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Taxis for neoliberalism!? Surveillance and resistance in post-industrial Philadelphia

Abstract

As a consequence of neoliberalism, employment has become increasingly precarious and informal, sitting outside of traditional organizational contexts. There is a need to better understand how these structures emerge and, importantly, how workers can also adapt to challenge these shifts. This article is a study of a labour dispute between Philadelphia taxicab drivers and the governmental regulatory body. The dispute was centered around the implementation of surveillance technologies to regulate and control the industry and the drivers' working practices which they considered to be de-professionalizing and an infringement of their liberty. The drivers resisted through traditional organizing, legal challenges, and creating unconventional alliances. We argue that this labour dispute should be seen in the wider context of how a neoliberal political economy emerges and is maintained – in this case not by capital, but by the state. The article is a longitudinal case-study covering the period from 2004 to 2011. As such, it is a prologue to later technologically driven transformations in the taxicab industry (such as ride-hailing apps) that have further exacerbated precarity among the workforce.

Keywords: neoliberalism; surveillance, taxicab; post-industrial; post-Fordist; labour organization.

Introduction

Taxis are often the first point of contact when entering a city, at the airport or the train station. Taxis are therefore an important mobile gateway to cities. They are also an important form of urban transport in their own right. As such they are sites of contestation, ideologically defined, and appropriated as a terrain within which power struggles play out. In this article we explore how a struggle over the regulation and surveillance of taxicabs is emblematic of the ways in which neoliberalism shapes and embeds urban environments, organizations, work and social relationships.

This article examines a labour dispute that begins with the introduction of Global Positioning Systems (GPS) in every taxicab in the city of Philadelphia. We use this to explore how technology and regulation were used to establish surveillance systems that were designed to condition and control work. These systems replace formal systems of (micro) management and so become a form of management by technology. In this case the GPS systems were intended to surveil the drivers, as they interacted with the city. This led to a dispute between the drivers (as represented by the Taxi Workers Alliance of Pennsylvania) and the regulatory body (the Philadelphia Parking Authority) which began with the takeover of regulatory responsibilities by the PPA. As we will discuss, the formation of the Taxi Workers Alliance highlights the complex nature of collective action in the post-industrial context.

Weaver (2016: 3) argues that, in Philadelphia, ‘neoliberal ideas interacted with the slow-moving processes of deindustrialization, racial change and the logic of coalition building’. As such, the events of this case study are embedded within a broader process of revitalization (a process certainly still ongoing) through neoliberalism within the city of Philadelphia which has exacerbated inequality as the city has transitioned into a ‘bifurcated corporate region’ (Weaver, 2016: 197). The city of Philadelphia itself, in the case study presented here, becomes the spatial mechanism through which technology is given agency over the taxicab drivers as a method of regulating and controlling a disparate workforce.

All surveillance systems are located in a particular economic, cultural, political, and historical context (Lyon, 1994). In this article we establish this by examining how the system of surveillance was enacted within the context of 'urban renewal' and urban degradation, and how it was justified by recourse to discourses of rationality, safety, and market regulation. Lorey (2015) explains how fear and insecurity, in a neoliberal system, are constructed as a mechanism of control where domination is enacted by promises of protection through calculability and regulation. However, in doing so, there must be a discursive construction of those to be protected and those to be protected from. Here, taxi-drivers felt harassed by the loss of privacy and independence, and that the regulation and GPS undermined notions of professionalism by placing a technological 'authority' ahead of human experience and accumulated knowledge. We explore how this was endured and resisted–albeit unsuccessfully. As Brenner and Theodore (2002: 368) argue, 'the overarching goal of such neoliberal urban policy experiments is to mobilize the city space as

an arena both for market-oriented economic growth and for elite consumption practices'. Here we relate the use of surveillance technology and the dispute to the conscious attempt to 'Disneyfy' (Bryman, 2004) Philadelphia as a means of transforming the city for the purposes of consumption and elite convenience.

There are two interrelated central arguments developed here. First, neoliberalism as policy results in both the justification of using technological means of micro-managing regulation, and the increased precarity of labour which significantly complicates efforts to challenge the regulation. Neoliberalism confines the freedom of the worker in both ways. Second, neoliberalism as a discourse legitimates increased inequality through the degradation and de-professionalisation of labour, and the othering of precarious workers is then used to exacerbate social divisions with the consumer whose interests and body are to be protected. In both arguments, precarity is an aspect of neoliberal governing (Lorey, 2015). This case study is temporally located after the emergence of urban neoliberalism as documented by Weaver (2016) but before the explosion of the role of technology in the 'gig' economy as evidenced by ride-sharing mobile phone applications such as Uber and Lyft. The dispute over worker rights, regulation and technology documented here prefigure and provide context to later disputes within the taxicab industry and other industries impacted by an increasing shift towards casualisation. Streeck (2017: lix) argues for the importance of analysing processes as everything is 'always moving along a path'. Therefore, we can only understand today if 'we know how it looked yesterday and where it might be heading' (Streeck, 2017: lix). This particular case study provides a vivid illustration of the implementation of regulation via

technology and the difficulties of resistance within the context of precarity and ambiguous power structures. A case study and documentary analysis approach enables an analysis which encompasses both an appreciation of the lived personal experience of these abstract processes as well as an analysis of the discursive justifications by the various stakeholders.

The article is structured as follows. First, we provide a background discussion defining neoliberalism and precarity and consider organized resistance within this context. Second, we briefly discuss the methods and sources used here. We then contextualise the case with reference to urban renewal and post-industrial degradation in Philadelphia. The following sections lay out the narrative of the case study, examining the regulation, resistance and limited success that followed. There is then a discussion and conclusion.

Neoliberalism, precarious labour and resistance

Hanlon defines the key elements of neoliberalism as being threefold: to intervene to create the basic conditions under which the market can 'spontaneously' operate; the prioritization of competition in economic relationships; and the necessity of elite leadership (Hanlon, 2016: 186). These three elements are important. The mythos of 'free' markets belies that they are socially constructed institutions that are highly sensitive to regulatory and legal variations (Tataryn, 2016)–and that the regulatory regime itself embeds market behaviour (Brenner and Theodore, 2002). Notions of competition are used to rhetorically justify that consumers needs *must* be met and is at the same time the mechanism of

achieving efficiency within the market (Harvey, 2005). And, competition requires both experts and authorities to provide regulation (Davies, 2016), which elites provide via political mechanisms through which institutions are ideologically disciplined. Neoliberalism should, then, be conceived of as a 'logic' and 'technology of governing' whose central problem is to 'administer people for self-mastery' in the pursuit of profit (Ong, 2007: 3-4). Despite the rhetoric to the contrary from elites, neoliberalism does not advance equality but, rather, reinscribes, intensifies and creates injustices and inequality (Bradley and Luxton, 2010).

Neoliberalism has led to substantial changes in economy and society that have been 'driven by the transformation of production processes, the rights connected with them and, above all, the deliberate governance strategies of capitalism' (Bove et al., 2017: 5). As a consequence, employment has become more temporary and ephemeral. Work is increasingly located outside of the organizational contexts that had–in a prior era–located industrial relations in relatively stable and settled patterns. There has been a systematic and intended reduction in labour power as the modes of production have turned away from Fordism, and economic policy away from Keynsianism (Neilson and Rossiter, 2008).

Precarity–a now well-established concept (Bove et al., 2017)–is the deliberate repositioning and conditioning of the worker in relationship to the market as a consequence of neoliberalism. It can be theorized in various ways, but of relevance here are both the decline of traditional labour unions and 'the

emergence of new forms of political struggle and solidarity that reach beyond the traditional organizational models' (Bove et al., 2017: 5). This is also a central problematizing idea, as we explore resistance to the deracinatory effects of increased precarity. Yet these transformations have created a paradoxical situation where the traditional modes of organizational control over labour have–at least in part–been lost: and so, if a worker sits outside an organization they cannot be controlled as they once were *within* an organization. However, as we argue here, this seeming paradox is resolved as the mechanisms of social control have adapted to the post-Fordist organizational condition, while reproducing the essential elements.

In this case, this is achieved via two interrelated mechanisms: technological and spatial. The first is the use of what McCormack and Salmenniemi (2016: 7) refer to as 'technologies of subjugation that entail political strategies to regulate populations for optimal productivity' that in turn create 'spatio-temporal configurations where some populations are subjected to unjust regulations and confinement, while others circulate with ease, where some knowledge flows freely ... yet other epistemologies are constrained or rendered invisible'.

Such depictions of neoliberalism and precarity suggest a severe limiting of options for opposition, particularly for the increasingly precarious worker. However, Lambert argues that neoliberalism obscures strategic choices that are available and there is a need to examine where spaces of social agency can be found and how they can be effectively used (Lambert, 2013). As such, he argues that unions accommodate neoliberalism and therefore need to be reminded that markets are social and ideological constructs. While campaigns such as that of

the Justice for Janitors has an almost 'mythic status' as a successful example of bottom-up organising, it is less clear if such a method of organising can be extended as a template more broadly particularly as it remained embedded within a large multi-national union and is complicated by internal power dynamics and issues of scale (Savage, 2006: 645; Aguiar and Ryan, 2009). However, Aguiar and Ryan (2009) argue that the model has potential because it is open to interpretation and flexible despite challenges and contradictions. Blyton and Jenkins (2013), in their comparison of oppositions efforts in two similar factory closures assert that effective mobilization is possible but, to be sustained, the opposition must have broad social support within the local community. However, as seen in the case study discussed below, garnering this broader support can be difficult when workers must contend with a sustained campaign of negative portrayals. Additionally, as described above, precarious labour complicates union participation when workers are classed as independent contractors. As this is commonly the case within the taxi industry, one common alternative is workers cooperatives. While this structure is very different from the one presented in this case study, Darr's (1999) work on taxi cooperatives in Israel highlighted similar sources of conflict amongst drivers as was found amongst the drivers in Philadelphia further underscoring the difficulties of cooperation within such a heterogeneous workforce. While organising precarious workers presents different challenges from more traditional forms of organising, Herod and Lambert (2016: 24) argue that workers and academics 'should not succumb to the neoliberal fallacy that there is no alternative but to accept their condition'.

Methods and sources

This article is based on a longitudinal/historical case study (Eisenhardt, 1989; Eisenhardt and Graebner 2007; Rowlinson, Hassard, and Decker 2014). The data presented is used to illuminate the conceptual and thematic aspects of the case. The data that has been gathered is 'found evidence' (Fischer, 1995) purposefully constructed from multiple documentary sources, and interviews, to provide the facts from which a narrative has been constructed. According to the norms of both historical research (Marwick, 1970; Jordanova, 2006) and qualitative research using documents (Bowen, 2009), the texts used are evaluated with reference to their authorial intent and biases (i.e., source criticism). The documentary evidence comes primarily from press reportage, and government and court documents. Background data has come through contemporaneous interviews and discussions with TWA organizers, in particular with Ronald Blount, President of the Taxi Workers Alliance of Pennsylvania. Meetings were held with Blount and Tekle Gebremdhin (a TWA-PA organizer and driver) in December 2006, with Blount, Gebremdhin and Steve Chervenka (also a TWA-PA organizer and driver) in July 2007 and with Blount in January 2008. Data taken from the interviews has been triangulated with publicly available court and government documents. In our treatment of the evidence we have avoided personalizing the debate about the TWA through the use of direct quotes from the drivers. Instead we have focused upon the processes entangled within the dispute between drivers and the PPA. Aware of the critique that there is 'any such thing as historical truth or objectivity' (Evans, 2001: 3) we have nonetheless tried to keep to Jordanova's injunction to maintain 'the highest

levels of accuracy' while noting 'the provisional nature of [historical] knowledge' (Jordanova, 2006: 89). Thus, we make an 'attempt to re-create the past on the basis of imperfect and fragmentary evidence' (Marwick 1970: 131), while at the same time acknowledging our narration and interpretation as authors.

The article covers the period 2004 to 2011. As with any historically situated study there are authorial choices made in regard of when to begin and stop the narrative. Some periodological choices are defined by epochs, while other periods map to the individual or organizational evidence that is available, in so doing helping to 'organize our thoughts' about the subject under research (Jordanvoa, 2006: 107). In this case the dates selected reflect events that book-end the story that we explore here. In 2004 the regulation of taxicabs was moved from the Pennsylvania Utility Commission to the Philadelphia Parking Authority, who began to pursue a stronger regulatory role. In turn this led to the formation of the TWA in 2005. Following disputes that led to the courts striking down the powers of the PPA that in turn led to a 'regulatory void' (see below), this ended in 2011 with legal ruling that re-established legitimate authority to regulate the tax-cab industry, as well as the recognition of the TWA by the AFL-CIO. Thus, the period in between can be seen as a distinct period within which the struggle between the PPA and the TWA played out to a narrative conclusion.

Philadelphia, post-industrial city

Once a prominent industrial centre, Philadelphia suffered during the transition to a post-industrial modern city. A sharp decline in manufacturing jobs and

population in the second half of the 20th century was accompanied with an increase in crime and a reputation for corrupt governance (Simon and Alnutt, 2007). The perception of Philadelphia as crumbling, corrupt and plagued by violence and racial tensions held back revitalization efforts for decades. Projects to revive Center City Philadelphia began in the 1980s but did not take off until the 1990s when Mayor Ed Rendell (who, afterwards became Governor of the State of Pennsylvania from 2003-2011) began to aggressively tackle the city's problems (Simon and Alnutt, 2007). From the onset of his administration, Rendell 'envisioned a broad reshaping of the city's economy to reap benefits from tourism' as a way to 'counter the continuing decline in industrial employment' (Simon and Alnutt, 2007: 412-413). Sanitizing the tourist and service economies of Philadelphia by making them literally cleaner and more orderly and efficient became a central component of the urban renewal project. The Center City District, established in 1990 (Center City, n.d.), is considered to be one of the most successful Business Improvement Districts in the USA (Simon and Alnutt, 2007). The emphasis on cleanliness is made explicit in a Center City District report that includes a survey on 'Perceptions of Cleanliness' with an emphasis on cleaning sidewalks and removing graffiti (Center City, 2007). Rendell's successor as mayor of Philadelphia—John Street—, continued and expanded many of these programmes and, in addition, initiated a number of technology-based programmes which were largely unsuccessful including an attempt in 2004 to make Philadelphia the first wireless city (Tedeschi, 2004) and the installation of surveillance cameras which were hindered by a lack of bandwidth and a weak signal (Kase, 2010). The urban renewal process in Philadelphia followed a similar pattern to that described by Roy Coleman (2003:

26) where the city assumes a theme park character while 'initiatives around social control [play] their part in attempting to homogenize the perceptions, uses and experiences of city centre space'. It is as a component of this process that changes were brought about in the regulation of the taxicab industry.

Regulation

Before 2005, the Pennsylvania Public Utility Commission regulated the taxicab industry in Philadelphia, despite its primary role of regulating Pennsylvania's electricity and gas companies. A handful of employees monitored an industry of 1600 taxicabs and 5000 drivers (Ney, 2009). While the regulator's function was to ensure that the drivers, dispatchers and owners worked together effectively, the PUC, seen as ineffective and corrupt, rarely intervened in disputes and, thus, drivers went fourteen years without a fare increase (Parker, 2005).

In 2004, Ed Rendell—by this point governor of the state of Pennsylvania—transferred the regulation of the taxicab industry to the Philadelphia Parking Authority (PPA) who introduced an expansive programme to clean up the industry the following year. They raised fares but they also dramatically increased fees and fines for violations and employed a team of inspectors who patrolled the city. Drivers complained of harassment and intimidation by the inspectors. Racial tensions increased as drivers were predominantly minorities and inspectors predominantly white males. Drivers could be fined between $100 and $350 (depending on whether or not it was a 1st, 2nd or 3rd offence) for dirty vehicles, unmatching hubcaps, talking on their mobile or not wearing a collared

shirt (Philadelphia Parking Authority, 2011b). Along with increased physical monitoring, the PPA introduced a 'Technology Enhancement Project' which included installing credit card machines and Global Positioning Systems (GPS) in all cabs. With the credit card transactions and the GPS, the PPA was able to gather a large amount of data including every fare, how much every driver made, how many hours they worked, as well as the location, direction, speed and status of every vehicle - even when they were not working. The system also enabled the PPA to remotely lock and unlock doors and prevent the ignition to disable vehicles with outstanding fees and/or fines (Taxitronic Inc., n.d.).

These changes were introduced with no public debate or input from the drivers (see Blount v. Philadelphia Parking Authority, 2007). It appeared that, in effect, a government regulatory body had quietly taken over a private industry. The PPA profited through fines, fees and credit card surcharges. It was able to control the vehicles and the manner in which they were dispatched but without any of the risks or costs associated with the industry which remained with the owners (who bought and maintained vehicles and medallions) and the drivers. Drivers assumed the majority of the financial risks and because they were classified as independent contractors rather than employees of either the firm owners or the regulator, they received none of the standard benefits nor stability of formal employee status. The vast majority did not have healthcare (Taxi Workers Alliance, 2008). Drivers paid lease fees to the owners which were flat rates rather than a percentage of earnings (Thompson, 2008). In addition, they paid the PPA a service fee for the GPS system, paid for the supplies of the credit card machine and paid a surcharge to the PPA for the processing of credit card

payments (Ney, 2009). Drivers began shifts already significantly in debt with no guarantee of earnings. The taxicab industry in Philadelphia quickly shifted from one that was loosely regulated to becoming one of the most strictly regulated industries in the city.

Resistance

Critical of the increased range and cost of fines and the heavy-handed tactics of the inspectors, the drivers were particularly upset by the introduction of GPS and the tracking of drivers.

> As a driver when I come out in the morning and get my cup of coffee they follow me… In the afternoon, if I want to go to an AA (Alcoholics Anonymous) meeting or something they follow me and, in the evening, if I want to go to the mosque and pray they follow me. So, what happens is that I stop going to the mosque, I stop going to the AA meetings because I do not want them into my personal business and we think that effects the driver's personal lifestyle (Blount quoted in Inskeep, 2006).

Beyond the issues of privacy, drivers felt de-professionalized by a system that seemingly superseded their tacit knowledge of the city. They were fined $350 for not adhering to the route suggested by the GPS (Philadelphia Parking Authority, 2006) despite the fact that the GPS system did not contain information regarding changing traffic patterns, accidents or construction. The GPS signal was blocked by the tall buildings and was outdated, directing drivers to a sports stadium that

had been demolished two years prior (Volk, 2007). Further, the drivers opposed the particular system which was introduced because it did not improve and centralize the dispatch system which could have made the dispatching of cabs fairer (Volk, 2007). While the PPA had introduced an extensive technologically based monitoring system focused on micro-managing the drivers, it did not address problems in the industry with which technology could be used to make the industry fairer and more efficient. To promote the programme to the public the PPA used an expensive public relations company with a retainer of $10,000 a month to manage the public portrayal of the changes (Kase, 2012). Within this media portrayal the GPS system was sold to the public to prevent them from being 'gouged' (McDonald, 2006) or 'taken advantage of' because of drivers 'who are problems' (Volk, 2007). In so doing, the GPS was sold to the public by constructing the drivers as potential con-men that needed to be monitored in order to protect the interest of consumers.

In 2005 a group of drivers organized to lobby for a fare increase and oppose the Technology Enhancement Project with a focus on the introduction of GPS and the credit card machines. Historically, there had been a 'Brotherhood of Taxi Worker's' which somewhat functioned as a union but was considered to be ineffective and problematic because it consisted of both drivers and owners despite their conflicting interests (Taxi Workers Alliance, 2007a). Inspired by and in conjunction with the Taxi Workers Alliance of New York City the group of drivers formed a Philadelphia chapter to be named 'Taxi Workers Alliance of Pennsylvania'. The driver-organizers faced significant difficulties in gathering support amongst the diverse group of 5000 drivers in Philadelphia. First, there

were many different types of drivers (part-time, full-time, night drivers, day drivers, owner-operators, those who only worked the train station or airport, etc.) and they historically had little contact with each other (Mathew, 2005). Secondly, the diversity extended beyond the professional circumstances as the drivers were predominantly new immigrants from at least forty different nations, different religions and different ethnic groups (Shukur, 2010 and Diulio, 2011). There were prejudicial attitudes between different ethnic groups and a distrust and skepticism towards the African-American driver-organizers (Thompson, 2008). Third, drivers were skeptical that the 'Alliance' would offer an improved representation over the 'Brotherhood' as drivers had been paying dues for years to the Brotherhood without visible results. Fourth, as a group of independent contractors it was difficult to convince the drivers that there would be any personal benefits to working together with other drivers. Though poorly paid and with many health and crime risks, drivers often justified their occupational choice by highlighting the 'independence' of the job (Mathew, 2005). Forming a collective body was, in some ways, counter to the perceived culture of taxicab drivers as they worked primarily on their own with self-measured interaction between customers and other drivers. All of these difficulties specific to the taxicab industry were also within a context of declining union participation more broadly. Despite this, those involved in the Taxi Workers Alliance of Philadelphia were optimistic and considered themselves as pioneers working to improve labour relations for future generations and for the working class as a whole (Taxi Workers Alliance, 2007a).

Limited success

After successfully lobbying for a fare increase, the newly formed Taxi Workers Alliance of Philadelphia opposed the Philadelphia Parking Authority in a number of ways. First, they filed a lawsuit alleging that the PPA did not go through the proper process of presenting the proposal to the public (Blount v. Philadelphia Parking Authority, 2006). This lawsuit was filed in the state court and was rejected because the state court determined that the PPA was a city regulator. This issue dragged on for years and in 2009, a similar lawsuit was filed in the city courts which was again rejected because the city court determined that the PPA was under the state jurisdiction (Blount et al. v. Philadelphia Parking Authority, 2009).

In addition, the drivers organized a number of strikes. In 2006 there was a strike with 98% of drivers participating and included a rally at City Hall (Shukur, 2010 and Taxi Workers Alliance, 2007a). The PPA permitted taxicabs from the suburbs to work the city that day and dismissed the strike as ineffective (Volk, 2007). In early 2007 a spontaneous strike was held after inspectors attempted to tow the cab of a driver who refused to accept credit card payments at the airport. Television crews arrived to film the scenes of the driver being pulled from his car and arrested (Taxi Workers Alliance, 2007b). Because the incident occurred at the airport the PPA filed charges against the Eritrean driver under the Patriot Act suggesting that it was an act of terror (Thompson, 2008). Later in 2007, the TWA-Pennsylvania joined with the TWA-NYC for a two-day strike. Press coverage focused on how little impact the strike made in either city (Solomon, 2007). The drivers in Philadelphia, as a result, ended the strike a day early.

When, in 2007, drivers refused to comply with orders to use credit card machines, the PPA enacted an 'executive order' and increased fines and penalties for non-compliance (Sule v. Philadelphia Parking Authority, 2010). Further, the PPA sought to isolate the drivers and TWA organizers specifically. The driver who was pulled from his car, that he owned, at the airport was a TWA organizer. The PPA sought to counteract the negative publicity of the televised violent scenes and crying driver by evoking the Patriot Act and connecting the drivers to discourses of immigration and terrorism. In 2008 a female passenger accused the President of the TWA, Ronald Blount, of assault after an alleged dispute about paying by credit card. Blount was arrested at PPA headquarters amid reported cheers from PPA staff (Wolfson and Velis, 2010). After Blount was exonerated of the charges, the PPA again tried him on the same charges within their Administrative Court where he was again found to be not guilty (Wolfson, 2010). In 2010, continuing the campaign to tie drivers with negative discourses on immigration, the PPA invited twenty-six drivers to the PPA offices where they were questioned by ICE immigration agents with four being detained (Thompson, 2010). ICE agents stated that the investigation was because drivers had access to parts of the airport beyond the general public with an implicit suggestion of terrorism (Thompson, 2010). Blount highlighted that four out of six thousand drivers did not constitute a problem.

Initially, the members of the TWA sought to garner public support for their efforts to oppose GPS and to tie their privacy dispute to customers who could also be monitored since the PPA could match their credit card details to a

particular trip (Volk, 2007 and Campisi, 2010). Drivers pointed out that the government was now able to track their trips to, for example, a strip club or an abortion clinic (Inskeep, 2006). However, these efforts did not succeed in countering the alternative narrative publicized by the PPA that the GPS system functioned to protect consumers from dishonest drivers (Ney, 2009). The drivers were more successful when they shifted the focus away from their own experiences and, instead, called for greater scrutiny of the PPA more broadly. The PPA was also the agency that handed out parking tickets and, as such, were disliked by the general public. Further, as a component of the transfer of the Philadelphia Parking Authority from the city to the state the Philadelphia Parking Authority was supposed to provide the revenue from parking tickets and taxi fines back to the city to fund the public schools. The city and state governments became involved in a bitter dispute over this issue (City of Philadelphia v. Rendell, 2005 and City of Philadelphia v. Philadelphia Parking Authority, 2003) which continued for years and which the TWA sought to capitalize on in their own disputes against the PPA. The TWA campaigned for the city's demand for an independent financial audit of the PPA (General Assembly of Pennsylvania, 2007) which exposed numerous faults in how the PPA handled its revenue which, thus, further tarnished the image of the PPA amongst the general public in Philadelphia (Kerkstra, 2009).

The TWA also gained more traction when they were able to consolidate and align efforts more closely with the taxicab companies and owners. While they had initially split from the 'Brotherhood' because of conflicting interests between drivers and owners, they later re-linked the two sides of the industry with the

Unified Taxi Workers of Pennsylvania in 2008. The companies and owners were similarly opposed to the extensive micro-managing of the PPA and the administration of fines. The two groups began a number of lawsuits both together and separately to challenge the authority of the PPA (Blount v. Philadelphia Parking Authority, 2006; Blount et al. v. Philadelphia Parking Authority, 2009; Sule v. Philadelphia Parking Authority, 2010 and Germantown Cab Co. V. Philadelphia Parking Authority, 2010). These lawsuits demanded further clarification of the role and jurisdiction of the PPA. The case with Germantown Cab Company and Sule questioned the legitimacy of the PPA and determined that the regulations were void and unenforceable (Philadelphia Parking Authority, 2010).

Following the 2010 court ruling there was a period of 'regulatory void' when it was unclear what powers the PPA had to regulate the taxi-cabs. This was resolved in 2011 when the public regulations were published by the PPA in the fall of that year. In these ordinances, the requirement to have GPS was maintained. In addition, drivers were also required to possess a paper map, just in case (Philadelphia Parking Authority, 2011a).

Discussion

The context in which the transformation of the taxi industry was enacted demonstrates the complex connections between the working lives of individuals and the neoliberal ideologies of urban renewal. The urban renewal process of the city involved not only the regulation of public spaces but, also, of the individuals

who worked in these public spaces in the service industries. This requirement for cleanliness becomes 'a catch-all category under which problems of marketing, environmental improvements and street safety become conflated' (Coleman, 2003: 24). There is a parallel between the city and the individual in this process of urban renewal. The means of cleaning up the city was both actual (through urban beautification projects) and subjugating, conflated with the use of monitoring to make it more palatable for tourists and consumers. Similarly, attempts to sanitise the taxi industry were both actual (fining drivers for dirty cars, not wearing a collared shirt and having mismatched hubcaps) and subjugating, conflated with the use of GPS monitoring to make the industry more palatable for tourists and consumers. As such, the regulation of the individual (Alvesson and Willmott, 2002) is connected to the broader processes and tensions of urban renewal. Surveillance works alongside aims of creating 'a visually pleasing city' and 'reinforces regenerative claims made for the city space' (Coleman, 2005: 141-142). However, these 'urban electronic infrastructures' both regulate and restrict the urban environment (Lyon, 2007: 97). The regulation of the service industries for tourist consumption also restricts the behaviours of users and, more importantly, those who carry out the labour in these spaces. Encroachment on privacy is understood as a trade-off for safety.

In the case of Philadelphia, the taxicab drivers' issues were intrinsically tied up with disputes and frictions regarding the urban renewal process. The complicated power struggle between the city and state governments over who was best suited to regulate the city services and, perhaps, a desire by the

governor to see to the end processes he began as mayor, functioned to further disadvantage the drivers as actors. Their dispute was a small component within a much broader dispute involving more powerful actors. The city government did not offer public assistance to, endorsement of, or comment on, the plight of the taxicab drivers. However, the city government did accept assistance from the drivers within the context of the city's dispute with the PPA when the drivers assisted in lobbying efforts demanding an independent financial audit of the PPA.

The taxicab drivers interpreted the increased regulation as a degradation of their labour and, with the GPS in particular, as a component of de-professionalization. The monitoring in the form of the physical human harassment by PPA inspectors and the silent, always on, presence of GPS were understood as symbols of distrust and as elements of a broader plan to negatively portray drivers as a means to justify the regulation and to counter negative feedback. The PPA capitalised on stereotypes of drivers as con-men and incorporated the broader othering of immigrant labourers placing drivers within the context and discourses of anti-immigrant sentiment and fears of terrorism. The PPA hired a public relations company and the negative portrayal of drivers escalated as the driver opposition and non-compliance intensified and as the TWA gained increasing legitimacy amongst drivers and the public.

There are three instances of the PPA capitalising on circumstances to portray the drivers as violent and illegal as a means of implicitly justifying the use of surveillance monitoring in the interest of public safety in addition to consumer protection. While the PPA did not explicitly link these events to the installation of

GPS in the taxicabs, they functioned to discredit the drivers and TWA organisers in particular. First, when a TWA organiser refused to comply with the executive order requiring the use of credit card machines there was a publicised standoff between inspectors. They PPA responded by invoking the Patriot Act with the implicit suggestion of terrorism. Though the charges were later dismissed, the insinuation was made of the drivers as potential security threats. The second concerns how the PPA handled the charges of assault of a customer by the president of the TWA, Ronald Blount. He was arrested in the PPA offices in front of cameras and reportedly among cheers by PPA staff. The event and charges were widely publicised locally. When found not guilty in the courts, the PPA prolonged the episode by trying him again through their own disciplinary mechanisms even though he was, again, found to be not guilty. The event tarnished the reputation of Blount, put him out of work for a prolonged period, and damaged the legitimacy of the TWA while also reinforcing the perception of potential risk to public safety by the drivers. Finally, the media spectacle of the raid by immigration agents of drivers within PPA offices is a further example of a publicised media event organised, promoted or prolonged by the PPA to portray the drivers as potentially dangerous or illegal. These actions fall far outside of the normal remit of the regulator whose role is to merely to ensure that the different parts of the industry work together effectively and fairly. They used the media and abused their power and the role of their own court to manufacture media spectacles which denigrated drivers and perpetuated negative stereotypes.

While the imposition of GPS was legitimised through safety concerns and consumer protection, the use of the technology de-professionalised the drivers. GPS works as a form of 'augmented space' overlaying the physical space with a digital representation (Manovich, 2006). These systems have the potential to change 'forms of visibility by informationalizing space' producing 'new templates for decision making' that implicitly challenge the nature of expertise (Thrift and French, 2002: 325). However, these systems are always 'selective, incomplete, biased and subjective' and there is a concern as to how they are used to 'transform the way that we establish meaning, construct knowledge and make sense of our surroundings' (Mitchell, 2003: 120). In the case of Philadelphia, the systems installed were out-of-date and often inaccurate. Drivers were directed to buildings which no longer existed and recommended long circuitous routes to nearby locations. Further, these systems must 'negotiate the architectures of spaces that they attempt to inhabit' and consist of 'ebbs and flows' and 'troughs and peaks' (Matt Locke in Manovich, 2006: 228). The GPS system was disrupted by the tall buildings of Philadelphia and the system had a delay which meant that cabs were not where it read them to be. Drivers were required to adhere to a digital representation of the city that was flawed, inaccurate, incomplete and static. The system neglected the dynamic nature of urban traffic patterns and did not account for traffic, construction nor the particular uses of space (such as streets dominated by pedestrians). Drivers were subjugated to 'the rule of the machine' (Meyer, 2008: 152) and their own expertise was discounted. Tacit knowledge accrued through experience and their lay understanding of the rhythms and patterns of the city street were devalued. The labour was dehumanised and mechanised as they were instructed to follow the path of the

digital representation, regardless of the flaws. Further, the imposition of GPS infringed upon the autonomy and independence of the taxicab drivers which was a significant feature which many drivers embraced about their positions. The use of the technology had the dual function of monitoring the drivers and deskilling their labour. It was, therefore what McCormack and Salmenniemi (2016) describe as a 'technology of subjugation'. In this way, this case demonstrates how regulatory interventions can impact upon the employee's self-construction of identity as a mechanism of control (Alvesson and Willmott, 2002).

The transformation and regulation of the taxicab industry in Philadelphia is not exclusively a narrative of subjugation but, also, a case study which illustrates the complexity of regulatory systems, surveillance technologies and practices of resistance as aspects of, and responses to, neoliberalism. The complexity of resistance is often ignored as well as the tensions between 'resistance and accommodation' which highlight the 'social and interactional nature of resistance' and connect to debates about 'power and control and the relationship between individuals and social context' (Hollander and Einwohner, 2004: 550). The formation and eventual legitimising recognition of the Taxi Workers Alliance of Pennsylvania demonstrates the difficulties, complexities and the possibilities of resistance within precarious industries.

There are three ways to understand the difficulties the TWA encountered in their efforts to challenge and resist the PPA. First, there were difficulties narrowly specific to the circumstances within this industry at this particular moment in Philadelphia. Second, there were issues that were connected to the taxicab

industry more generally. Third, they faced difficulties emblematic of broader issues of precarious labour. They were triply disadvantaged in their position. In the first instance, resistance was hindered by the historical weakness and negative perception of the 'Brotherhood', and the general decline in organized labour. More significantly, they were hindered by the ambiguity of the legitimacy and jurisdiction of the regulator. They were contesting the regulator while, simultaneously, the city government was in dispute with the state government and the regulator over issues of jurisdiction and distribution of revenue.

In the second instance, efforts of collective resistance are difficult within the taxicab industry. The recruitment to collective action is complicated by the isolated and independent nature of the labour and then further complicated by the wide diversity of the workforce in terms of classification of labour and ethnicity (sometimes carrying prejudices with them when they immigrate such as tensions between Indian and Pakistani drivers as documented by Mathew, 2005). The different forms of drivers, particularly between hire drivers and owner-operators, can be viewed as having competing interests because of the differences in investment, costs and risks associated with owning or not owning their own vehicle. Donald Anderson (2012) describes how the ambiguous role of drivers complicated debates concerning the introduction of cameras in taxicabs in San Francisco. The independent, dispersed and mobile nature of the labour results in circumstances where there are loose ties between individuals in the industry. The burden to establish meaningful connections and to instil a sense of solidarity amongst united individuals is thus much more difficult within

industries like the taxicab industry as compared with more traditionally strong unionised occupations such as factory workers.

Third, many of the difficulties of establishing a collective body and organising effective resistance experienced by the taxicab drivers are emblematic of broader issues of precarious labour. Taxicab drivers were classified as 'independent contractors' and not employees. As such, the drivers were limited in their ability to unionise (as demonstrated in this case study) and were hindered in their ability legally to carry out acts of collective resistance such as striking (Anderson, 2012). Their work is intrinsically precarious and through the organisation of the industry they assume all of the risk. While the owners and regulators fees are mandatory regardless of income, drivers began shifts in debt and were not guaranteed any level of income. Within the context of this case study these issues were exacerbated by the PPAs ability to demobilise vehicles thus controlling the drivers' ability to work and further highlighting the risks of opposing the PPA rules. The labour is insecure and the power relations starkly unequal. While the conflicting interests between drivers and owners fits more closely with conventional understandings of labour disputes the additional role of the regulator means that the drivers were doubly discriminated against. The dispute over the jurisdiction and role of the PPA in regulating the industry demonstrated the ease in which regulators can insert themselves into an industry, expand their remit with minimal limitations and extract revenue from already burdened workers. Further, they can do so without offering anything in return to the labourers in the form of stability, insurance or protections.

Because of their status as independent contractors, the taxicab drivers, along with other precarious labourers, struggled to gain recognition and support from traditional labour organisations. Despite earlier requests for assistance and advice, the Taxi Workers Alliance (named as an umbrella organisation encompassing both the New York City and Philadelphia branches) was not accepted into the AFL-CIO until 2011. In welcoming the organisation, the AFL-CIO stated that the group was 'ready' to be accepted into the broader group despite the fact that the New York City chapter had formed in 1998 (AFL-CIO, 2011). The AFL-CIO acknowledged that the collective bargaining power of taxicab drivers had been weakened by the classification of drivers as independent contractors. Further, they acknowledged that employers were increasingly intentionally misclassifying workers as independent contractors as a way of avoiding statutory commitments and unionisation (AFL-CIO, 2011).

Other acts of resistance that challenged the legitimacy and reputation of the PPA were more covert. As such, this case study fits Real and Putnam's (2005) depiction of resistance with multiple targets and of hybrid forms of resistance which link overt collective action with less visible opposition. Further, it can be understood as constituting 'a set of discursive and non-discursive practices that are simultaneously enabling and constraining, coherent and contradictory, complex and simple, efficacious and ineffectual' (Mumby, 2005: 38). Traditional explicit and overt practices such as striking were broadly ineffective. Challenging the regulator through the courts was somewhat successful but involved a realignment of the traditional owner-driver dispute (traditionally the role of the regulator had been to mediate between the taxicab company owners and the

hired drivers whereas, in this situation, the owners and drivers filed joint lawsuits against the regulator). Lobbying and campaigning, in conjunction with the city government, for an independent audit of the PPA was successful and, through the exposure of faulty practices, damaged the reputation of the PPA. Within this context, the drivers adopted and inverted the PPAs own discourse, attempting to appropriate the legitimacy of the dominant neoliberal discourse to achieve their own ends. They did this, for example, by demanding an audit of the PPA to appeal to consumer sensibilities. They also did this by aligning themselves within a broader network of activist groups responding to neoliberalism. They began working with the Media Mobilising Project which functioned as localised communication-based network that worked with a broad range of advocacy groups such as TWA to promote and support their efforts. The two groups shared office space and resources and the TWA benefitted from interactions with groups experienced with the use of alternative and social media within the context of social movements thus demonstrating 'the crucial role that media play in sewing together groups and movements that face distinct but ultimately similar struggles against the neoliberalization of the city' (Berger, Funke and Wolfson, 2011: 193). In summary, while the material and physical circumstances have little changed, the TWA succeeded in developing collaborations with other impacted actors and effectively fought discursively to counter negative portrayals of the workers in the industry.

Conclusion

The effectiveness of the Taxi Workers Alliance of Pennsylvania in their resistance to the introduction of GPS and what they understood as the excessive regulatory involvement of the PPA was largely unsuccessful with some elements of success. The TWA were at a structural disadvantage because of the precarious nature of their labour and their classification as independent contractors. Traditional acts of resistance were largely ineffective, evidence itself of the embeddedness of neoliberal patterns in the contemporary political economy. The impact of strikes was minimal because the PPA permitted out of town cabs to work the city on those days and because of the lack of public support for the strikes. Explicit acts of non-compliance were also largely ineffective because of the ability of the PPA to administer fines and disable vehicles. The lawsuits which challenged the jurisdiction and legitimacy of the PPA's regulations were technically successful in that the owners and drivers were successful in arguing that the PPA's regulations did not follow proper procedures. However, they did not fundamentally shift the structure nor transfer any more power or control towards the drivers as the PPA merely responded by enacting similar regulations appropriately. Nevertheless, the success for the drivers in these lawsuits were largely due to combining efforts with the cab owners. Both groups felt aggrieved by the PPA micro-managing, whether as workers or business owners. This demonstrates the complex nature of the power relations in this context, and the changing (or changed) nature of post-Fordist/post-industrial capitalism. That is, where *both* labour and capital (or at least one element of capital in the form of the taxicab business owners) are subjugated to the needs of the system as a whole; whereby the owners of the taxi-cabs were drawn into the structures of subjugation alongside the taxi-drivers.

This speaks to Hanlon's (2016) notion that neoliberalism encourages the extraction of value "beyond the organization" in post-Fordist contexts. In this situation, the rent extracted from the labour (and by extension also from the capitalist-owners as well) was appropriated by the PPA acting on behalf of the interest of the system itself. This is, then, also a story of how managerial and political elites have absorbed power and used it to configure the systems of capitalist production to suit their own needs–there has been a separation of ownership and control, and indeed ownership and benefit. There is in this a similarity with the capture of the rents of finance capital through the process of financialization (Krippner, 2005), particularly through the mechanism whereby first-order risk is borne by investors and shareholders, and catastrophic risk is socialised, while the rewards of finance accrue to elites. The case of the taxi-cab drivers in Philadelphia in the period 2004-2011 should, therefore, be seen as part of a much broader trend within the contemporary political economy as a result of neoliberalism (see Maguire and Murphy, 2014 for an alternative example of neoliberalism and taxi regulation in Ireland). Indeed, the events narrated and discussed here are merely the prologue to the more recent transformation of the taxi-industry triggered by firms such as Uber and Lift, that follow the logic of post-Fordism, value extraction, de-professionalization and regulatory avoidance to their logical conclusion (Pettica-Harris, et al., 2018; Zwick, 2018). This case study also prefigures the complexities of resistance to the use of technology for regulation and how GPS, which becomes an integral aspect of ride-hailing apps, reconfigures how drivers understand their agency within the profession. The implementation and imposition of technology often

emerges as the site of contestation through which drivers develop means of working around and manipulating their 'marginality and informality' (Chen, 2018).

In conclusion, while this analysis is pessimistic, it is not fatalistic. This case study enables us to observe over time the increasing difficulties of resistance within the context of neoliberal regulation and increasingly precarious labour. Neoliberal systems adapt and continue to evolve particularly as the technology used advances. However, practices of resistance and structures of organising also evolve. Resistance, even if not wholly successful, opens up new terrains. This case study provides a small example of this as the drivers themselves, over time, constantly evolved and adapted their practices. They did not remain static but continued (and continue) to seek and gain further alliances. This case study is novel in part because the drivers did try so many different tactics. Within the context of concerted efforts of de-professionalisation and negative portrayals, they have established themselves as a strong and legitimate organisation within local politics. This case study functions as a prologue for subsequent developments within the gig economy as an illustration of *both* practices of control and of opportunities for collective action and resistance.

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Appendix One: List of Actors and Organizations

Philadelphia Parking Authority (PPA): established by the Philadelphia City Council in 1950, in 2001 it moves to state control, in 2004 it becomes regulator of the Philadelphia taxicab industry

Pennsylvania Public Utility Commission (PUC): established in 1937, State (Commonwealth) regulator of a wide range of industries including the taxicab industry, in 2004 regulation of only the Philadelphia taxi industry (ie: not the taxi industry in the suburbs or anywhere else in the state) is moved to the Philadelphia Parking Authority

Ed Rendell: Mayor of the city of Philadelphia between 1992-2000, Governor of the State of Pennsylvania between 2003 and 2011

John Street: Mayor of the city of Philadelphia between 2000-2008

Taxi Workers Alliance of Pennsylvania (TWA): established in 2005 as a non-profit organization, effectively functions as a union with members paying dues, however, at the time of forming the National Labor Board did not recognise organized independent contractors as a union

Brotherhood of Unified Drivers and Owner Operators: organization of drivers and owner operators in Philadelphia from which the TWA splits off in 2005

Unified Taxi Workers Alliance: in 2007 the TWA and the 'Brotherhood' merge into one organization but remains commonly referred to as TWA

Center City District: formed by property-owners, commercial tenants and employers, and the City of Philadelphia in 1990 as a private-sector business improvement district in the city centre of Philadelphia, it is authorized under Pennsylvania's Municipality Authorities Act (Center City District, n.d.)