
Platform Labour: Algorithms Versus Business Ethics

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Abstract

We reflect on algorithm-driven platforms, drawing on our prior work on the new work practices that these algorithms enable. We present these reflections on motivations and experiences of using peer-to-peer exchange and on-demand service platforms with the aim of sparking discussion of some of the thornier issues that have emerged in the course of our work. For the purposes of this workshop in particular, we ask whether the current focus on ethical algorithms obfuscates more controversial matters of business ethics and values.

Author Keywords

Uber; ridesharing; on-demand services; platform economy

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Introduction

Critique of on-demand platform services has often focused on the impact of algorithms and data-driven management upon working conditions. Some have mapped features of the Uber ridesharing app's algorithms directly to human managerial activities: Uber's automated ride allocation, surge price alerts, driver evaluation using ride acceptance rates and passenger star-rating reviews are equated with human management decision making, information and evaluation, (Lee et al. 2015). We draw on our recent interview study with users of Uber, a service which mediates and structures on-demand service provision through a networked platform, (McGregor, Brown, and Glöss 2015). By focusing on the motivations and experiences of participants, our analysis sheds

light on how services within the sharing economy impact the lives of those involved, and enables new work practices – in the context of the existing work practices which are changed. We interviewed traditional taxi drivers, Uber drivers and Uber passengers in both San Francisco and London. Building on this prior study, along with further research on the sharing economy, (Lampinen et al. 2015), (Lampinen et al. 2013), we explore some of the thornier issues that have emerged in the course of our work.

Automation of taxi allocation

Platforms use algorithms to facilitate automated allocation on-demand services. Today's algorithms allow allocation of piece-work, taxi rides, ratings of work, as well as distributed management of employee relations – at increasing scale and efficiency. In the case of taxi allocation, an algorithm allocates a passenger request for a ride to the nearest available car, the driver of which is notified and obliged to accept or ignore the prospective ride within a very short timeframe. Each driver's 'acceptance rate' of these new rides is monitored and penalized if it falls too low. This allocation process represents the culmination of progressive automation of taxi dispatch. Previously it was the subject of work by George Psathas, looking at how both radio despatcher and drivers developed systematic abbreviations of the various distinguishing characteristics of ride requests (Psathas and Henslin 1967), including location, a description of the passenger, their name and so on, to allow driver to quickly find new fares. While the Uber algorithm has its history in traditional taxi allocation, its automation means that the supply of taxi services is allocated to customer demand more efficiently than before. This improved automation is mediated via an app on the mobile phone of both the driver and the passenger, deploying geo location and automated payment technology. The app requires less effort of the passenger, yet for the driver the opportunity for 'workarounds' through human interactions is removed, and this algorithm-based automation also structurally changes features of the job.

LOWERED BARRIER TO ENTRY

A prospective Uber driver need only be appropriately licensed to drive, and have access to a vehicle, which Uber considers suitable. This contrasts with incumbent taxi drivers who are required to comply with local regulatory systems devised to control the overall supply of taxis—for example, the medallion system in the

US, or 'The Knowledge' examination in London, UK. Both of these regulatory schemes were originally introduced to moderate the overall number of taxis operating, in order to help ensure a decent income for drivers. However, both have had the effect of making it difficult to become a taxi driver, requiring significant financial and time commitment, as well as limiting the supply of cabs in periods of high customer demand.

FLEXIBILITY OF WORKING HOURS

Since Uber drivers are independent contractors, driving work is available when it suits each individual driver to log into the app. Many of the drivers we interviewed were using the Uber app to supplement their income, unlike the traditional drivers we interviewed who drove as a full time job:

"I'm a paramedic, so we have weird schedules. When I was looking for a part time job, it was difficult finding something that would fit with my schedule. This was very flexible and can work whenever I want on the days off. If I don't want to work, I don't have to, so it's great." (Male SF Uber driver)

Drivers develop workarounds to try 'play' the Uber app to manage when and what rides get allocated to their car within the system – and these are discussed anecdotally and shared online via driver forums because the company does not provide details about how their allocation system – or the algorithms used to implement it – works (Lee et al. 2015). From our own interviews we are sceptical that there is much 'play' that drivers can exploit (in contrast to human mediated allocation that Psathas and Henslin document).

When logged into the systems, every Uber driver's acceptance rate is monitored. Drivers get penalized if they refuse too many rides while they are logged in on the app. In this way, much of the Uber driver's choice and control about which passengers they pick up is dissipated. In contrast, traditional taxi drivers on the other hand acknowledged that they try to vet every passenger before they get in the cab: *"Yeah, you have an interview at the door, do don't just get in. I always speak to ya before you get in"* (Male London Black Cab Driver) Given that traditional cabs pick up fares, without reliable ways of knowing if the next passenger will even pay at the end of the ride, this is perhaps not unreasonable – taxi driving has historically been known to be dangerous work

(Maguire and Murphy 2014),(Sharma 2014) This brings us to another change in work practice that is facilitated by the use of software algorithms: the Uber 'star ratings' review provided at the end of every journey by both passenger and driver.

PERFORMANCE EVALUATION – THE IMPORTANCE OF REPUTATION
For Uber drivers, maintaining a high rating at the end of each ride (combined with consistently high acceptance rate of rides) has become a major aspect of their work, superseding meeting the needs of local license regulations, or the traditional navigation skills of taxi driving. Drivers are now subject to the Uber 'star rating' that passengers use to rate their ride – with low ratings leading to their exclusion from the app. The need to keep one's car in top condition, and ensure that passengers are happy in order to maintain high star ratings, could be considered 'emotional labour', (Hochschild 2003). This acts as a form of surveillance and performance rating on drivers, forcing them to attend to passengers, and causing considerable anguish when their rating falls: "...we really work hard to have those stars." More than this, minority drivers may be additionally burdened to overcome discriminatory preconceptions involving identity work in order to conform with passenger expectations. Thus, online reputation plays a critical role in this platform, as a requirement for ongoing participation and the driver may feel rather dependent on the customer's arbitrary rating.

"Sometimes I just think the people, they either don't pay attention to the ratings are, some people are on it, some people definitely recognise that it holds stature – but some people I think are just kind of willy nilly with it." (Female SF Driver)

All of this said the rating system has increased the drivers' sense of control and security when it comes to the passengers they pick up – along with an assurance of getting paid. Because customers are registered and rated, the Uber algorithm creates a stronger perceived connectedness between driver and customer:
"It's a huge, huge difference in the technology that's applied to Uber versus taxis... all of the things that are involved with the car and Uber to really make it solidly safe. What I mean by that is that we know who's getting into the car when they are getting in, everything's connected to their credit card, we don't carry cash, if anything were to happen to us the vehicle has a tracker... I

wouldn't recommend being a woman taxi driver because anything could happen." (Female SF Uber driver)

Changes in passenger experience

The passengers we interviewed spoke extensively about the social aspects of the journey experience. In this, the perceived insociability of the traditional taxi driver was to be taken for granted: *"I feel like cabdrivers are just very like cabdrivers, like they're focused on just driving the car."* However, there were much higher expectations with Uber drivers – small talk seems to be an expected part of the Uber journey. The passenger could decide whether to engage with the social interaction, but passengers had extra rights to be critical of drivers' conversations. Indeed, earlier work on the sharing economy has talked about the problems stemming from homophily in the sharing economy, in that often similar 'types' of people pair up in using these services (in terms of class, education and race) (Ikkala and Lampinen 2015). From our Uber passengers' point of view, this was presented less problematically as, "Uber drivers are like me": *"They're more like people I would, just seem probably even people that I work with, that I know. My friend drives for Lyft, although he doesn't want anyone to know he's actually doing it."* (SF Uber Passenger)

This issue of homophily as it plays out on peer-to-peer platforms such as Uber for ridesharing, Airbnb for accommodation and Taskrabbit for small jobs, is one which may contribute indirectly to the displacement of workers who historically were able to enter the workplace via low paid, low skilled labour.(Schor 2015).

Opaque algorithms and business ethics

Among other issues, Uber has been criticised for profiting by invoking its surge charge during times of high demand caused by natural disasters and terror acts, (Mazza 2015). This gives rise to a discussion of whether what we are witnessing is a matter of ethical algorithms or, rather, business ethics. Platforms based upon algorithms reflect the influence of economic interests (both individual and corporate), service and interaction design, and forces of collaborative consumption – with the different characteristics of each platform being defined by the combination of these interests. For example, Uber drivers are powerless to

control the rate charged to the passenger, while an Airbnb host is able to set the price for their lodging – this asymmetry of control for the providers on both platforms is determined by the business models of the two companies. There is a risk of mistakenly charging algorithms that manage on-demand supply with agency they do not possess. The decisions regarding Uber surge pricing are, at their root, based on business choices, although their manifestation to drivers and passengers comes off as algorithmic. Surge pricing is used by Uber to both encourage drivers to attend to areas with high demand—and importantly the surge also helps to moderate the demand for rides as passengers choose not to accept the additional cost. Indeed, research suggests surge pricing has more impact on suppressing demand, (Chen, Mislove, and Wilson 2015). Surge pricing often passes very quickly, and passengers can log in again within minutes to find the surge price no longer in effect. However, the workings of the surge charge are opaque and neither consistent or predictable. This is problematic for both drivers and passengers, although arguably more consequential to the drivers who rely on Uber for earnings, and who are unable to forecast their income accurately.

In discussion, drivers expressed a lack of clarity about the role of the company and some drivers were frustrated with the lack of human contact after initial registration with the app. The more experienced Uber drivers interviewed, who joined the platform during its launch in 2009, described their recent diminished earnings. They blamed this fall in income not on the algorithm, but on the company that was seen to push running costs down to the drivers, and also upon Uber's policy of aggressive rate cutting to fend off rideshare competitors like Lyft and Sidecar. Even though the company defines the relationship with its drivers as a 'partnership', drivers suspect they carry the risks alone: *"Of course they make a lot of money with me, and they don't spend nothing... They don't spend the gas, they don't spend the maintenance for the car, they don't do nothing. How do you think they're worth \$15 billion? Do you think they make it from the customer? No... They make it from the drivers."* (Male SF Uber driver)

By attributing agency to the algorithm, there is a danger of obfuscating the role of profits in creating the platform or system of automation. Some have raised concerns that the technology itself is changing how people work, *"the trend in new technology that*

sacrifices individual control for the sake of overall system efficiency, and its implications for learning and development on the job", (Lee et al. 2015). However, the business objective of Uber is profit. Indeed, much of the discussion around Uber we would argue is not really about algorithms as such, but about the ethics of particular business practices. For example, many commentators find surge pricing unethical, but it is essentially an engineered version of the usual market reaction to scarcity, where an increase in prices leads to an increase in profitability, greater supply and an eventual drop of prices.

Similar arguments have taken place around Airbnb – where there has been a concern that locals have been evicted to rent apartments to visitors. Since the visitors pay more, in some senses they are 'valuing' the accommodation more than locals. Yet this is to ignore the broader issues of gentrification and inequality.

There is also the difficult issue that both Uber and AirBnB have often skirted around business legislation and acted in a grey zone to innovate in apartment and car rental. This might be seen as deeply reprehensible, but it is difficult to see how innovation could have happened otherwise – and in situations of regulatory "capture", regulation is not neutral but has actually been manipulated to protect the interests of incumbents.

Discussion

As can be seen the algorithms that underlie Uber present a number of challenges and changes to an established business practices. Yet we are sceptical of a move to quickly to see this as a question of ethical algorithms as such, (Greenfield 2015). To us it seems that this is perhaps better framed as a set of questions around business ethics and the decisions that companies and their management make. Decisions about surge pricing, for example, are essentially ones made by the individuals running these companies, and not by the algorithms themselves. Indeed, as Anderson and Sharrock argue, a focus on the autonomy of the algorithm might actually distract us from the proper analysis of a workplace situation that perhaps isn't as new as it might seem, (Anderson and Shamrock 2013).

In conclusion, we would argue that a better issue to focus on is who wins and loses in the changed situations – and how can we regulate changing markets and situations to be more equitable. In the case of Uber, it is important to acknowledge that drivers earn more than conventional drivers (although it varies from market to market), specifically because less revenue is extracted by the medallion holders, and drivers spend longer actually driving passengers around. It seems to us that evaluation of Uber should actually take seriously what the drivers say and feel about their employment, rather than rallying against a changed market situation through critique of the company's ideology. In thinking about algorithms it is important to look at who wins and loses, rather than getting lost in ontological or ideological questions.

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