact upon one's earnings as well as chances to continue to work. Also, the presence of metrics helps ensuring that the social relation between a worker and a consumer or professional client remains mediated by the same platform - work data and metrics in fact are not portable from one

platform to another. In the next section, using the notion of 'emotional labour' (Hochschild, 1983) I will argue that this amounts to a new kind of qualitative intensification of the labour process, that requires dedicated attention.

Emotional labour and 'gig work'

The notion of 'emotional labour' (Hochschild, 1983) has been acknowledged by labour process research as an important social process playing a key role in the way social relations come to be subjected to forms of managerial control (Brook, 2013). Particularly in the context of the 'service economy' in the early 2000s, labour process research on call centre work (Korczinsky, 2003), interactive service work (Warhurst et al., 2000) and customer care work (Sturdy et al., 2001) has been pivotal in acknowledging how 'emotion management' and 'emotion work' amount to a 'distinctive form of skilled work' (Bolton, 2004: 20) that represents a key component of the labour process.

In this section I show that many 'gig economy' platforms embed forms of emotional labour at the heart of the labour process as a result of the role feedback, ranking and rating systems play in regulating social interaction between workers and consumer/clients. Alongside the job that 'gig workers' need to do, on a large number of platforms the execution of the 'gig' is bound to a direct or indirect system of feedback, rankings and/or ratings that ensures a set of consumer-generated or client-generated data are attached to each worker. These get more or less formally translated into metrics, most commonly a reputational score, and used by consumers/clients as forms of evaluation of workers and proxies for trustworthiness. This therefore requires workers in such contexts to engage in forms of emotional labour as a fully recognized and mandatory component of their work. While this has always been a part of service work, the new element in this picture is given by the visibility of these metrics and the

fact that these are tied to a number of managerial aspects, particularly performance evaluation, monitoring and control (more on this in the next section). In coherence with labour process research on the service economy, I contend this should be seen as a form of qualitative intensification of the labour process, being the actualisation of a previously invisible 'economy of feelings' (Vincent, 2011).

On online freelancing platforms, for example, Alacovska (2018: 13) reports that the workers surveyed in her study undertake 'strategic relational work' with clients to the aim *"of forging intimate and close relationships and of securing a favourable position in online relational infrastructures"*. This 'favourable position' is given by good feedback and reviews, that are compiled by clients and transformed - by means of a proprietary and undisclosed algorithm - into a set of rating of each worker. This is displayed on each profile page in the form of 'stars', or a score.[3] Existing research confirms how these metrics are a determinant aspect in the decision-making process of hiring enacted by clients on online freelancing platforms (Leung, 2014; Gandini et al., 2016) and are very much 'fetishised' by workers for this same reason (Gandini, 2016). Similarly on Uber, alongside the activity of driving, a relevant part of the work of a driver actually consists into being a friendly and reliable 'host', that is to put at value one's disposition and character in the engagement of a micro-social relation during the ride. As each customer is required to 'rate' the driver immediately after a ride has ended, the reward for this 'emotion work' is the favourable review that the customer will write about the ride and the driver (Rosenblat and Stark, 2016). This in turn guarantees that a worker's metrics on the app remain sufficiently high for her/him to be employable. As we will see in the next section, a bad aggregate rating for an Uber driver results in her/him being prevented to work. Rosenblat and Stark, who explicitly refer to emotional labour and labour process

research in their work, suggest that: "*Drivers in the Uber system perform emotional labor in exchange for ratings instead of tips*" (2016: 3775).

Again it helps to see the 'gig economy' as a continuum with degrees of variation within it (Heeks, 2017). It must be acknowledged in fact that platforms with no human interaction involved, and therefore no direct emotional labour elicited, do exist. However, it is interesting to note that, within such contexts, other metrics come to be used in the same way as a 'reputational' evaluation by the hiring party. On Amazon's Mechanical Turk, for instance, the main metrics available to 'requesters' (hirers) are the number of completed tasks and the 'approval' rate. While the 'approval' metric does not result from the performance of emotional labour by workers, in practice it behaves as a reputational score. Although 'rejects' can ultimately be motivated by many reasons and do not necessarily account as a quality judgement performed by 'requesters', only approved tasks are paid, thus rendering the 'approval' metric an implicit proxy for a worker's reputation, quality of work and trustworthiness (Silberman and Irani, 2015).

In other words, it may be argued that reputational evaluations seem to be fundamentally necessary to the functioning of the 'gig economy' as a form of organization as a result of its decentred nature. Either more commonly as a result of emotional labour, or else culturally conceived as proxies for one's skills, arguably reputational metrics have a considerable relevance in such contexts, insofar as these impact upon a worker's status and influence a consumer/client's hiring decision. As seen, in many cases these reputational evaluations originate from forms of quite standard emotion work as 'skilled work' performed by workers (Bolton, 2004). In the study of service work, labour process research was able to identify 'the rise of 'generic' skills – adaptability, motivation, co-operativeness - many of which are

attitudes, social predispositions and character traits' (Thompson and Smith 2009: 920-21) and to highlight their relevance with regards to what capital requires from labour-power in the framework of a post-Fordist logic of accumulation (see for instance Thompson and Smith, 2009). In the 'gig economy', this is seemingly extended further insofar as 'emotion work', when present, no longer represents a kind of invisible labour but actually a very visible one, since a worker's metrics, feedback, rankings and/or ratings are actually displayed on each platform.

As a result, it may be argued that the examples of 'gig work' discussed in this section are indicative of a qualitative intensification of the labour process by means of emotion work. Workers on platforms such as Upwork or Uber cannot but engage in the nurturing of their soft, 'generic' skills and social predispositions, not just as part of their work but to the specific aim of 'feeding' their reputational metrics or ratings. Elaborating on Vincent (2011), it may be said that 'gig work' represents a version of 'conforming' emotional labour that actualises a previously invisible 'economy of feelings' (Vincent, 2011) by embedding 'autonomous' and 'voluntary' emotion work within a prescriptive, 'regulated' environment - the platform, through the presence of feedback, ranking and rating systems - whereby this prescription is used to enforce the capital-labour relation upon workers (Vincent, 2011: 1375). The intensification is given by this combination and by the visibility of the resulting metrics, that renders social exchanges between parties akin to the transactional and 'compulsory' labouring of relations described by Gregg (2011) as a key feature of digitising workplaces. Yet, the presence of feedback, ranking and rating systems also serves as the baseline to the enactment of techno-normative forms of control and monitoring of one's work. I explore this aspect in greater detail in the next section.

Control

The issue of managerial control is a chief focus of labour process research. Control is historically conceived as an imperative dimension of the labour process in pair with the study of autonomy, consent and resistance at work (Thompson, 1990). Its forms and strategies vary across time and in relation to the logics of accumulation within which the capital-labour relation is observed (see Thompson and van den Broeck, 2010). Discussing the (back then) emergent issue of digital surveillance at work, Thompson (2002) argued that although "there has been some shift towards surveillance practices, there is insufficient evidence that a combination of electronic Panopticon and peer pressure is effective and distinctive enough to constitute a credible new model of control of the labour process" (2002: 138). Now, several years later, there is actually increasing evidence of the opposite. Digital technologies are in fact used to enact forms of control over the labour process in various contexts (Moore, 2017; Moore and Robinson, 2015) and particularly in the 'gig economy', whereby platform metrics transform 'peer pressure' into an instrument to monitor a worker's performance and productivity.

I argue here that 'gig economy' platforms represent an example of what labour process research describes as forms of 'techno-normative' control upon workers. These are articulated in two main ways. On the one hand, through the embeddedness of emotional labour at the heart of their labour process (Vincent, 2011) platforms elicit practices that are akin to the 'management by customers' identified by Fuller and Smith (1991), as feedback, ranking and rating systems are ultimately used as tools to assess a worker's performance (Rosenblat and Stark, 2016). At the same time, practices of control akin to those reported in the 'electronic sweatshop' of call centres studied by Fleming and Sturdy (2011) can also be witnessed, whereby workers are subject to forms of forms of control that leverage on

'gamified' practices aimed at fostering the achievement of 'personal bests' to stimulate - and reward - a worker's productive disposition (e.g. Lehdonvirta, 2018).

For what concerns the first aspect, we need to turn our attention once again to feedback, ranking and rating systems and their role on 'gig economy' platforms. While in the previous section we have observed how these systems come to be part of the labour process via the notion of emotional labour, looking at the labouring of relations that workers are required to undertake to feed the platform metrics, here we focus on how the metrics resulting from these systems come to be relevant for the platform in its role of 'shadow employer'. In labour process research, Fuller and Smith (1991) argued that in the growth of an economy of services, control shifts from being direct to unobtrusive and often gets exerted via consumer-led practices described as 'management by customers' (1991: 3), by means of customer feedback and the monitoring of interaction between customers and workers by managers. The 'gig economy' appears to sit in continuation with this tradition, particularly those platforms whereby direct systems for the production of feedback, rankings and ratings of work and workers by customers/clients are present. Here, the metrics that result from the feedback and reviews that consumers/clients produce after a 'gig' has been executed are used as performance indicators. On Uber for instance, Rosenblat and Stark (2016), who refer explicitly to Fuller and Smith (1991), argue that: "*In the driver rating system offered to riders, passengers are empowered to act as middle managers over drivers, whose ratings directly impact their employment eligibility*" (2016: 3772). This has direct consequences on employability; it is widely believed that drivers with a reputation score below a certain threshold are deactivated from the app and prevented to work - essentially, they are 'fired' (Rosenblat et al., 2017). Hence, these metrics come to be internalised by workers to the point that their mere existence exerts a form of indirect control upon them.

Rosenblat (2016) explains in greater detail how the aggregate reputation score acquired by a driver becomes a form of performance evaluation:

> Uber's rating system serves to automate and alert the company to drivers who are under-performing. After every ride, passengers are prompted to rate drivers on a 1-to 5-star scale. This feedback generates instantaneous and recurrent performance evaluations that allow Uber to track worker performance and intervene with poor performers. In order to remain active on the system, drivers must meet an average rating target that hovers around 4.6 out of 5 stars. (Rosenblat, 2016: np)

This is not a unique feature of Uber. As seen in the previous section, online freelancers explicitly describe their reputational metrics as the only aspect that matters to their hiring (Gandini, 2016). Thus, the execution of quality work by online freelancers is indirectly 'ensured' by the presence of ratings, insofar as the visibility of the good received feedback from previous clients is propedeutic to the commissioning of new work by the same clients and by others (Alacovska, 2018). Again, similar dynamics also exist on platforms where no rating system is formally in place, with other metrics becoming monitoring tools. On Deliveroo, for instance, couriers receive "*personalised monthly 'service level assessments' on their average 'time to accept orders', 'travel time to restaurant', 'travel time to customer', 'time at customer', 'late orders' and 'unassigned orders'*"(O'Connor, 2017: np). This means that the platform "*compares each courier's performance to its own estimate of how fast they should have been*" (O'Connor, 2017: np) and acts accordingly if workers are not sufficiently productive.

Alongside practices of 'management by customers', many platforms also exert forms of control that leverage on a worker's engagement and attention at work, using techniques of 'gamification' to stimulate extended productivity. Lehdonvirta (2018), for instance, shows that the management of work in the absence of formal constraints induces freelancers on Upwork into striving to score 'personal bests' at their metrics on the platform. Similarly, an article appeared on the *New York Times* (Scheiber, 2017) evidences how Uber uses game-based 'psychological tricks' to make sure their drivers drive more and for longer hours, thus discouraging disconnection from the app and incentivising the achievement of 'personal bests' for daily earnings or distances. This pairs up with forms of gamification based on specific features of each platform, such as Uber's 'surge pricing', a mechanism that incentivises drivers to move to areas where demand is high and therefore rates for a ride are higher. Instruments like Uber's 'surge pricing' are described by Rosenblat and Stark (2016) as "*fundamental to its ability to structure control over its workers*" (Rosenblat and Stark, 2016: 3758) insofar as these determine what they describe as 'power asymmetries' which enable forms of 'soft control' (Rosenblat and Stark, 2016: 3768) on one's performance and motivations.

Based on the evidence here displayed, it may be argued that 'gig economy' platforms are exemplary of nuanced and innovative forms of technologically-centred, normatively-driven practices of control upon workers and their work. These seem to present features that variously combine forms of control that are already familiar to labour process research, especially in the context of the service economy (such as in call centre or retail work). However, these are also unique in that they principle on metrics the production of which is embedded in the functioning of the platform and cannot be escaped by workers, since the 'feeding' of these metrics affects their income and continuity of employment. Again the idea

of a 'continuum' in the way we see 'gig work' seems to be useful here. On the one hand, on platforms such as Upwork we can witness a digital-based, technologically-driven version of what Morris et al. (2016) describe as the 'indeterminacy of temporariness' in creative work, insofar as forms of control at a distance that are are typical of traditional freelance work - whereby word-of-mouth and reputation remain key to professional success - are repurposed on a digital platform. On the other hand, platforms such as Uber or Deliveroo fully exploit the possibility to minutely monitor the activity of a worker in real time, from the very moment a worker logs into the platform to when s/he disconnects. This renders an 'always-on' form of control that requires dedicated attention, and further empirical research.

Conclusion

This article has demonstrated that labour process theory represents an important resource for the study of the workplace in its digital evolution. The discussion of the notions of 'point of production', emotional labour and control in the context of the 'gig economy' has evidenced that platforms represent a digital-based 'point of production' whereby feedback, ranking and rating systems play a peculiar role in the labour process. This suggests labour process theory has the potential to take a more centre-stage position in the critique to the emergent phenomenon of work(ing) through (and for) a digital platform. Arguably, the aspects here discussed here are in fact only some among many that could have been taken as entry points for the study of 'gig work' using the labour process approach. More can (and should) be said, for instance, on the way (and the extent to which) digital work platforms 'repurpose' notions of skills, autonomy, consent and resistance at work, which are equally important topics in the labour process tradition, and nevertheless have not made part of this inquiry. In other words, this analysis brings more questions than conclusions to the table, as it opens up a broad set of issues for future research to intervene.

Two aspects in particular seem to be worth underlining. A first one concerns the role of

platforms in creating, and shaping, relations of production. The absence of a fixed managerial

structure emerges here to be only apparent; digital 'gig work' platforms seem to be designed

as organizational models that 'invisibilise' the managerial figure - which remains hidden and

inaccessible for workers as it sits behind the screen of a digital device and a set of anonymous

notifications - and prevent workers to socialise with each other, thus reducing the potential

for resistance and unionization (although this has happened, see for instance Woodcock,

2016; Tassinari and Maccarrone, 2017). Future research needs to critically address the 'gig

economy' not as 'just another' nonstandard mode of employment, but as a potentially

scalable organizational model that exploits the features of a digital infrastructure to further a

'radical responsibilization of the workforce' on an individual level (Fleming, 2017; Neff,

2012), thus taking seriously the warnings of an incoming 'uberization' of *all* work (Fleming,

2017).

A second aspect concerns the way we conceive of digital workers, and particularly of 'gig

workers', in the Marxist scholarship. The discussion on digital-based and digitally-mediated

forms of work has in fact been largely dominated by the critique to a very specific form of

'digital labour', that by users of social media platforms such as Facebook (see Beverungen et

al., 2015), and by an emphasis on the exploitative practices of 'free' and 'invisible' labour

these elicit (Fuchs, 2014). As a result, the emergence of examples of 'real' work - such as the

'gig economy' - has so far been largely overlooked especially by disciplines such as the

sociology of work, organization studies and critical management, that until recently have

broadly considered these a 'media studies' matter. This article, on the contrary, suggests the

necessity for these disciplines to acknowledge that workers who work through (and for) a

digital platform, such as 'gig workers', are not merely 'users' of a platform but actually paid labourers, and to engage in research that investigates their conditions and practices accordingly. In this sense, I share here Tweedie's (2013: 102) emphasis on the necessity for contemporary work research to focus its attention on "*how changing management practices, working relationships and technologies affect people's capacity to cope with the demands of their work tasks*", an issue which seems to be of great importance especially in the context of a debate where ideas of an 'end of work' by means of large-scale digital automation are being seen as a prospect for society (Srnicek and Williams, 2015). Also, it seems important to reiterate Tweedie's (2013) warning not to overstate the relevance of employment regimes in this picture. Albeit of capital importance that 'gig workers' are fully recognized as 'workers' and provided with decent social security, we need to expand our interest onto these workers' experiences (see also Tweedie and Holley, 2016; Moisander et al., 2017) as well as on the social and cultural implications deriving from working in a context where relations of production are fluid and social relations at work are heavily transactionalized. Thanks to its unique positioning at the front line of labour research, labour process theory is well equipped to bring a significant contribution to this debate, and establish as a prominent, critical Marxist voice on digital platform work.

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Notes

[1] However, online freelancers often try to establish a work relationship with clients outside of the platform to avoid paying the intermediation fee. See for instance Alacovska (2018: 13).

[2] Originally this was a hourly rate scheme, see Woodcock (2016).

[3] On Elance, one of the antecedents of Upwork, this consisted into an actual number ranging from 1 to 20, see Gandini et al., 2016.

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