

***Vorsprung durch Technik*: the future of work, digital technology and the platform economy**

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'... there is no technical solution to the future of work: there isn't an app for that.
It is a political *problem* ...' (Dunlop, 2016: 206)

Introduction

Ironically devised by a Briton as an advertising slogan for the German auto manufacturer Audi, *Vorsprung durch Technik*, translated as 'progress through technology', sums up many reactions to the digitalization of economic activity – it portends to improve the provision and production of goods and services to the benefit of all.

New digital technologies certainly impact the production of goods and services and the social organization of economic activity. As such, these new digital technologies are disruptive. It might be, however, that changes are not beneficial to all. This chapter focuses on the digitalization of work, especially the impact of the platform economy and companies such as Uber on the providers or producers of services – in the case of Uber, its drivers.

The chapter has two main parts. The first, focusing mainly on Uber, outlines the technophilia and techno-anxiety induced by the platform economy and the digitalization of work. The second focuses on the perceptions, positions and policy responses to the digitalization of work. It challenges the technological determinism that features in much of the debate about Uberization, arguing that the future of work is not fixed. Instead there are a range of possible futures of work arising from the alleged benefits and problems associated with the platform economy. Politics as much as technology will shape the eventual outcome.

The Platform Economy: a Technophile Dream

The so-called 'Digital Revolution', in all its various guises, for example, the 4th Industrial Revolution, is defined by Enrique Fernández-Macias as 'a general acceleration in the pace of

technical change in the economy, driven by mass expansion of our capacity to store, process and communicate information using electronic devices' (2017: 1). The widespread use of these digital technologies would herald a shift from a Digital Revolution to a new 'Digital Age', Fernández-Macias continues. This possibility is a technophile dream. Often seduced by tech company rhetoric, technophiles enthuse over, even eulogize, the potential to improve not just the economy but also human interaction and endeavor more generally.

There are four main ways in which digitalization disrupts the social organization of economic activity. The first is through the *digitalization of production*. This possibility has caught the attention of policymakers as 'the rise of the robots'. Work was mechanized in the first industrial revolution, if not before. Early mechanization worried the Luddites, who were concerned about massive job losses. The same argument is made today – that the clever robots will replace human labor. In their very influential report, Carl Frey and Michael Osborne (2013) calculate that just under half (47%) of US jobs will disappear over the next two decades. Such claims can be overplayed and are often mere speculation, says Tim Dunlop (2016). However, there are genuine ballot-box implications for politicians if the most vulnerable workers with least capacity for job-hopping to other opportunities are those most likely to be replaced by the robots.

The second way is through the *digitalization of products*. In this internet of things, marginal costs for digital goods, or strings of bits are low, especially as they require little paid labor for input, instead relying on the unpaid labor of people who leave digital footprints through shopping, networking or just browsing on the internet. These footprints are then harvested and commercialized. Use of this internet-user-generated data (or Big Data) is likely to intensify if the Cloud enables a unification of information (Gubbi et al. 2013). Intellectual property rights are likely to become a battleground as companies seek to collect this data and state-led surveillance systems seek to enforce privacy and ownership rights for those who generate it (Fernández-Macias 2017).

The third way is through the *digitalization of workers* or, more accurately, of human movement and behavior in the workplace – and sometimes outside the workplace. Some employees already wear tracking devices, even implanting microchips into workers is possible, with employers citing efficiency and security needs. One UK company uses fingerprint data to identify workers who express discontent (Davies 2017). This development is an extension of existing software-enabled surveillance of workers, through touch-keypad monitoring or the use of CCTV in workplaces. Other companies use social media to screen job applicants. There are significant human rights and privacy issues to be tackled before hyper-surveillance of this kind gains legal approval.

The fourth way is through the *digitalization of work*, more specifically its migration onto platforms. Platforms are digital networks that coordinate economic transactions – usually matching the demand for and supply of resources through algorithms. Different types of platform exist, with the main difference being those for the exchange of goods (e.g. Ebay and Amazon Marketplace) and those for the exchange of services (e.g. Uber and Airbnb). The digitalization of work centers on the latter – services. Services can be routine and non-routine, local or global. Tasks can be physical (e.g. TaskRabbit), intellectual (e.g. Upwork) and social (e.g. Bubble), Enrique Fernández-Macias (2017) notes. The outcome of this digitalization of work is not the end of (human) labor but the death of employment contracts as jobs are replaced by contracts to undertake (micro-) tasks.

Until recently the focus of debate about the platform economy centered on its positive consumer benefits. Cast benignly, it is a version of neighbours helping neighbours in a 'sharing economy'. One form of this help is non-profit car-pooling and Uber explicitly draws on this imagery, stating that it offers 'ride sharing'. This sharing, it is argued, helps reduce the non- or under-use of resources. In the new age, 'underutilised assets become peer-to-peer services for hire, enabled by the Internet and smartphones' states Michael A. Cusumano (2015: 33). Even better, it offers on-demand consumption. Uber, for example, offers anytime, anywhere transportation and which, moreover, tends to be cheaper fares than that provided by existing taxi companies (Butler and

Topham 2017). Governments laud these consumer benefits. For example, the UK Government's review of the sharing economy is framed exclusively in terms of the benefits for consumers arising from new digital technologies. Providers are simply 'everyday entrepreneurs ... seeking to shake up the market by solving other people's problems' according to the UK Government (HM Government, 2015: 1). If there are concerns, it is to ensure consumer protection and that the calculation of tax liability is made easier for providers (Woskko 2014).

Whilst a number of companies claim to specialise in this disruptive innovation, Uber is the 'poster child' for the platform economy, says J. Walker Smith (2016). Indeed 'Uber' has become a 'shorthand' amongst tech start-ups that offer a 'technological solution for any of life's frustrating, dull tasks' (Webb 2016: n.p.) and 'Uberization' a shorthand to describe a paradigm shift in the social organization of economic activity. Founded in 2009, Uber now operates in 633 cities worldwide with an annual revenue of \$20bn. It styles itself as a digital platform that matches users (ride-seekers) with providers (drivers); simply a 'connecting service' (Adam et al. 2016) for those wanting and offering transportation. Uber insists that it is only a technology provider – an app – with drivers paying to access the app to connect them to users. Users pay Uber, which charges a service fee, most of which is then passed on to drivers. Drivers are not employed by Uber. Consequentially they receive no health insurance, holiday pay, (paid) sickness leave or minimum wage. Instead they are 'partners' using their own vehicles. Uber provides drivers with a personal identification number, its app and a smartphone if the driver does not have one, but no work is guaranteed. Uber does not set maximum or minimum hours that a driver might work; instead drivers determine their own working time and intensity (Smith 2016; Tomassetti 2016). The premise is that drivers have the flexibility and freedom to 'work whatever hours they please,' says Brishen Rogers (2015: 99): it is self-management by 'independent entrepreneurs'. As Uber explains to its drivers, 'you're in charge'.¹

Platform economy companies claim to be merely online facilitators, their apps simply labour market sorting devices that provide a matching service in a triadic relationship. Users buy the

undertaking of tasks for a fixed or auction-based price; providers sell their labor, self-managing the task independently and autonomously; and platform companies broker the two. However, the triadic relationship has a systemic power asymmetry: the company doesn't just co-ordinate the buyer and seller but controls their interaction. Platform companies 'control who sees what and when, what interactions between the two are possible and under what conditions, and they wield this control technically, legally and via the design of the interface,' Florian Schmidt (2017: 10) points out. Risks and liabilities however are borne by the buyer and seller.

Until recently, concerns about this digital technology centred on it as 'permission less innovation' (Thierer, 2014), with companies, such as Uber, operating outside regulatory frameworks. One concern is potential tax evasion by providers – e.g. Uber drivers do not offer receipts to passengers and may not be paying tax on their earnings. In Hungary and the UK, Uber itself has come under scrutiny over whether it makes meaningful tax payments (Adam et al. 2016). Another concern is unfair competition for existing businesses which adhere to regulatory frameworks. This alleged unfair competition has led to legal challenges to Uber in Europe and the US (Adam et al. 2016, Eurofound 2016b; Rogers 2015). In 2017 Uber was told that it would not have its licence renewed by the London transport authority, Transport for London (TfL). Uber, TfL stated, had failed regulatory compliance. The Mayor of London, Sadiq Khan, explained: 'I welcome innovative new companies but providing an innovative service is not an excuse for not following the rules'². Uber has lost its operations in Bulgaria, Denmark and Hungary for the same reason. Admitting the problem in an attempt to restart operations in Denmark, Uber's Nordic representative admitted that the company had 'made mistakes' but was now 'willing to play by the rules'.³

Techno-anxiety, Worker Rights and Company Responsibilities

As the Luddites show, techno-anxiety about the 'inevitable' job destruction through of technology is long-standing but has revived recently over concerns about the rise of the robots and the digitalisation of production following Frey and Osborne's (2013) report. However as Michael

Osborne (2015) later pointed out, the original study offered no analysis of potential job creation. A range of possible impacts of technology on jobs exist he stated: job loss, job change and job creation. Each time techno-anxiety has been stoked, for example in the 1960s when firms first started installing computers, more jobs have been created than destroyed, the *Economist* (2016) points out. This time round, as Tim Dunlop (2016) suggests, the evidence is contradictory, in part because of the different assumptions and methodologies used in the underpinning research. 'The conclusion', he states, 'seems to be less that the robot will take your job than the robots will redefine what we understand by a job' (p.109).

A new and different kind of new techno-anxiety has emerged about workers in the platform economy. Concern centres on the *employment status* of these providers, framed by the UK Government's *Taylor Review of Modern Working Practices* (2017) in terms of the rights of providers and responsibilities of platform companies. As the trade union journal *Labour Research* (2016: 13) neatly puts it, 'Those working through these platforms do so outside of traditional employment relationships and without the rights and protections that come with normal employment contracts. These right and protections disappear if providers are wrongly labelled as independent contractors. In the 1980s, with the introduction of computer numerically controlled (CNC) machinery, the debate centred on new technology as a means of labour control *within* the employment relationship. Now with apps and algorithmic management of workers, the new debate focuses on digital technology as a means of labour control *outside* an employment relationship, with platform companies not only controlling the labour market of providers but also their labour process. If this control exists, the claims of worker independence and self-management become tenuous.

Uber is a lightning rod for this debate. Uber claims that it facilitates a client flow via the app to drivers but that the company owes no obligation to drivers. The relationship is based on mutual interest, rather than a set of mutual rights and obligations, not least to a minimum income or amount of work. It is a rudimentary pecuniary win-win offered by Uber – the company makes money

from its app, the drivers make money from the app. However, despite the use of the term 'independent contractor', the drivers are both dependent upon a technology – the app – and the company that controls the app. As Ross Eisenbrey and Lawrence Mishel (2016) of the Economic Policy Institute note, drivers are wholly reliant on access to Uber's app, which is granted by the technology company to carry out this particular work. The technology can never be autonomously controlled by the driver – its use is conditionally permitted and a relation of dependence remains central. Uber also monitors driver productivity, keeping comprehensive data on its drivers' trips, fares and time and uses this data to measure their waiting location and time, time-to-task and working time. Furthermore, Uber monitors, manages and rewards driver performance with productivity-based incentive schemes. It can, and does, deactivate drivers for poor productivity.

Probably the most important factor that differentiates Uber drivers from independent contractors is that they are subject to standardized price-setting – drivers cannot set their own rates for their services or negotiate them collectively. Not only does Uber set the price of rides, it unilaterally alters and varies the price of rides. Moreover, drivers largely cannot choose their customers. Unlike independent contractors, they do not build their own client base; instead, the client base comes through the app. Uber also has the power to unilaterally change (i.e. increase) the fees it charges the drivers. For example, in the US the fee started at 20% increasing to 25% in some US markets and in 2015 Uber began testing the impact of increasing a 30% fee (Huet 2015). Similarly in London, Uber raised the fee it takes from new drivers from 20% to 25% December 2015 (Hayward 2015).

Moreover, whilst drivers can choose when to activate the app, thereby choosing their own working hours, when drivers log onto the app, there is an explicit obligation to accept trips. This obligation is phrased as 'acceptance rates' and if Uber finds a driver is not consistently accepting trip requests, the driver may be temporarily logged off the app (see Uber's Driver Deactivation Policy⁴). Once the app is on, the driver is expected to take the customers who are directed to the driver. Due to

acceptance rate **quotas**, drivers cannot realistically engage in other productive activities such as driving for a competitor such as Lyft to minimize economically unproductive waiting time. Pace and intensification is variable, beyond the control of the driver and can be a matter of too much or too little. In London, for example, drivers have 15 seconds to decide whether or not to accept a job. If they refuse three jobs in a row, they are logged out of the system for 10 minutes (Knight 2015).

As drivers are compensated by task rather than time, driver income is dependent on an inflow of tasks. As the flow of customers is controlled by the app, the driver has little opportunity to control or impact the flow of clients. Increasing income is primarily a function of being available for longer – extending working time. Uber says its drivers are well-paid, claiming, for example, that New York drivers receive a median of \$90,000 per annum. However, as Erik Sherman (2015) points out, to make this amount at \$25 per hour, a driver would need to be work a 70 hour-week, 52 weeks per year. In the UK, the GMB trade union released the income details of one driver who, working 234 hours in one month, had consequently received £5.04 per hour – much less than the £6.50 per hour UK National Minimum Wage at that time (*Labour Research* 2016). The reality Natasha Singer (2014: n.p) suggests, is that these micro-entrepreneurs of the platform economy are ‘struggling to piece together a living wage from small, individual events’. The precariat of users is highlighted by the comment of the CEO of CrowdFlower, a platform company specialising in brokering data work:

Before the internet, it would be really difficult to find someone, sit them down for ten minutes and get them to work for you, and then fire them after those ten minutes. But with technology, you can actually find them, pay them the tiny amount of money, and then get rid of them when you don’t need them anymore.⁵

Reviewing drivers’ comments on online forums, Alex Rosenblat and Luke Stark (2016) describe the way that Uber controls its drivers through a set of mostly automated commands as ‘algorithmic management’. Their research suggests that the claim by Uber that its drivers are independent contractors is not supported by the evidence: any possibility of self-management is

Commented [WC1]: Larry, there’s a note from you at this point but I can’t read your hand writing.

usurped by this algorithmic management. As a consequence, providers' control of their labour market and labour process is illusory: control is embedded in the digital technology provided and operated by the platform company.

As a consequence, the employment status of providers has been questioned as bogus self-employment. Under a variety of different names – false self-employment, fraudulent self-employment, dependent self-employment, subordinated self-employment – bogus self-employment has received extensive political but little academic attention. Often treated as a form of involuntary self-employment (Eurofound 2017; Cruz et al. 2017; Thörnquist 2015), it is regarded as a misrepresentation or distortion of self-employment. At the core of the phenomenon is the use of a legal classification by companies to enlist service providers in a contracting rather than employment relationship. The reason is primarily financial. Companies avoid costs normally associated with employment: social benefits, pension contributions, injury insurance etc. In addition, there is greater opportunity to set time-limits and terminate contracts more quickly than in an employment relationship.

What characterizes any employment relationship is the subordination of labor to the discretion of the employer. The employment relationship allows the employer a managerial prerogative to direct, monitor, evaluate, discipline and reward 'their' employees. By contrast, what characterizes genuine self-employment is the degree of control exercised by workers over their work. This control is *temporal* – over scheduling, working time, intensity and length of effort, and *compensatory* – the self-employed sets a price for an outcome or goal rather than a process or presence, and this total price covers all liabilities and risks. It also covers the *work-process* – the self-employed usually make use of their own materials and cognitive tools, deciding how the work process is to be carried out (i.e. supervises him/herself). Finally, it involves *contracting freedom* – the self-employed are free to contract with whomever and as many clients as they desire.

The discrepancy around self-employment arises when these controls are blurred. Workers are treated legally, financially and for tax purposes as self-employed but lacking control over work and compensation processes is indicative of being an employee. In effect, what Uber practices is an invisible or uncodified employment relationship. Indeed, another legal ruling in the UK, this time in 2016, found that Uber drivers are not self-employed. However, the ruling fell short of reclassifying workers as employees. In 2017, Uber lost an appeal against this ruling but has said it will appeal to a higher court (BBC 2017).

Perceptions, Positions and Policy Responses

Benign and malign accounts of the platform economy exist, and of Uber in particular. However, the disruption caused by companies such as Uber, may be temporary. As Joel Mokyr and his colleagues (2015) note, there is a tendency to over-estimate the long-term difference made by some innovations. The platform economy is embryonic; as it matures there are two, very different, possible future scenarios: 'normalisation' and 'reinforcement'.

Normalisation centres on platform companies such as Uber becoming like other companies, mainstreamed as they eventually comply with existing laws and regulations such as the Disability Act in the US (Rogers 2015). In Denmark, trade unions have not only called for platform companies to comply with existing law, including labour law, but also for the company to join a Danish employers' organisation. With Uber's membership of that organisation, Uber drivers would be included in the same collective agreement as other employers in the industry (Eurofound 2016a). In an open letter to Londoners after its licence revocation, Uber CEO admitted that the company has 'got things wrong' and expressed the dire 'to make things right'. How far Uber is willing to play by the rules (Henley 2017) and normalise, remains to be seen. In response to legal challenges and quality assurance problems, some platform companies in the German cleaning industry have already reverted to conventional employment (Schmidt 2017).

Reinforcement projects current practices to be continued and extended with the use of algorithmic management. However there is a twist – with providers being replaced; in the case of Uber, by driverless cars. In 2017 Uber ordered 24,00 such cars from Volvo (Topham 2017). These cars solve the ‘labour problem’ for Uber. Driving, while not necessarily a routine task, can be automated and robotised. In this scenario it is not the death of employment that Uber portends but the end of (human) labor with the disappearance of driver jobs in all road transportation: taxi/coach/truck/van (cf. Frey and Osborne 2013). Technology replaces labour and production is digitalized.

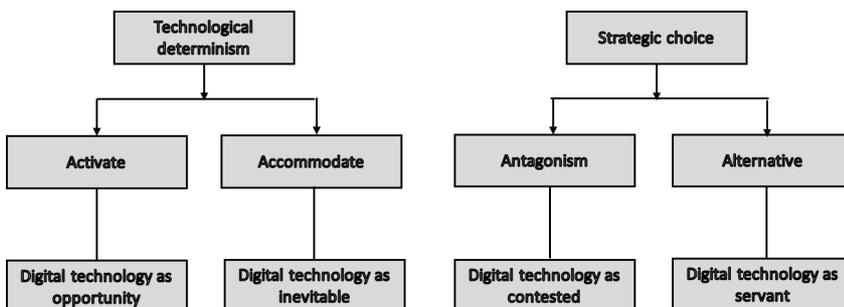
Three obvious policy responses might shape the adoption of these scenarios. These responses centre on: market, regulation and negotiation. With market, the assumption is that any deficiencies – for example poor quality of working life for providers or safety concerns for users – will, with sufficient public awareness, be ironed out by self-correcting markets and provider strikes and user boycotts (Rogers 2015). The second scenario, regulation, is beginning to be debated. It has two variants. One, led by Uber and its political lobbying, centres on the creation of new laws and regulations, needed, they argue, because the platform economy is different (e.g. Harris and Krueger 2015)⁶. The other, championed by non-platform companies, centres on Uber and other platform companies complying with existing laws and regulations (e.g. Adam et al. 2016). The third response, now gaining traction, entails challenges from organised labour for bargaining and negotiation rights. While Uber does not formally recognise the Independent Drivers’ Guild for collective bargaining purposes, some workers are withdrawing their labour over pricing, and many of the legal challenges to Uber have been supported in the UK by trade unions (e.g. Alba 2015; *Labour Research* 2016).

These potential policy responses are implicitly or explicitly underpinned by two different perceptions of new digital technologies – whether it is deterministic or whether choice exists in its use. Technological determinism sees technology as shaping the social organisation of economic activity. Joan Woodward (1965) was early in arguing that company organisation best followed the

type of technology being used. Now, in the 2010s, there is, at the very least, a deference to new digital technologies. Max Tegmark, author of *Life 3.0*, even likens our faith in the new technology to a religion (Anthony 2017). In riposte to Woodward, John Child (1972) contends that ‘strategic choice’ in the introduction and implementation of technology exists. Child sees this choice exercised by powerful actors within companies, for example management and trade unions. It could equally be applied to the design of the social organisation of economic activity more broadly. Perceived in this way, technology is not determinant. How it is used and for what purpose by and within organisations is shaped by human agency: by government, social partners, users and providers, and the public (e.g. Clark et al. 1988). It suggests not *working within technological constraints* but choosing *how to work with technology*.

Drawing on these two perceptions – that technology is deterministic or at least requires human deference, or that strategic choice exists in the introduction and implementation of digital technology – four positions exist. Each position has different attitudes towards and ideas about new digital technologies, as Diagram 1 below shows.

Diagram 1: Perceptions and positions about digital technology



Within the first position, activate, the attitude is wholly positive, advocating active embrace of new digital technology as opportunity. Both the political Right and some on the Left laud the platform economy. For those on the Right it offers *liberalisation through technology* – innovative individuals being able to cut through the red tape imposed by big government that hampers

entrepreneurialism. Platform companies create a direct relationship between users and providers that is 'an unregulated, voluntary, mutual benefit market exchange ... part of a new liberated economy that is slowly but surely transcending government shackles', according to libertarian Cory Massimino.⁷ For some on the Left it offers *liberation through technology*. If the employment relationship is fraught with structural antagonism, asymmetrical power relations favouring employers and is materially exploitative, as Anna Pollert and Andy Charlwood (2009) state, then platform working offers workers the chance of self-management and self-determination. In both perspectives, there is cross-position consensus that the employment relationship should end. It is an anachronism of the industrial age, being, on the one hand, constraining, and on the other hand, unjust, and better replaced with workers as free agents.

The second position, accommodation, held by the centre Right and Left, accepts new digital technologies as inevitable but recognises that there are socio-economic challenges with it. As a consequence some adjustments are needed to soften its worst effects. These accommodations can be distinguished into *conservative* and *radical*. The conservative approach accepts that providers are not genuinely self-employed and argues what is required is a third category status between self-employment and employment. One suggestion advocated on both sides of the Atlantic is 'dependent contractor' (Taylor 2017; Harris and Krueger 2015; for critiques, see Eisenbrey and Mishel 2016; Stewart and Sandford 2017). An alternative suggestion made in the UK Government's 2017 *Taylor Review of Modern Working Practices* is to compensate providers for their precarity with a wage supplement, in the UK case with a fixed payment above the National Living Wage.⁸ The radical approach accepts that the job losses will occur as human labour is substituted. At best, income opportunities for citizens will be reduced, at worst, there will be growing poverty and social inequalities. Residual work therefore needs to be distributed across the workforce, with workers equipped with digital skills to boost their capacity to participate in this residual work and for periods between work, welfare support will be needed as a safety net. This idea is one that has been floated by the European Commission in Brussels (EC 2017).

The third position is antagonism to this technology. It takes two forms. The first is to organise against *platform companies*. Organising workers in the platform economy, including Uber, can be difficult because they lack a single site/physical presence, and union dues can be relatively costly for low income workers (*Labour Research 2017*). Despite such structural barriers, there have been instances of Uber drivers organising or collectivising. The capacity for organisation is enhanced, according to Brishen Rogers (2015), by Uber drivers being tech-savvy and able to mobilise social media campaigns. By way of example, the International Association of Machinists and Aerospace Workers has formed the Independent Drivers' Guild, an association for New York City's drivers. The guild represents drivers in meetings with Uber, including when drivers appeal against Uber decisions to deactivate them. It aims to secure better terms and conditions for workers and to shift some risks away from workers and back on to companies. In the UK a similar Independent Workers Union exists, attempting to organise workers into co-operatives or help them develop their own apps, both initiatives supported by trade unions (*Labour Research 2017*). The second form kicks back against the *platform economy* and seeks to do more than soften its worst effects. Instead, it rails against the platform economy's structural undermining of full-time, permanent employment and full employment. It wants active labour market policies from government, and jobs that pay decent wages, meaning, in practice, workplaces organised by trade unions. Such jobs deliver more than decent wages. They also provide dignity for individuals and security for families – in short pride and prosperity. As such, it also critical of neo-liberalism, wanting instead to replace it with something like social democratic corporatism. Tim Dunlop (2016) calls it the 'back-to-the-future' position, which eulogizes the golden era of Fordism in the mid-twentieth century when male, manual workers in manufacturing dominated and the (male) bread-winner model of employment existed. As the composition of the economy and workforce have changed, Dunlop questions its feasibility now.

The fourth position wants to see a fundamental alternative harnessing of digital technology to serve humans. Here it is important to distinguish between commercial and non-commercial platforms. A genuine 'sharing economy' would not involve commercial transaction and the

commodification of goods or services, says Russell Belk (2014). Few non-commercial platform companies exist. As such, the term 'sharing economy', as applied to Uber or Airbnb, is a distortion of its essential meaning. Airbnb is not really an opportunity for ordinary people to temporarily capitalise on an under-used bedroom in their homes but an opportunity for commercial landlords and, in effect, unregistered hotels to access the travel market. In New York, for example, a report by Eric Schneiderman (2014) for the State Attorney General's Office found that the largest provider listed on Airbnb had 272 properties and just six per cent of providers accounted for 37 per cent of overall profits. Many on the left on both sides of the Atlantic, such as Erik Olin Wright (2015) and Paul Mason (2016), would like to see a genuine non-commercialised sharing economy with a 'Do It Yourself' approach to exchange. This approach would undermine capitalism and the commodification of goods and services, including labour. The issue for Mason is not whether apps will eradicate human labour. For Mason, apps *should* be used to eradicate human labour, leaving humans more time to be human. This post-work future is also championed by Tim Dunlop (2016). As with Mason, Dunlop argues that work should be left to technology. This post-capitalist society is a choice, Dunlop states, based on wanting *liberation not from the employment relationship but from work itself* through technology. It would require not the distribution of residual work and targeted welfare support but the radical redistribution of wealth created by digital technology as a universal basic income that covers economic needs to provide stability and support outside the wage system. To support his argument, Dunlop asserts that the crux of complaints about the platform economy is not the lack of a guarantee of a decent job but having no guarantee of a decent living. It is a long-term political project that is unashamedly ambitious and utopian, Dunlop admits.

The desirability of any of these four positions depends on the perceptions of technology in general, not just new digital technologies. The four positions also vary in their immediate feasibility. They also reveal how the perceived possibilities and problems associated with new technologies can cut across and fragment the political Right and Left, creating a range of potential policy responses towards the platform economy and companies such as Uber.

Concluding Remarks

Digital technologies have the capacity to shape the the production of goods and provision of services. In doing so, they can significantly shape the social organization of economic activity. Using Uber as a portal case for the platform economy, this chapter has focused on the digitalisation of workers. It outlined two accounts of such companies: the technophilia account eulogizing the emergence of new digital technologies as beneficial (mainly for consumers or users of platform services); and the techno-anxiety that the same technology creates problems (mainly for some service providers).

According to Uber, their app simply coordinates users and providers of transportation. However, the algorithmic management enabled by this app doesn't just coordinate the labour market interactions of users and providers, it also controls these interactions. Moreover, it controls the labour process of the providers. The digitalisation of work is Adam Smith on steroids: not only is work disaggregated by task and thereby cheapened, the workers providing these tasks experience intensified control and are intentionally disposable. Claims that providers are self-managing independent contractors are therefore spurious. Instead there is clear evidence that providers have an unstated employment relationship with Uber, and legal challenges to Uber not just for alleged unfair regulatory avoidance but also around the employment status of its drivers are not surprising.

The chapter also outlined how platform companies might develop, becoming either *normalised* through mainstreaming or *reinforcing* their practices. Which scenario plays out will be affected by policy responses. As the chapter suggests, these responses are underpinned by perceptions of technology in general as well as new digital technologies in particular, and the subsequent positions adopted towards the platform economy and companies such as Uber. It should be noted, however, that whilst the platform economy and companies such as Uber have gained much policy and media attention, the practices that they feature – the creation of tightly managed,

'non-standard' work – extends beyond the platform economy and is part of wider developments in the labour market (see, for example, Eurofound 2015).

The discussion in this chapter makes clear that, if there is something lastingly different and disruptive about the platform economy and companies such as Uber, technology alone will not shape the future of work. If technology is to offer progress, then what constitutes progress and how it might be achieved are not fixed. There are different and often competing visions of the future and it will be humans as users, providers, voters and regulators that will and need to make choices about that future. To repeat a phrase coined recently by tech commentator John Naughton (2017: 21): 'the technical is political'.

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Endnotes

¹ www.uber.com.

² Quoted in Doward (2017: 4).

³ Quoted in Henley (2017: 31).

⁴ <https://www.uber.com/legal/deactivation-policy/us-en/>

⁵ Quoted in De Stefano (2016: 4).

⁶ See Julia Tomassetti's (2016) excellent review and critique of the arguments underpinning this claim of difference.

⁷ Quoted in Dunlop (2016: 129).

⁸ Formerly what was called in the UK the National Minimum Wage.