# The Strains of Luxury

## *Labor in the Platform Economy. The Case of Uber Black in Oslo*

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# Summary

The so-called sharing economy is often framed as an adept system for taking advantage of underutilized assets and, through digital technology, establishing a community of strangers trusting, interacting and exchanging with each other. In this thesis, I explore one of the companies often associated with the sharing economy, Uber, investigating the work arrangements and working conditions of the people selling their labor power through the platform. Despite having to "pause" Uber Pop in late October 2017, Uber was able to continue to provide passengers transportation through Uber Black, Uber XXL and Uber Lux in Oslo. Based on observation of and interviews with 20 Uber Black drivers as well as an analysis of selected documents, I explore the following research questions: 1) How did Uber adjust its business model to the regulations of the Norwegian transportations sector? 2) How is the Uber Black drivers' labor organized? 3) How can the case of Uber Black in Oslo be understood as illustrating tendencies and tensions in the process of implementing information and communications technology (ICT) in the economy and work arrangements? My analysis is theoretically informed by Carlota Perez and the local research frontier on the platform economy, as well as a dialogue with Karl Polanyi and Gilles Deleuze.

Uber legalized its Norway operations by using limousine companies as intermediaries. These limousine companies own cars licensed for serving the luxury segment of the Norwegian passenger transportation sector and hire the drivers. Of the 20 drivers I have met, all have been male and all but two immigrants or the children of immigrants, most of whom having struggled to find stable and decent employment before becoming Uber drivers. The drivers usually get access to a car 12 hours six days per week, within which they themselves determine how much they want to work. Most drivers are paid on commission, but some receive a fixed hourly wage. Because of the general lack of customers in the Uber Black market in Oslo, this work arrangement is translated into long shifts and relatively low wages for the commission-paid drivers. Furthermore, I investigate how Uber employs the platform model to coordinate its market. By endowing the drivers with the freedom to choose their own hours, Uber simultaneously has to initiate measures for making the drivers supply their labor when and where they are needed. This problem is solved through the algorithmic management immanent in the platform model, comprising of three techniques: algorithmic task assignment, dynamic pricing and bilateral ratings. The work arrangement of Uber Black in Oslo transfers the risk of demand-side shock to the workers and creates unpredictable and

opaque working conditions. I argue that Uber's platform is not a mere technology and a neutral marketplace, but should rather be conceived as a privately owned market regulation – parallel to and competing with government regulations – and a form of control continuously adapting to fluctuation in the market, as well as an organizational principle embodying the logic of the age of information and communications technology.

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# 1 Introduction

When initiating its Norway operations in November 2014, the American transportation-cum-technology[1] company Uber launched two products: Uber Black, a transportation service with professional and licensed drivers in exclusive cars; and Uber Pop, where ordinary people could use their own personal cars to pick up and transport passengers for a fare. Uber Pop can be seen as Uber in its ideal form and is very similar to how Uber X operates in the US and many European cities. Uber Pop was initially a six-month trial project for "a few selected users"[2] (Uber, 2014), but was opened up for everyone shortly after. Uber later also launched Uber XXL, transportation with minibuses, and – in December 2017 – Uber Lux, a service with even more luxurious cars than Uber Black (Uber, 2017b).

Uber soon ran into trouble. Throughout 2016 and 2017, the police stopped and charged a total of 194 Uber Pop drivers for providing transportation services without having the license required by the Professional Transportation Act (2002). 138 drivers were fined, 94 lost their driver's license and 67 got their earnings confiscated (Braathen, 2017). In September 2017 Uber's Norwegian and Dutch – Uber B.V. – subsidiaries received a shared fine of NOK five million for the same violation as the drivers (Karlsen, 2017). The company accepted the fine (Barane, 2017), and on October 30th, Uber Pop was "put on pause" in Oslo, with a promise to return as soon as "modern" regulations were adopted (Uber, 2017c).

However, this was not the end of Uber in Norway. When Uber Pop was discontinued, Uber Black, XXL and Lux carried on. Organized through limousine companies providing licensed cars and drivers, the market for luxurious transportation provided Uber with a pocket of possibilities where its business model could proliferate.

[1] Uber consistently refers to itself as a "technology company" (Uber, no date, h). Being classified as a "technology company" has significant economic advantages: One does not have to pay value-added tax on the company level and it is possible to establish a global tax scheme called the "double Dutch sandwich" (see O'Keefe & Jones, 2015). However, a recent ruling from an EU court found that Uber does not meet the criteria for being the legal category of "technology companies" (Aleem, 2017; Curia, 2017).

[2] My translation [m.t].

## Technology, "uberization" and labor in the platform economy

According to economist Carlota Perez, technological revolutions bring with them a techno-economic paradigm introducing new principles for organizing production, through which the whole economy subsequently is transformed (2003, 2010). She argues that we currently are living through a revolution in information and communication technology (ICT), initiated by Intel's launch of the first commercially available microprocessor in 1971, which gave rise to the development of personal computers, software and the Internet (Perez, 2010: 189), today all embodied by the smartphone.

Uber is often framed as an example of the reorganization of the economy enabled by the ICT revolution (see Kenney & Zysman, 2016a; Krokan, 2018; NOU 2017:4; Prassl, 2018). Nick Srnicek (2017: 4) writes that ICT, data and the Internet is becoming an essential part of all industries of the economy, and thus a far more transformative force than the size of the tech industry suggests.[3] New devices and connecting infrastructures have furthermore made possible the emergence of business models operating with a level of flexibility "unheard of in the past", De Stefano remarks (2016: 4). These have given rise to characterizations such as "the sharing economy",[4] highlighting the new business models' commodification of "underused" assets (Botsman & Rogers, 2011; Stephany, 2015); "the gig economy", asserting the dissolution of jobs into separate tasks or "gigs" (De Stefano, 2016; Prassl, 2018); "the on-demand economy", characterizing the instant delivery of goods and services (Berg, 2015); and "the reputation economy", emphasizing the use of bilateral rating systems (Gandini, 2016, Kinstler, 2018).

Kenney and Zysman (2017) argue that these labels conflate different trends. The "gig economy", for example, illustrates a tendency that was in motion before the digitalization of the economy and labor market,[5] and "the on-demand economy" describes solely the instant

[3] In the US, the tech sector employs only 2,5 percent of the labor force and in the UK there are three times as many people employed in manufacturing than in technology (Srnicek, 2017: 4). However, a look at Forbes' list of the world's most valuable businesses provides another story, as six of the top ten companies are classified as "technology" companies (Forbes, no date).
[4] The Norwegian translation "delingsøkonomi" was listed as one of "new words" of 2014 (Språkrådet, 2014).
[5] They note that in developing countries, significant shares of the labor force work in a labor market characterized by "gigs" in absence of digital technology (Kenney & Zysman, 2017: 13).

delivery of goods and services rather than a broader economic reorganization. However, Uber is a phenomenon where many of these tendencies converge: Enabled by ICT, Uber allocates passengers' requests to a labor force of usually self-employed drivers earning commissions on every trip they complete, and assess drivers' and passengers' experiences through a bilateral rating system. As many of the characteristics of the "new economy" manifest themselves in Uber, scholars have described this process as an "uberization" (Davis, 2016; Fleming, 2017 Nurvala, 2015).

Enter the platform. As a digital infrastructure within which users can communicate, interact and exchange goods and services, the platform model embodies the tendencies discussed above (Kenney & Zysman, 2016a, 2016b, 2017; Srnicek, 2017). Platforms are heterogeneous, and Jesnes et al. (2016: 49) categorize platforms based on a continuum of the exercise of control – strong to weak – and whether they convey labor or capital.[6] Srnicek (2017: 49) proposes a typology of five different forms of platforms: Advertising platforms such as Google and Facebook, selling spaces for targeted advertisement based on the extraction and analysis of their users' data; cloud platforms such as Amazon Web Services, providing a software for logistics and data analysis to customers on a subscription basis; industrial platforms enable the transformation of traditional industry into a digitally interconnected process, and has been developed by for example GE and Siemens;[7] product platforms, such as Spotify or Rolls Royce's reorientation from selling to renting out plane engines, turning goods into a service and collecting rent; and lean platforms – for example Uber or Airbnb –, often referred to as "sharing economy", selling goods or services they themselves do not own but that rather are provided by their users.

What Kenney and Zysman (2016b) term labor-market platforms, of which Uber is an illustrative example, can be seen as a subspecies of Srnicek's lean platforms. As argued by Kenney and Zysman (2016a: 66), labor-market platforms raise an important question: What happens to labor when the labor process is organized through platforms? While the introduction of digital technology into the world of work often is framed as a process whereby human labor is replaced by technology (Brynjolfsson & McAfee, 2014; Frey &

[6] They characterize Uber as exercising strong control and a platform where individuals sell both their capital and labor power – i.e. use their private cars (in the case of Uber Pop and Uber X in the US) to sell transportation to passengers through the Uber platform.
[7] In Norway, Cognite develops such a platform for the oil industry (Løvås, 2018).

Osborne, 2013; World Economic Forum, 2016), Uber and other labor-market platforms provide an interesting case for investigating how technological work arrangements transform the labor process itself: Even though Uber is investing heavily in autonomous vehicles (Monaghan, 2018), the company's business model is still fundamentally based on the manual labor of people driving the cars.

While labor-market platforms constitute a marginal phenomenon, both globally (Farrell & Grieg, 2017; Zysman & Kenney, 2017: 332) and in Norway (Alsos et al., 2017), the work arrangements enabled by the platform are hypothesized to spread to other spheres of the economy and traditional forms of employment, blurring the lines between digital platforms and other spheres of the economy (Alsos et al., 2017: 64; Jesnes et al., 2016; Srnicek, 2017). Hence, an analysis of the organizing principles of the labor-market platforms might give some indication of what is to come.

## Research questions and thesis structure

In this thesis, I study the platform economy from the perspective of labor and explore Kenney and Zysman's question through observation of and interviews with 20 Uber Black drivers in Oslo, as well as an analysis of documents and research articles published or commissioned by Uber. While my overall project is guided by an endeavor to explore what Uber Black in Oslo can reveal about the principles undergirding the new business models and forms of work emerging from the diffusion of the ICT revolution, this case simultaneously provides an opportunity to investigate how the company was able to establish its business model within the context of the highly regulated Norwegian passenger transportation sector. My primary concerns are the work arrangements enforced by the platform as an organizational principle and the forms of control immanent in the platform model.[8]

In the remainder of this thesis, I will investigate the following research questions:

1) How did Uber adjust its business model to the regulations of the Norwegian passenger transportations sector?

2) How is the Uber Black drivers' labor organized?

[8] I will not evaluate whether it is "better" to be an Uber driver than to drive traditional taxis. As Deleuze writes: "It's not a question of asking whether the old or new system is harsher or more bearable, because there's a conflict in each between the ways they free us and enslave us" (1995b: 178).

3) How can the case of Uber Black in Oslo be understood as illustrating tendencies and tensions in the process of implementing ICT in the economy and work arrangements?

To date, there is meager research on the actual working conditions, working hours and wages of people working in the platform economy (Cheng, 2016; Dølvik & Jesnes, 2018: 54). My thesis contributes to this literature by offering an empirical investigation of the work of Uber Black drivers in Oslo as a case of labor in the platform economy. Based on my findings, I propose a conceptualization of platforms as privately owned market regulations and as a form of control.

In chapter two, I situate Uber in the research literature on the platform economy and the company's economic-legal context, globally and in Norway. In chapter three, I elaborate the context and concepts I find fruitful for framing the processes of which Uber can be seen as a constituent and conceptualizing the platform and the labor therein. In chapter four, I present my methodological approach to studying Uber Black in Oslo. My analysis is divided into three parts corresponding to the micro, meso and macro level of the case. In chapter five, I direct my attention to the particular work arrangement emerging from Uber's adjustment of its business model to the regulations of the Norwegian passenger transportation market, as well as the work and working conditions of the drivers. In chapter six, I analyze the platform as a technology for organizing the drivers' labor and coordinating the market. In chapter seven, I initiate a dialogue with Karl Polanyi, Gilles Deleuze and Carlota Perez to extend the analysis and discuss what Uber Black in Oslo can tell us about the ICT revolution and the platform economy more generally.

# 2 Situating Uber

## The emergence of the sharing economy

The propagation of the Internet enabled new online markets where consumers who do not know each other and do not have to meet in person can exchange goods and services (Kenney & Zysman, 2017: 11–2). The so-called sharing economy[9] emerged around 2008 (Schor & Attwood-Charles, 2017), and Schor and Fitzmaurice (2015) argue that the sharing economy can be seen as a development of online marketplaces such as Ebay and Craigslist. The growth of these markets as well as the sharing economy in general, Schor and Fitzmaurice (2015) attribute to the digital technologies, dramatically decreasing the transaction costs of exchanging goods and services among strangers. Dellarocas argues that reputation systems where the users give each other feedback or ratings for everyone to see, first employed by Ebay, are an essential feature of these markets, as "a technology for building trust in electronic markets" by disclosing the users' experiences with each other (2003: 1407–8).[10]

The early "prophets" of the sharing economy saw these businesses as forming a new "community" within an otherwise impersonal and brutal economy. Here, everyone is friends and "what's mine is yours", as an influential book by Rachel Botsman and Roo Rogers is titled (2011).[11] They term this form of consumer behavior "collaborative consumption", the essence of which being that

> people are sharing again with their community – be it an office, a neighborhood, an apartment building, a school or a Facebook network. But the sharing and collaboration are happening in ways and at a scale never before possible, creating a culture and economy of *what's mine is yours*. (Botsman & Rogers, 2011: xv, emphases in original)

They write that individuals participating in this "collaborative consumption" are "microentrepreneurs", sharing with each other in a community where people are defined by their reputation (Botsman & Rogers, 2011: xviiiff; see also Gasnky, 2010). In this narrative,

[9] As I will show in this chapter, the term "sharing economy" is both problematic and ambiguous. For readability, I abstain for using quotation marks when referring to the concept. The reader should nonetheless be aware of the rhetorical nature of the designation.
[10] Such markets are also conceptualized as two- or multi-sided markets (see Krokan, 2018; Rochet & Triole, 2006: 645).
[11] Murillo et al. characterize this book as "the sharing economy manifesto" (2017: 68).

the sharing economy is a network of digitally connected strangers in an environment of trust enabling interaction and transactions *as if* they were friends, a return to gemeinschaft and the renaissance of an ancient form of sociality. New technology has enabled a form of consumption – "sharing" – traditionally exclusive to close-knit communities to function also among strangers Schor and Fitzmaurice write (2015). Pais and Provasi (2015) argue that the growth of the sharing economy cannot solely be ascribed to new technologies of facilitating transactions, but that its success arises from the fact that they are filling the social vacuum left by failures of markets and states. In their view, the sharing economy can be understood as a step towards re-embedding the economy within social relations (see also Nelms et al., 2018).

*A contested concept and Janus-faced phenomenon*

Meanwhile, the notion of the sharing economy is contested. Among social scientists studying the sharing economy, much attention is given to what can and cannot be characterized as "sharing" (see Acquier et al., 2017; Belk, 2010, 2014a, 2014b, Frenken & Schor, 2017; Murillo et al., 2017; Schor, 2017). The central question is whether it is possible to describe relations of economic exchange as "sharing" or not. Some researchers develop conceptualizations of what the sharing economy "really" is (see Bardhi & Eckhardt, 2012; Belk, 2014a, 2014b; Frenken & Schor, 2017; Habibi et al., 2017), while others use the sharing economy as a catch-all category for all the different forms of exchange mediated by digital platform (see Acquirer et al., 2017; Muñoz & Cohen, 2017) or treat it as a floating signifier (Nadeem, 2015; Codagnone et al., 2016). Other scholars discard the concept altogether (see Alsos et al., 2017; Kenney & Zysman, 2017; Scholz, 2017; Slee, 2015).

The sharing economy is both for-profit economic transaction and at the same time framed as alternatives to this economic model. This apparent paradox reveals the tensions between marketing strategies and realities of the workers (see Calo & Rosenblat, 2017; Ravenelle, 2017; Richardson, 2015; Rosenblat & Stark, 2016). Ravenelle (2017) studies workers in the sharing economy and finds that while platforms such as Airbnb and Uber market themselves with the romanticism of entrepreneurialism, the reality of workers in one of insecurity and vulnerability, echoing Belk's (2014a) notion of "pseudo-sharing". The workers say that their primary motivation is money, not buying into the rhetoric of "community" and

"entrepreneurship".[12]

The Janus face of the sharing economy illustrates the importance of the stories these platforms tell about themselves and the concepts used to describe them (Richardson, 2017). Boltanski and Chiapello ([1999]2018: 27) argue that contemporary capitalism uses anti-capitalist criticism to find new avenues for further accumulation that incorporates the critiques and thus moral support by being a "better" form of capitalism. In light of this argument, the sharing economy constitutes the perfect answer to criticism of the consumer society, impersonal economic relations and capitalisms erosion "community". The anti-capitalist narrative used by the platforms to color their business model as more social forms of consumption and market opportunities for the assertive "microentrepreneur", function to create public acceptance and attract customers and sellers.

## The epistemological break: From "sharing economy" to platform economy

While the notion of the sharing economy has become synonymous with businesses such as Uber, the concept is both problematic and analytically ambiguous. Kenney and Zysman argue that businesses such as Uber, Airbnb and Facebook do not deserve the label "sharing economy", because they "monetize human effort and consumer assets" rather than facilitate "sharing" (2016a: 62). Stuvøy (2018: 276–7) describes the label "sharing economy" as constructing a moral story that flattens stratified relations. Second, because the sharing economy is often defined as the exchange of idle or underutilized assets on a market (see Botsman and Rogers, 2011; Krokan, 2018; NOU 2017:4; Stephany, 2015), an ambiguity arises from the fact that what "counts" as sharing economy depends on how the services are used. In the case of Uber, it is "sharing" if the driver has a free seat in her car and picks up passengers going where she was going already, but if she drives the passengers to a destination outside her initial trajectory – i.e. having Uber as her job –, her assets are no longer "underutilized" and she leaves the sphere of "sharing". For these reasons of conceptual unclarity, I will employ the concept "platform economy" to describe the features of the economic system based on the business model in question and "platform" to open up and investigate the particularities of conditions under which the Uber Black drivers in Oslo provide their labor.

[12] Bardhi and Eckhardt (2012) find the same approach among Zipcar users.

At their most general, Srnicek understands platforms as "digital infrastructures that enable two or more groups to interact" (Srnicek, 2017: 43). Alsos et al. (2017: 17) conceptualize the platform as 1) an intermediary that conveys between buyer and seller through a digital infrastructure, 2) connecting complementary actors – suppliers and customers – 3) who thus are able to exchange goods and services. With the concept of platform economy, the third party establishing and controlling the infrastructure where transactions can be made is asserted as the crucial element in these business models. Srnicek's conceptualization diverges somewhat from that of Alsos et al., as he highlights the platforms' ability to and practice of recording the activities that occur on them. This is a significant advantage compared with traditional business models, Srnicek argues (2017: 44): The platform does not only mediate between complementary actors, but records their every move, and by doing so is able to both use the data collected to further coordinate the users, and sell the data to advertisers and other buyers (Srnicek, 2017: 66). Following in a similar vein as Srnicek, Kenney and Zysman understand platforms as "digital arrangements whose algorithms serve to organize and structure economic and social activity" (2016a: 65) and an element in a broader story of reorganization of services and labor made possible by the development of ICT (Kenney & Zysman, 2016b: 3).

## Uber: The black sheep of the platform economy

In this thesis, I study one such platform, Uber. Founded as UberCab in 2009 and officially launched in 2011 (Uber, no date, j), the company has become a global operation (Uber, no date, b). While Uber is often understood as a part of the sharing economy (NOU 2017:4), the company itself does not use the label to describe its operations. Uber is sometimes referred to as a "ride-hailing" company (Bellafante, 2018), but presents itself as a technology company simply providing drivers and passengers with the means of earning money and moving around (Curia, 2017; Uber, no date, h). As a global company offering many different mobility services – from food delivery and transportation in someone's private car or, in some countries, bike or rickshaw, through shipping, licensed drivers in luxury cars and boat transportation, to venturing into autonomous vehicles and even tinkering with air transportation (Uber, no date, m) – Uber is many different things in different countries.

The core of the company's operations, however, is passenger transportation organized through its mobile application. First[13], both drivers and passengers have to create a user account, providing Uber with information and access to the GPS on their phones. A passenger can then choose her desired product – Uber X, Uber Boat, Uber XXL, et cetera – and enter her destination. Before ordering, the passenger can see Uber's estimated price of the trip. The platform finds her location and sends her request to nearby drivers, who can see the passenger's name and location. The first driver to accept the request drives to the passenger, picks her up and takes her to her destination. When a driver accepts the request, the passenger is notified and can see a picture of the driver, name and the number on the license plate, as well as estimated time of arrival. The driver receives turn-by-turn directions from the application, and when they reach the destination, the driver presses the "finish trip" button on the application, the fare is instantly withdrawn from the passenger's credit card and she receives a receipt via email. The driver can also get a request for a new trip while still driving passengers to their destination. The driver then has to give the passenger a rating from one to five stars, while the passenger's rating of the driver is voluntary. Neither drivers nor passengers can see specific ratings, but after having received five ratings, the average of all these ratings is calculated and visible on the Uber application for drivers when they receive a request and for passengers when a driver has accepted their request. In Norway, the fare paid by the passenger for the ride is then transferred to Uber's Dutch subsidiary, Uber B.V., who takes a cut of the payment and sends the rest back to Norway, where the remaining money is paid to the driver as monthly salary.

*Here comes trouble*

Uber embodies the Silicon Valley motto of "move fast and break things" (Taplin, 2017) and ran into trouble from the start. All over the world, taxi drivers and companies argued that Uber breaks the laws and challenges competition on equal terms (Mulholland, 2014). As many other sharing economy companies, Uber holds that the drivers are independent contractors and not employees. Prassl (2018) characterizes this practice as "bogus self-employment". In the case of Uber Pop in Norway, Hotvedt (2016) argues that the fact that the drivers in practice have to provide their personal labor power, the significant control exercised by Uber over the labor process, the drivers' need for protection and their

[13] This overview is based on my fieldwork and a help-site from Uber (no date, e).

dependency on Uber together suggest that the relationship between Uber and the Uber Pop drivers could contain an employer-employee relationship.[14]

2017 proved to be a particularly turbulent year for Uber. CEO Travis Kalanick first sparked controversy when he was appointed to US president Donald Trump's Strategy and Policy Forum in December 2016 (Isaac, 2017b). Shortly after, Uber was alleged to have tried to exploit a taxi driver strike at JFK airport protesting Trump's executive order barring entry to the US for people from seven predominantly Muslim countries (Lutz, 2017). Later, Uber was sued by Waymo – Alphabet's self-driving car company – for stealing technology. Simultaneously a company culture tainted by widespread sexual harassment and misogyny was unveiled. Kalanick resigned in June 2017 (Hawkins, 2017). He was replaced by Dara Khosrowshahi and Uber initiated a process called "180 days of change" to remedy its corporate culture and public reputation (see Uber, no date, a).

*Uber's economic conditions. Money and maneuverability*

Uber is now the highest valued privately owned – i.e. not listed on the stock market – company in the world (King & Newcomer, 2018). While "unicorns" – "startup" companies valued over USD one billion – have become increasingly prevalent in the tech sector,[15] there has recently emerged a new segment of privately held businesses valued at more than USD 10 billion, "decacorns" (Hartmans, 2017). Among these, Uber is unrivaled, reaching a USD 62.5 billion valuation in 2016 (Kaminska, 2016). Despite the rough year, Uber received a USD 7.7 billion investment form Softbank Group in late December 2017,[16] after which Uber's valuation was recalculated to USD 48 billion, down from USD 69 billion in August 2017 (O'Kane, 2017). In August 2018, Uber's valuation had increased to a new high of USD 72 billion (Price, 2018). However, Uber has recently signaled that the company is moving towards offering its stocks to the public, and a proposal for its initial public offering has

[14] While the California Supreme Court ruled that the burden to prove that workers are independent contractors instead of employees now rests on the employer in May 2018, this is unlikely to affect Uber's US operation in near future, as a federal court in Philadelphia in April 2018 ruled that Uber drivers are independent contractors and not employees (Melley & Rugaber, 2018). In Europe, a British employment tribunal in November 2017 upheld its decision from 2016 that Uber's drivers are not self-employed and entitled to minimum wage and paid time off after Uber appealed the first verdict (Rao, 2017; Prassl, 2018: 98). Uber, however, appealed again and the ruling has not yet been implemented (Snaith, 2018).

[15] In 2013, there were 39 "unicorns", in 2017, there were 267 (Kenney & Zysman, 2017: 26).

[16] According to different estimates, Softbank Group bought 14, 17 or 20 percent of Uber's shares from existing shareholders (Roof, 2017; O'Kane, 2017; BBC, 2018).

valued the company at USD 120 billion, almost twice as high as Uber's last valuation (Hoffman et al., 2018).

However, these fantastical valuations do not necessarily mean traditional economic success. Kenney and Zysman (2017: 26) note that almost no "unicorns" are profitable. As these companies are privately held and primarily financed by venture capital,[17] they can lose money on their operations while still keeping afloat (Kenney & Zysman, 2017). Despite its extraordinary valuation and having secured USD 22.2 billion in investments over 20 funding rounds (Crunchbase.com, no date), Uber still has failed to show a profit (Somerville, 2018). In May 2018, Uber released[18] a statement announcing a USD 2.5 billion profit from the first three months of 2018. According to the financials provided by Uber, this profit includes sales of their Southeast Asian and Russian operations to the local companies Grab and Yandex respectively. Without these sales, however, Uber showed a USD 312 million loss before taxes, interest, and other expenses. Compared with the same period in 2017, the company has cut their losses in half, but Uber has stated that the company does not expect these losses to disappear anytime soon. In August 2018, Uber reported a second-quarter loss of USD 891 million and slowing revenue growth. Since founding, Uber has used over USD 11 billions of its investors' money, but the numbers from August 2018 indicated that the company still has USD 7.3 billion in cash on hand (Newcomer, 2018a, 2018b). At similar stages in their evolution, other technology companies such as Google and Facebook were able to show a profit. Despite declining rates, however, Uber still grows (King & Newcomer, 2018).

Kenney and Zysman note that new technologies – today ICT – enable new business models and business strategies, "provide entrepreneurs with openings to reorganize or, to put it in the current vernacular, 'disrupt' existing businesses", which makes them attractive objects of investment (2017: 6). Today, we see the highest rates of venture capital investing since the dot-com boom (Verhage, 2018), and a period characterized by cheap and plentiful money

[17] Venture capital is a form of financing provided to emerging businesses in need of capital by investors, investment banks, financial institutions or specialized venture capital firms. Investors often receive some ownership of the business in which they invest venture capital and can thus influence decisions. They will see a return on their money when the company gets listed on the stock market, is acquired by another company, or if the investor sells her shares to another investor (Mason, 2009).

[18] As a privately owned company, Uber does not have to publish all its finances. The company can reveal what they want, but the full details of the company's economic conditions are therefore not disclosed (King & Newcomer, 2018).

used by "startups" as a "performance enhancing drug for company acceleration" Rothman argues (2016). Kenney and Zysman write:

> The fastest-growing firms may operate at a deficit for long periods prior to becoming profitable and, in the greatest successes, fabulously profitable. During the initial period, the goal is growth, not profit. The ultimate goal, of course, is to surpass any incumbents (usually from the previous technology regime) and establish a dominant position, if not a monopoly or near-monopoly position. (Kenney & Zysman, 2017: 7)

Uber is a fitting illustration of this tendency: Based on simple and easily replicable technology, Uber has to attract drivers and customers to its platform at the expense of other similar services, such as Lyft, traditional taxi and public transport. According to Kenney and Zysman, Uber "cannot be considered a high-technology firm" (2017: 28): The company does not compete by providing superior technology, but rather by providing lower fares, undercutting taxis and other competitors, which simultaneously decreases the wages for the drivers. Horan (2017) even argues that it will be impossible for Uber to grow into profitability because there are no diminishing costs of transporting more passengers. Kaminska writes that Uber is cheap, not because their business model is superior to traditional taxis, but "because investors have failed to recognise that the source of its greatest innovation is and always has been cheap money" (2016). We then arrive at a somewhat paradoxical situation where Uber's lack of traditional economic success is providing the company with an immense maneuverability: Without any profit requirements and billions of dollars in venture capital investments, the company can initiate practices that otherwise would be impossible.

## Uber in Norway: From piracy to luxury

Uber entered the transportation market in Oslo, the only city in Norway where Uber operates, on November 19th 2014 (Moe & Grønning, 2014). While Uber Black was the focus of their release, Uber also started a "trial project" offering the product Uber Pop (Uber, 2014), which rapidly gained much attention. Everyone with a driver's license, a less than ten-year-old car and good repute could sign up to become Uber Pop. Uber took a 20 to 30 percent cut of the fare and the drivers received the remaining money as a weekly wage. The drivers were classified as self-employed, had to set up their own sole proprietorship and pay their own taxes, fuel, insurance and toll charges (Blaker, 2016; Hotvedt, 2016).

Even though there is a case to be made that the Uber Pop contracts could entail an employer-employee relationship (see Hotvedt, 2016), it was not misclassification that led to Uber's problem in Norway, but the fact that the Uber Pop drivers performed professional transportation without the licenses required by the Processional Transportation Act (2002: § 9; see also Borgarting Court of Appeals, 2016). Following the sentencing of 138 Uber Pop drivers as well as Uber Norway and Uber B.V., Uber withdrew Uber Pop on October 30th 2017. According to then head of Uber Norway, Carl Edvard Endresen,[19] this decision was not due to the fines, but because the "legislation is unclear"[20] (NTB, 2017b).[21]

As I will elaborate in chapter five, the reason why Uber still can provide Uber Black, XXL and Lux in Oslo, is that the company has been able to secure agreements with limousine companies who own the cars and have limousine service operator licenses [selskapsvognløyve] for Uber Black and Uber Lux, and touring vehicle licenses [turvognløyve] for Uber XXL. In this thesis, I study only Uber Black. Uber Black is not exclusive to Norway but provided in most cities the company operate (Uber, no date, b). The price of an Uber Black ride in Oslo is calculated by adding the base fee (NOK 65.00) to the per-minute fee (NOK 6.00) and the per-kilometer fee (NOK 22.00). There is a minimum price of NOK 100.00. In addition, if the passenger cancels the booking more than two minutes after requesting a ride, she will be charged a cancelation fee of NOK 100.00. (Uber, no date, d).[22]

*The Norwegian taxi market: Regulation and its discontent*

While the taxi market is often seen as a part of public transport in Norway, the sector does not receive subsidies and is not publicly owned (Jensen et al., 2014: 55), but is regulated by the Professional Transportation Act (2002)[23] and the licenses arranged through an array of measures, spread across many authorities. Aarhaug (2014) describes three different

[19] When Endresen resigned in September 2018, Uber decided to not employ a new head of Uber Norway. Uber's operations in all the Nordic countries are directed from Finland (Oterholm, 2018).
[20] M.t.
[21] Despite having to discontinue Uber Pop in late October, 2017 turned out to be Uber Norway's best year to date, with a NOK 1.28 million profit before taxes and a 46 percent increase in revenues from 2016 – from NOK 11.1 to 16.2 million (Flatebakken & Helgaker, 2018).
[22] As we will see in chapter six, however, a key feature of Uber's platform is its ability to adjust the fares to changes in supply and demand.
[23] As well as regional regulations, such as Regulation on the Professional Transportation Act, Oslo (2013).

regulations of a taxi market: Quantitative: restricting the number of taxi licenses, qualitative: restricting market entry through criteria for attaining taxi licenses, and economic: determining the fare. The Professional Transportation Act requires that everyone "intending to operate passenger transport services by motor vehicle for reward must have a licence to do so" (2002: § 4, see also § 9). There are different types of licenses for passenger transportation in Norway, among which taxi license is the most common. As other licenses, taxi licenses are means tested and applicants generally have to wait years to attain a license (Government.no, 2018a). In addition, every driver has to have a professional license, confirming the satisfactory health status and repute of the driver (Government.no, 2018b; Professional Transportation Act, 2002: § 37). The county municipalities stipulate the number of and criteria for attaining licenses, the competition authority determines maximum prices, the police issue professional licenses, and the Ministry of Transport and Communications has the overall responsibility for the regulation of the market (Bekken, 2003; Egeland et al., 2009: 35). The supply of taxis in Norway is mainly determined by the number of issued taxi licenses, regulating both entry to and volume of the market (Longa et al., 2010: 13), creating local variations in the regulation of the taxi industry (Aarhaug, 2014: 8).

On the supply side, this market comprises of two actors: Taxi owners and taxi drivers. The taxi owners hold a taxi license for one taxi car and are self-employed but organized through dispatching centers, a collective of taxi owners[24] through which trips are ordered, rides distributed and payment collected. For these services, the dispatching centers take a fee (Jensen et al., 2014: 55). The license holders in Oslo have a duty to drive as much as the dispatching centers dictate (Regulation on the Professional Transportation Act, Oslo, 2013: § 18, 2; see also Regulation on the Professional Transportation Act, 2003: § 1f, § 47). The taxi drivers are employed by the taxi owners. They have to have a professional license but use the car and taxi license of the taxi owner. According to Jensen et al., there are often personal relations between the taxi drivers and the taxi owners (2014: 55). Most taxi drivers are paid on commission, many are immigrants with meager work experience, particularly in the big cities. There is a collective agreement for the sector, but few use it (Jensen et al., 2014: 55).

For many years, deregulation of the Norwegian transportation market has been proposed and discussed, in particular repealing the means testing of taxi licenses and price regulation

[24] According to Jensen et al., there have emerged some commercial dispatching centers as well (2014: 55).

(Bekken, 2003), which have been opposed on increasingly explicit grounds of creating more competition in the industry (Longva et al., 2010). The Competition Authority, for example, has argued that lifting the price regulations and making it easier to both attain and lose the taxi license – if quality requirements are not met –, will create better and more competitive markets, while also rendering the industry more dependent on adopting new and potentially efficiency increasing technology (The Competition Authority, 2015).[25]

In 2014, there were 6500 license holders and 8500 taxi licenses in Norway, with a total of 15 700 people working within the sector, a substantial proportion of whom having taxi driving as a part-time job (Jensen et al., 2014: 55). The ratio of taxis per inhabitant has historically been very high in Oslo, and in 2003, Bekken notes, the utilization was good compared to other cities (Bekken, 2003). In 2015, however, while Oslo is the county in Norway where taxis drove the most kilometers, only 48 percent of these were with passengers in the car – second least of all counties in Norway after Akershus (Oslo Economics, 2017: 14). Today, there are 1780 taxi licenses in Oslo (Riaz, 2016).

For consumers, poor service and the drivers' lack of knowledge of Norwegian language and geography have been sources of tensions and discontent with the taxi industry (Longva et al., 2010: 34). Drivers, on the other hand, have expressed frustration due to over-establishment in some markets and the following increased competition, which necessitate longer workdays for securing a sustainable income. 20 years ago, Jensen et al. (2014: 56–7) note, it was usual for three drivers to keep one car in 24 hours' service – in 2014, however, two drivers often share one car, working 12-hour shifts each. Within this context, Uber has been framed as a solution to the challenges faced by the Norwegian taxi industry. For some commentators, the Norwegian taxi industry is a prime example of expensive inefficiency, and see Uber Pop as a much-needed "disruption" (see Lund, 2017; Nordbø, 2017; Rolness, 2018; The Consumer Council, 2015; Sørgaard, 2018).[26]

[25] In 2000, the taxi fares were deregulated in a number of Norwegian cities, leading to increased prices. But, Bekken argued in 2003, the taxi fares in Norway was not unusually high compared to other countries. In the counties where the maximum price restriction was lifted, there has also been an increase in the number of taxi licenses. This has, however, not lead to a decline in the fare (Longa et al., 2010).

[26] In the spring of 2018, a new transportation platform emerged in Oslo, claiming to have "cracked the Uber code" (Lorentzen & Bach, 2018), called "Prai". The platform makes it possible for licensed taxi holders and drivers connected to a dispatching center to receive trip requests from passengers through Prai's mobile application. Prai argues it is no more than a technology company and a neutral mediator

In a reasoned opinion from 2017, The EFTA Surveillance Authority (2017) argued that Norway, by restricting entry to the taxi market by means testing the number of available taxi licenses, "has failed to fulfill its obligations under Article 31(1) of the EEA Agreement", i.e. that "there shall be no restrictions on the freedom of establishment of nationals of an EC Member State or an EFTA State in the territory of any other of these States" (EEA Agreement, 2016: § 31 (1)). After a number of postponements, the Ministry of Transport and Communications answered by acknowledging that "the taxi market today does not work satisfactorily in all parts of the country" and agreeing "that the numerical limitation of licences included in the current legislation constitute [sic] a restriction on new operators who wishes [sic] to access the taxi market" (2017). On October 1st 2018, the Ministry of Transport and Communications (2018) published a consultation memorandum proposing, among other things, the lifting of the numerical restrictions on taxi licenses, with an explicit aim of creating more competitive markets and facilitate new business models based on digital technology.[27]

## The Norwegian model, innovation and Uber as the future

According to Alsos et al., there were between 30 and 40 labor-market platforms in Norway in 2017, and that between 10 000 and 30 000 people have performed paid labor for a platform in the last 12 months (2017: 52–60).[28] Finn småjobber is the platform where most people supplied their labor – with 2000 registered service providers –, but they find evidence of high turnover and that most service providers have few assignments. Uber was then the second largest labor-market platform, with 1298 Uber Pop drivers in 2016 (Alsos et al., 2017: 55–6). When Uber Pop was discontinued in 2017, Uber claimed to have more than 280 000 registered passengers in Norway (Uber, 2017c). The labor-market platforms in the Nordic

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between authorized drivers and passengers. In a court case against the company, however, Oslo Municipality argued that Prai is an application for organizing requests and not a mere digitalization of hailing a taxi on the street, in practice functioning as a dispatching center, which the company does not have the authorization to be. The court added that Prai exercises independent control over the drivers by "firing" drivers whose "star rating" falls below Prai's threshold, agreeing with Oslo Municipality and granting them the right to ban taxi license holders from using Prai (Borgarting Court of Appeals, 2018). Prai stated that the company will appeal the decision to the Supreme Court (Hovland, 2018).

[27] I discuss the proposal for new regulations of the passenger transportation sector in chapter seven.

[28] Alsos et al. (2017: 54) write that their numbers are similar to those found in related studies from Sweden (SOU 2017: 24) and Denmark (Ilsøe & Madsen, 2017).

countries have primarily been established in sectors of the economy characterized by low wages, high proportion of workers from ethnic minorities and few skill-requirements (Dølvik & Jesnes, 2018: 54). Common features of all labor-market platforms are the loose form of employment, hiring workers either as independent contractors, freelancers, subcontractor or on marginal part-time contracts, Alsos et al. (2017: 70) argue, but add that such contracts are not unusual in the industries these platforms operate. These platforms offer – among other services – cleaning, transportation of goods as well as people, food delivery[29] and dog sitting (Alsos et al., 2017: 101), and can be seen as a commodification of tasks traditionally constituent of keeping a household.

The Nordic labor markets, often referred to as the "Nordic model", are characterized by strong and active states regulating the labor market in close collaboration with the social partners through a combination of laws and collective agreements, coordinated wage determination, high levels of employment and unionization as well as universalized welfare programs (Andersen et al., 2014; Dølvik, 2013).[30] The "standard employment relationship" is the norm and general rule in Norway, and although there is a tenuous tendency of increased outsourcing and use of subcontractors (Dølvik & Jesnes, 2018: 45), the share of "non-standard" forms of employment such as marginal part-time employment and self-employment have not changed over the last 15 years (Nergaard, 2016).

In this context, the "gigification" of work enabled partially by the emergence of digital platforms represents a potential divergence from the principles at the basis of the Norwegian model. The platform companies often present themselves as pure technology providers,[31] simply "facilitating" the economic exchange of independent agents, without any responsibilities to employ the service providers (Dølvik & Jesnes, 2018: 49–50). While some studies predict the sharing economy to grow substantially over the next decade (Pedersen et al., 2016), the estimates of the overall size of the labor-market platform workforce in the

[29] Interestingly, a significant proportion of the cyclists working for the food delivery platform Foodora has become members of the Norwegian Transport Workers' Union and is now demanding a collective agreement (Hasås, 2018).

[30] While there are important differences between the Nordic countries (see Andersen et al., 2014: 32), the general features sketched out above are more or less shared by all the countries. As my analysis is concerned with the case of Uber in Norway, I will in the following refer to this as the Norwegian model.

[31] According to Dølvik and Jesnes, most platforms in Norway are registered as technology companies (2018: 46).

Nordic countries indicate that this is still a rather limited phenomenon. The platform economy spread rapidly throughout the Nordic countries (Dølvik & Jesnes, 2018: 49) but the growth now seems to have abated (Alsos et al., 2017: 64).

Nonetheless, the view that platforms such as Uber constitute the future is prevalent. Uber's own economists, which I will return to in chapter six, argue that the flexible working conditions of, among others, Uber drivers, are going to become more common (Hall et al.,2017: 7; Chen et al., 2017: 41). This view has also been endorsed by some social scientists (see Bardhi & Eckhardt, 2012: 881; Schor & Fitzmaurice, 2015). There have been few political initiatives for regulating the platform economy, and the Nordic governments have generally expressed a view of the development as a potential source of growth, new jobs and "innovation". Norway's prime minister, Erna Solberg, for example, argued that while "we have a job to do when it comes to regulation", it is not possible to "ban the future"[32] (Haugan, 2016a). Solberg's understanding is to a large extent mirrored in the Norwegian Official Report *The sharing economy – possibilities and challenges*,[33] whose suggested measures in face of these new businesses are to establish a regulatory framework in which the sharing economy can proliferate (NOU 2017:4: 21–23). Former head of the Confederation of Norwegian Enterprise, Kristin Skogen Lund, argued in 2016 that "these innovations will come, whether we like it or not, and these forces are stronger than politics"[34] (Haugan, 2016b). However, while being reluctant to intervene in a phenomenon whose further development cannot be predicted,[35] the Nordic governments have acknowledged that it might be necessary to do so in the future (Dølvik & Jesnes, 2018: 63).

Hence, in this thesis, I explore the case of Uber Black in Oslo to investigate an aspect seldom articulated in the discourses of "innovation" and sharing economy: The labor in the platform economy.

[32] M.t.
[33] See Taylor et al. (2017) for a similar report from the UK.
[34] M.t.
[35] To some degree, this can be seen as a divergence from the tradition of the Nordic models, where the states have taken an active role in directing the development of new industries (Andersen et al., 2014; Dølvik, 2013). See Nerheim (1998) and March and Olsen (1989) on the Norwegian state's regulation of the oil industry in the 1970s.

# 3 Contextualizing and Conceptualizing Uber: Technological Revolutions and the Platform Economy

As illustrated in the previous chapter, the concepts and context used to describe and analyze the platform economy are important for how we understand these phenomena. Uber did not emerge in a vacuum, but, I argue, is contingent on broader economic and technological processes. In this chapter, I elaborate Carlota Perez' macro-historical model of technological revolutions and techno-economic paradigms and concepts developed within the local research frontiers (see Mjøset, 2006) on the platform economy as tools for putting Uber into perspective. This should not be considered a theoretical framework, and I will draw on other concepts throughout my analysis to move beyond both Perez' economic point of view and the business model focus of the emerging literature on the platform economy. In particular, I use Karl Polanyi and Gilles Deleuze as points of departure for a discussion of more general features and implications of the platform economy in chapter seven. Both Polanyi and Deleuze present sketches of what Karl Mannheim ([1943]2010) termed a "diagnosis of our time", i.e. holistic interpretations of the key characteristics of a temporally given society.[36] Such diagnoses synthesize diverse empirical accounts, suggesting overall perspectives that feed into public sphere discussions on the predicament of mankind in the present. As no such diagnoses are "valid" or "adequate" in a purely empirical sense, I approach Polanyi and Deleuze as partners with whom I discuss my empirical findings and important features of the platform economy.

## Technological revolutions and techno-economic paradigms

Carlota Perez studies the connections between technology and economy by identifying regularities, continuities and discontinuities in the process of innovation (Perez, 2010: 186). Following Schumpeter, she argues that technical change should be studied in the realm of innovations, i.e. where inventions are made profitable because it is in this intersection of technology, economy and social institutions transformations are most visible. Perez creates a

[36] Polanyi published his *The Great Transformation* ([1944]2001) in 1944 and Deleuze elaborated his conceptualization of the "society of control" in the late 1980s (Deleuze, 1995a, 1995b, 1998; Oppegaard, 2018). Thus, they constitute different diagnoses developed under different conditions.

historical model of capitalism by analyzing what she calls technological revolutions, defined as "a powerful and highly visible cluster of new and dynamic technologies, products and industries, capable of bringing about an upheaval in the whole fabric of the economy and of propelling a long-term upsurge of development" (Perez, 2003: 8). This is an event recurring approximately every 50th year, that violently breaks with the technological and economic status quo, and gives rise to a set of new possibilities (Perez, 2010: 189).[37] An individual innovation never emerges at random, but is connected to and appears in "the neighbourhood of other innovations", Perez writes (2010: 187). Each technological revolution is inaugurated by one technological breakthrough, the "big bang" that opens up a space for innovations (Perez, 2010: 189), often based on "an important all-pervasive low-cost input" – usually a source of energy or crucial material (Perez, 2003: 8).[38] A radical innovation is usually introduced first in a primitive version, and once it achieves acceptance in the market, incremental innovations are made in a feedback process between "producers, designers, distributors and consumers" (Perez, 2010: 186).

According to Perez, each technological revolution gives rise to what she terms "techno-economic paradigms". Through these, each technological revolution "spread far beyond the confines of the industries and sectors where they originally developed" (Perez, 2003: 8) and will have significant consequences for the whole production system. Perez conceptualizes a techno-economic paradigm as "a best practice model for the most effective ways of using the new technologies within and beyond the new industries" (Perez, 2010: 189). The techno-economic paradigm "breaks the existing organizational habits" (Perez, 2003: 7; see also Bodrožić & Adler, 2018) and establishes a new "common sense". While the paradigm is directly extracted from the technology, it is simultaneously shaped by the context in which the revolution irrupts. Theoretically, the same technological revolution will give rise to a different paradigm in different economic and social contexts (Perez, 2003: 7).

Perez describes a techno-economic paradigm as "a sort of mental map" of the applicability of the technologies and the "general common-sense principles that enter the culture of the period" (2003: 16). She writes: "It is a 'paradigm' in the Kuhnian sense, because it defines

[37] Marx made a similar argument when writing that "[t]he hand-mill gives you society with the feudal lord; the steam-mill, society with the industrial capitalist" (Marx, [1847]1955: 49).
[38] In the first technological revolution, this was wrought iron, in the second iron and coal, in the third steel, in fourth oil, and in the fifth, microprocessors (Perez, 2003: 14) and – as we will see below – data (Srnicek, 2017).

the model and the territory for 'normal' innovative practice, promising success to those that follow the principles incarnate in the core industries of the revolution" (Perez, 2003: 8–9). It is thus in the core industries of each technological revolution that the new "common sense" emerge and from these industries the paradigm spreads to define the "best-practice" in other sectors of the economy. The principles do not only concern the organization of production, but goes beyond the economic sphere to "become the general and shared organizational common sense of the period", eventually accommodated by the socio-institutional framework (Perez, 2003: 17).[39] While technological revolutions enable new possibilities and economic potential, these cannot be taken advantage of by the organizational models of the previous paradigm. According to Perez, a "transformation in the 'way of doing things'" is necessary for the technological revolution to fulfill its potential. "Thus", she argues, "each technological revolution inevitably induces a paradigm shift" (Perez, 2003: 15).

Perez argues that the construction of a techno-economic paradigm occurs simultaneously in three main areas of *practice* and *perception*: First, in the "*dynamics of the relative cost structure* of inputs to production", where the new and usually cheaper input associated with the technological revolution provide attractive new opportunities for "profitable innovation and investment" (Perez, 2010: 195). Second, in the "*perceived space for innovation*", where entrepreneurs and investors map out the opportunities for development or new utilization of the technologies of the revolution (Perez, 2010: 195). Third, in the "*organisational criteria and principles*", the space in which practices and models for organizing production are evaluated and compared. Some methods, Perez argues, will show superior performance in employing the new technologies for maximum and "become part of the new common sense for efficiency and effectiveness" (Perez, 2010: 197).

The principles of each techno-economic paradigm, then, will extend into the social and institutional sphere.[40] The process of implementing the new principles goes relatively easy in the sphere of the market economy, where competition helps the organizations overcome inertia. The pressure of the market for finding and following new directions is not present in social institutions, Perez argues, which makes them lagging behind until political pressure for

[39] In a similar vein, Chandler (1990: 593) argues that the underlying dynamics of industrial capitalism is first and foremost driven by and visible in developments internal to enterprises.
[40] Suburbanization in the fourth surge and globalization in the fifth are examples of this, Perez argues (2010: 198).

effectiveness demands that also these institutions implement the paradigmatic principles (2010: 198). According to Perez (2003: 19), the configuration of the principles of each techno-economic paradigm takes about a decade and have to be learned, after which it provides a model that all can follow.

The diffusion of the technological revolution and the techno-economic paradigm together constitutes what Perez calls a "great surge of development" (2003: 151). In the history of capitalism, Perez has found five technological revolutions and subsequent "surges" (see table 3.1).

*Table 3.1 The industries and infrastructures of each technological revolution*

| *Technological revolution* | *New technologies and new or refined industries* | *New or refined infrastructures* |
|---|---|---|
| FIRST:<br>From 1771<br>*The 'Industrial Revolution'*<br>Britain | Mechanized cotton industry<br>Wrought iron<br>Machinery | Canals and Waterways<br>Turnpike roads<br>Water power |
| SECOND:<br>From 1829<br>*Age of Steam and Railways*<br>In Britain and spreading to Continental Europe and USA | Steam engines and machinery<br>Iron and coal mining<br>Railway construction<br>Rolling stock production<br>Steam power for many industries | Railways<br>Universal postal service<br>Telegraph<br>Great ports, great depots and worldwide sailing ships<br>City gas |
| THIRD:<br>From 1875<br>*Age of Steel, Electricity and Heavy Engineering*<br>USA and Germany overtaking Britain | Cheap steel<br>Full development of steam engine for steel ships<br>Heavy chemistry and civil engineering<br>Electrical equipment industry<br>Copper and cables<br>Canned and bottled food<br>Paper and packaging | Worldwide shipping in rapid steel steamships<br>Worldwide railways<br>Great bridges and tunnels<br>Worldwide telegraph<br>Telephone<br>Electrical networks |
| FOURTH:<br>From 1908<br>*Age of Oil, the Automobile and Mass Production*<br>In USA, spreading to Europe | Mass-produced automobiles<br>Cheap oil and oil fuels<br>Petrochemicals<br>Internal combustion engine<br>Home electrical appliances<br>Refrigerated and frozen foods | Networks of roads, highways, ports and airports<br>Networks of oil ducts<br>Universal electricity<br>Worldwide analog telecommunication |
| FIFTH:<br>From 1971<br>*Age of Information and Telecommunications*<br>In USA, spreading to Europe and Asia | The information revolution:<br>Cheap microelectronics<br>Computers, software<br>Control instruments<br>Computer-aided biotechnology and new materials | Word digital telecommunications<br>Internet/electronic mail and other e-services<br>Multiple sources, flexible use, electronic networks<br>High-speed physical transport links |

Source: Perez, 2003: 14

Perez divides each surge into two periods. The first two or three decades constitute the *installation* period, during which the new industries and infrastructures are established. The second period, *deployment*, is introduced by a "turning point", where the tensions built up between the previous paradigm and the new businesses models and principles are surmounted by a financial crash, after which the transformation of the whole economy begins (Perez, 2003: 151–2). These two periods, Perez subdivides into four phases.

The *irruption* phase can be characterized as a "love affair" between a revolutionary technology and financial capital. This is a phase when financial capital is looking for new and more profitable technologies in which to invest as the technologies of the old paradigm yield sparse returns (Mjøset, 2009a: 240). When these potentials become visible, financial capital rushes to invest, dislocating itself from productive capital. This marks the transition to the *frenzy* phase, where the paper value of the new industries and products enabled by the technological revolution explode. The investments facilitate the construction of an adequate infrastructure for the core industries and products of the technological revolution. This makes an increased growth possible but decouples financial capital even further. Perez calls this the "casino economy" (Perez, 2003: 105), creating a bobble ending in a crash[41]. The crash marks the turning point of each surge, after which new regulations are introduced during the depression, and the beginning of the period of *deployment* and the *synergy* phase where financial capital is recouped by investments in production. Perez calls this the "Golden Age" (Perez, 2003: 5). During the *synergy* phase, the new technologies are generalized, industries developed and created, and the "common sense" of the new techno-economic paradigm spread throughout the economy. In the following *maturity* phase, there are new signs of separation of investment in paper value and production, as financial capital is looking for new avenues of profit due to a saturation of the established markets. The now old technologies and industries no longer yield as great gains, and the conditions for a new technological revolution are established (Perez, 2003: 86).

This process takes time. To unfold completely, more or less half a century has to go by as the socio-institutional framework adapts to the new technologies and paradigm. While social institutions shape the direction of the technological potential and the distribution of its fruits

[41] Perez finds five crashes connected to the five technological revolutions: The 1797 crash after the "Canal Panic", in 1847 after the "Railway Panic", the "Baring Crisis in 1890, the 1929 stock crisis and the 2000 dot-com bubble (Perez, 2003: 78).

(2003: 153), they eventually become obstacles for the introduction and diffusion of the next technological revolution. Thus, Perez argues, each technological revolution brings a process of "institutional creative destruction" through which the old framework is left behind and a new installed (2003: 154).

*Understanding Uber: The techno-economic paradigm of the ICT age*

The concept of techno-economic paradigm is a tool for contextualizing and historicizing products and practices. What initially seems to be "common sense", a "smart move" or a "better" product, Perez' notion enables us to comprehend rather as contingent on the evolution and diffusion of a technological revolution. According to Perez, we are currently at the turning point of the ICT revolution, initiated by the bursting of the dot-com bubble in 2000 and prolonged by the financial crash in 2008 (Perez, 2009). We have not yet seen the introduction of regulations and policies that would enable the full deployment of the ICT revolution and its "Golden age" (Perez & Leach, 2018).[42]

By placing Uber in the context of the particular techno-economic paradigm of the ICT age, it becomes possible to see that Uber did not emerge solely as a result of the "inefficiencies" of the Norwegian taxi industry, but as a part of a much wider restructuring and transformation of the whole economy and society associated with the ICT revolution. The "big bang" of the ICT age enabled a technology system to emerge around microprocessors. This technology system was early on adopted and integrated into calculators, games, and the digitalization of control instruments, Perez writes (2003: 189). The following radical innovations in minicomputers and personal computers, software, telecoms and the Internet further opened new trajectories for this technology system. It was in these industries the principles of the techno-economic paradigm of the ICT age were defined, subsequently spreading throughout the economy as the new technologies created new and modernized established industries (Perez, 2010: 196). However, Perez offers only an abstract litany of the features of the techno-economic paradigm of the ICT age: "Information-intensity", "[d]ecentralized integration/network structures", "[k]nowledge as capital/intangible value added", [h]eterogenity, diversity, adaptability", "[s]egmentation of markets/proliferation of niches", "[e]conomic scope and specializing combined with scale", "[g]lobalization/interaction

[42] Perez writes: "The turning point is neither an event nor a phase; it is a process of contextual change. It can take any amount of time, from a few months to several years" (2003: 52).

between the global and the local", "[i]nward and outward cooperation/clusters" and "[i]nstant contact and action/instant global communication" (Perez, 2003: 18).[43] Given that Uber's business model is fundamentally based and dependent on the core technologies and infrastructure of the ICT age, I hypothesize that the case of Uber Black in Oslo can provide important insights into the materialization of this period's techno-economic paradigm. I return to this in chapter seven.

To understand Uber, the conditions under which its business model emerged and the particularities of Uber Black in Oslo, we have to account for different layers of context. First, Uber found its technology and principles in the ICT age and its corresponding techno-economic paradigm. Second, Uber developed its business model in the US, adjusted to the there prevailing political-economic conditions characterized by large inequalities, meager market regulations (Jacobs & Mazzucato, 2016; Stiglitz, 2016) and one of the highest vehicle-per-capita rates in the world (Energy.gov, 2017). Third, when establishing its operations in Norway, the Norwegian labor market model constitutes the backdrop for contextualizing Uber's work arrangement. Fourth, the regulations of the transportation sector in Oslo restricted how Uber could operate legally in the city. And fifth, the particular conditions of the Uber Black market in Oslo provides additional conditions influencing the manifestation of the phenomenon.

## The platform model. Principles and properties

"If the industrial revolution was organized around the factory", Kenney and Zysman write, "today's changes are organized around […] digital platforms" (2016a: 62). They see the platform economy as the last phase in the proliferation of an ICT based economy, facilitated by the abundance of data, storage and "cloud computing" (Zysman & Kenney, 2018: 58). Echoing Perez, Srnicek argues that capitalism in the twenty-first century has turned to data as its most basic raw material (2017: 6). In this context, the "platform has emerged as a new business model, capable of extracting and controlling immense amounts of data, and with this shift, we have seen the rise of large monopolistic firms [such as Google, Facebook, Amazon]" (Srnicek, 2017: 6). The more data businesses are able to extract and analyze, the

[43] Freeman and Louçã (2001: 325ff) give the same overall characterization of this techno-economic paradigm, while also highlighting the organization of companies into large networks. The primary feature of both the inter- and intra-organizational principle of the ICT age, is the use of information and rapid communication infrastructures to coordinate production.

more likely they are to succeed, Srnicek writes (2017: 40). While being most prevalent in the "tech" industry, the platform model is also entering traditional manufacturing industry with for example GE and Siemens, and the agricultural industry with John Deere and Monsanto.[44]

The platform economy is still in formation, and "[a]lthough technologies may not dictate our future, they frame the choices to be made and questions to be answered. […] If we do not interrogate these technological trajectories, we risk becoming unwitting victims of their outcomes", Kenney and Zysman argue (2016a: 64). Following this line of argument, the concept of the platform functions as a tool for investigating the properties of the platform model as well as how the implementation of digital platforms in the world of work unfolds in the case of Uber Black in Oslo.

*The concept of the platform: Labor and algorithmic management*

Srnicek writes that while platforms often present themselves "as empty spaces for others to interact on, they in fact embody a politics" (2017: 46–7): It is the platform that creates the rules of the game. Zysman and Kenney highlight the same feature, arguing that platforms are "multisided digital frameworks that shape and intermediate the rules participants follow to interact with one another" (2018: 56). Zysman and Kenney hold that platforms "deeply structure the rules and parameters of action available to users" (2018: 62), conceptualizing platforms as "sets of parameters and rule systems that shape what can be done by whom and on what terms" (Kenney & Zysman, 2016b: 5).

What Kenney and Zysman call labor-market platforms are one particular form of platforms, that to some degree raise their own questions (2016b). Many platforms are based on automating work previously performed by humans, but labor-market platforms are particularly interesting because human labor is the key ingredient in their operations. While Srnicek does not explicitly write about labor in the platform economy, Kenney and Zysman argue that embedding products and services in digital platforms "not only shifts the terms of competition, but creates new forms of work and new ways of engaging with workers" (2016b: 6). When services are transformed into digital processes that can be formalized and

[44] The fact that the same organizational principle and similar business models are used in very different sectors of the economy, illustrates Perez' argument that the "common sense" of every technological revolution expands to other spheres of the economy than where it initially was developed.

codified, the labor of providing the service itself is changed as well (Kenney & Zysman, 2017: 13). Kenney and Zysman do not, however, give any indications of what this reorganization actually entails for labor and workers. Uber is thus an interesting case for investigating these changes in practice.

The platform model provides an infrastructure establishing the conditions under which the platform can be used, and directs and controls what users can and cannot do. This form of power Lee et al. (2015) term "algorithmic management" (see also Vandaele, 2018; Wood et al., 2018). Rosenblat and Stark (2016) argue that there is a tension in the platforms such as Uber's promotion of flexibility and continued disassociation from the traditional employee-employer relationship, and the control the platform exercise over the driver's work. Being a platform, Uber has portrayed itself as a technology and "a neutral intermediary that facilitates access to underused and 'undercommoditized goods and services', engaging drivers as independent contractors" (Rosenblat & Stark, 2016: 3761). Rosenblat and Stark (2016) study Uber drivers' experiences and the platform's exercise of control, and argue that Uber's platform is based on fundamental asymmetries of information and power[45] (Rosenblat & Stark, 2016: 3758).

In the case of Uber, three techniques for algorithmic management are of particular importance: Assignment of trips, dynamic pricing and bilateral ratings (Lee et al., 2015; Rosenblat & Stark, 2016; Calo & Rosenblat, 2017). As a platform collecting and analyzing vast amounts of data, Uber is able to assign drivers with requests from passengers automatically. The drivers do not choose the passengers they pick up but can reject requests. Second, Uber's extensive data-extraction further enables the platform to change the price of an Uber ride according to fluctuations in supply and demand. Through the dynamic pricing algorithm called "surge pricing", Uber tries to make the trip fares reflect the actual and always changing market-prices for a ride (see Chen et al., 2017). Third, after the ride, drivers and passengers evaluate each other through Uber's rating system. They cannot see specific ratings, but the average is calculated and displayed on their profile. If a driver received an average rating below an undisclosed threshold, she can be "deactivated" (Lee et al., 2015;

[45] These power asymmetries are illustrated by Uber's use of the so-called Grayball technology, preventing police and other government officials from seeing the Uber cars on the map on the application and ordering trips (Isaac, 2017a). Uber confirmed that the technology also had been used in Norway (NTB, 2017a).

Rosenblat & Stark, 2016; Uber, no date, k). In this perspective, the platform should be conceptualized as a device for extracting data and a dynamic infrastructure adjusting its parameters and measures to the ever-changing environment.

# 4 Exploring Labor in the Platform Economy. Methodology and Ethics

This research design rests on an endeavor to investigate labor under the conditions of the platform. Uber, as one of the biggest – economically and geographically – and well-known labor-market platforms, provides a good case for such an exploration. The intersection between technology and labor constitutes my point of entry, from where I will discuss the conditions and characteristics of the platform economy, as well as how the process of reorganizing the world of work through the deployment of ICT looks from the perspective of the drivers and this situated case. As Marcus and Fisher note, it can be difficult to describe how one's local object of analysis is embedded within larger systems and structures (1986: 77), and my case study only illustrates some tendencies and tensions in the unfolding of these processes. Studying Uber in Norway today – after Uber Pop was withdrawn – yield an opportunity to analyze how Uber manifests its business under the conditions of the regulation of the Norwegian passenger transportation sector. When studying Uber Black,[46] one cannot postulate the exceptional character of the case, as was possible when discussing Uber Pop, which was continuously balancing the edge between legality and illegality before having to succumb. Uber Black, however, is no exceptional case, but – as I will elaborate in the next chapter – a legal organization of transportation in Norway today.

I approach the case of Uber Black in Oslo not as the result of a mere collection of elements or variables, but as an entity in its own right (Ragin, 1987: x). Mjøset (2009b: 47–8) argues that while "the outcome and processes [studied in a case study] are significant in and of themselves", a potential for generalizations arise from an analysis of the specificities of the case and its context (see also Flyvbjerg, 2006). There are many similarities between labor-market platforms, and Uber employs the same platform model in different contexts, but the effects of organizing labor through platforms are highly contingent on the political, legal and economic context in which they operate. Hence, I explore Uber Black as a particular manifestation of Uber's business model. More broadly, I investigate Uber as a case of labor

[46] I chose Uber Black over Uber XXL and Uber Lux because – based on available cars visible on the map on Uber's mobile application – this seems to be the product with the most drivers.

in the platform economy,[47] illustrating some aspects of the ongoing process of organizing labor through the technologies and logic of the ICT age.

In this chapter, I describe my research design and the research process. To provide transparency and enable reflection on the research process, I will detail the choices and assessments I made in generating and analyzing the data material.

## Bumps in the road and new directions

In my initial project proposal, I intended to do extensive observation of a handful Uber Black drivers. I wanted to get to know them and drive with them while they worked. This kind of shadowing (see Czarniawska, 2007), I thought, would provide a window into their work and lives. I could sit in the car with them, talk to them as well as their passengers, and see what was going on. I sent my research proposal to the Norwegian Social Science Data Service (NSD), who approved my project.

I entered the field late on a Friday afternoon in early March 2018. My strategy for recruiting drivers was to order an Uber Black trip and during the ride inform the driver about my project and ask if he or she would like to participate.[48] I was of the opinion that this would be unproblematic. Prior to this, I had a meeting with Uber Norway (together with my co-supervisor) and informed them about my project. No problem, I was told. The drivers are their own bosses and free to participate if they want, just make sure that you do not bother the customers, Uber Norway said.[49] The first driver I met liked my project very much. I told him what I was going to do, asked if he would like to participate – he said he had to think about it – and I gave him the information sheet I had made sketching out my project and with my contact information. While I crossed my fingers and waited for him to call me, I took more rides trying to recruit driver. From the second trip, I asked for the driver's contact information, so I would not have to wait for them to get in touch with me. This strategy for

[47] See Ragin (1992) on "casing".
[48] I also tried to recruit drivers through Facebook groups, but, similarly to Finstad's experience (2017), this yielded me no results.
[49] Uber Norway offered to send out an email to all its drivers in Oslo telling them about my project and giving them my contact information. Two weeks later, however, they told me this was not possible after all, but they put up a note with a short description of my project and contact information in Uber's "Greenlight hub" – where drivers can come by to get assistance – in downtown Oslo. I received one call from a driver who saw this note and told me he wanted to participate, but when I called him back, he did not respond. I tried three times over the next days, still no response.

recruiting drivers seemed to work really well: Every driver I met was enthusiastic and told me he – they were all male – wanted to participate.

When I had met five drivers and contacted them to arrange the observation, my own enthusiasm began to wither: Two of them did not respond to my message and two stopped responding when we were going to organize how to do the observation. Only one, it turned out, wanted to participate, and he did only want to be interviewed. We did the interview a few days later and talked for 45 minutes. On the sixth trip, I met a driver who gave me the following response to my inquiry about participation: "To be honest, I don't", he said. He told me it was not weird that the Uber drivers I had met did not want to participate in my project. My presence might make customers dissatisfied with the ride or not want to ride with them at all. This, Uber drivers cannot risk, he argued. I told him I understood but asked what he thought of doing just an interview sometime. "We have families and we have to work. Taking a break from work to talk to you means that we are not making money", he replied. I needed to find a new direction.

The drivers had told me about how they got the job, what their workday looked like and how it was to be an Uber Black driver in Oslo. I had written extensive fieldnotes from all the Uber trips I had taken so far, and they were brimming with insights and interesting data. Maybe I did not have to spend a lot of time with each driver? Maybe I could take a single trip with different drivers instead? I decided it was a viable direction and worth a try. Nonetheless, the problems I encountered gaining access to the field should not only be seen as a methodological problem but also a valuable source of data (see Schwartsman, 1993: 48), illustrating what I later learned was important aspects of the everyday lives of the Uber Black drivers in Oslo.

*Traveling ethnography*

My new approach was to do a short interview and observation during the Uber ride, what I term a traveling ethnography.[50] I ordered the trip, presented myself and my project, asked if the driver would like to participate and if I could ask them questions during our ride. I did most of the interviews and observation traveling between Fafo – where I have had my office

[50] Rosenblat (2018: 209–15) employs a similar methodology and research design when studying Uber drivers in the US.

during the writing of this thesis – and the university at Blindern, a 20-minute ride. I began employing this approach from the eighth trip. In total, including those drivers I met when I tried to recruit them to my initial design, I have met 20 drivers and made 21 trips, as I met one driver twice. This strategy for generating data material was not free. I had to pay the fare of each trip, usually between NOK 250 and 300.[51]

In one sense, this is not an ethnography. I am not studying a "culture" or a group of people with shared beliefs and customs through sustained immersion (see Willis & Trondman: 2000; Bloor & Wood, 2006; Geertz, 2000). I met the drivers one by one, and the drivers told me they seldom meet and interact with each other. However, they are still subjected to similar working conditions, which is what I am interested in. Hence, I employ the ethnographic method to explore the lives and experiences of the Uber Black drivers in Oslo and study Uber from their perspective. This, Schwartzman argues, is better done by the investigator going into the field than by bringing the field to the investigator (1993). Furthermore, doing the observation and interviews in the cars, in the same space the drivers spend most of their days, was an advantage (see Widerberg, 2001: 113): I could see where these people spent their working day, ask them question based on what I saw and they could comment on what we experienced during the trip, in the cars, their workplace, enabling a fruitful combination of interviewing and observation that allowed me to study the interaction between the drivers and the physical and symbolic attributes of the interview-site (see Elwood & Martin, 2000).

However, by doing interviews and overt observation in the car, the ride was transformed into a research situation. By being "among the data", I was no outside observer but actively producing the data and exercising a significant influence on the situation (see Aase & Forssåskaret, 2014: 35). It is problematic to assume that there is any one truth "out there" that a researcher's participation disturbs, Alvesson and Kärreman argue (2011: 99; see also Atkinson & Coffey, 2003: 120; Czarniawska, 2007: 18), and I used the situation to my advantage by asking the questions I wanted answers to as well as studying myself and my interaction with the Uber drivers and platform. In the writing of this thesis, I have highlighted that statements and stories are those of the drivers I have met, but I cannot know for sure whether the information they gave me is accurate.

[51] I received a grant from the Department of Sociology and Human Geography at the University of Oslo covering this cost.

Over the course of four months – from early March to late June 2018 – I entered, exited and re-entered the field. Sometimes there were many days between each trip, other times I rode every day. I combined fieldwork with reading, allowing me to digest what I had heard and seen, and ask more directed questions based on what I found to be unclear, particularly interesting or important. For the interview with the one driver who wanted to participate but only be interviewed, I had made an interview guide. However, this was a guide for a full in-depth interview, much more than I was able to cover over the course of a single Uber trip. I rather tried to be strategic, focusing on one or two themes with each driver, for example the rating system, working hours or wages, always asking open questions. I started every conversation by asking how their day had been so far and how they became Uber drivers. This was an opportunity for a more explorative approach where I could adjust my questions and not only get answers to inquiries developed before encountering the field.[52] Even though I through this strategy have not been able to ask all the drivers the same questions, I have talked to and met many drivers and had the opportunity to see and hear common experiences and important differences.[53] Through this design, I could not study the passengers and the interaction between them and the drivers, which I would have been able to do in my initial design. However, I have used the fieldnotes to write down my own experiences as a passenger and included these in my analysis.

I usually asked if I could record the conversation. Two drivers did not want me to record, but most drivers started talking before I was able to ask about recording. Thus, I only recorded five conversations, in addition to the first in-depth interview, and my analysis primarily relied on the fieldnotes I wrote after each trip. I first wrote a detailed recollection of the trip in Norwegian in a notebook, before digitalizing the notes and translating them into English.[54] Most of what the drivers told me have thus been filtered through my own words, and cannot

[52] After around 15 trips, I experienced some saturation (Seale, 2004). The drivers told me similar stories and repeated what previous drivers already had said to me. I used the last few trips to ask questions directed at specific elements I needed to piece together.

[53] As the interviews I conducted with the drivers were relatively short and thematically delineated, I did not capture their full *Lebenswelt,* often highlighted as the aim of in-depth interviews as a method (see Charmaz, 2014: 56ff; Kvale & Brinkmann, 2009: 47; Thagaard, 2013: 95; Tjora, 2017: 114). Formally, my approach is more in line with what Merton and Kendall termed "focused interviews" (1946), although their modus operandi is more deductive than mine. While my use of interviews is somewhat similar to that of Henriksen and Tøndel's "spontaneous in-depth interviews" (2017), they are primarily interested in social interaction. In my research design, the conversations with the drivers functioned as a method for gathering information, stories and experiences.

[54] I either carried the handwritten fieldnotes with me or locked them in a drawer at my office. The digitalized fieldnotes were stored in encrypted form on my password-protected computer.

be considered verbatim, although I have attempted to use their phrases and choice of words as truthful as my memory and language allow. While only material from the recorded conversations in English are direct quotations, I use my anamneses of the drivers' accounts from the fieldnotes as quotable transcripts. For purposes of anonymity, I do not make explicit which conversations were recorded and not. I spoke English with a few drivers, but we usually spoke Norwegian. Even the recorded conversations, then, have been exposed to the risk of me imposing my own language and thus point of view on the drivers' experiences, arguments and stories. This risk, however, does not exceed the value of bringing the drivers' voices to a broader public.

I anonymized the drivers by denoting them using their number instead of fictitious names, to draw attention to their experiences and stories rather than to them as individuals. I have numbered the drivers according to the order in which they are introduced in the text. Furthermore, I have only kept the month of the trip in my fieldnote references and will not give a table with number, origin, contract et cetera of each driver. Where a particular detail or characteristic is important, I provide the necessary information in the text.

*Algorithmic selection and expanding the picture*

As a passenger, Uber's platform did the selection of drivers on my behalf. I learned that the drivers work two shifts, day and night, and I ordered trips at different hours to avoid a potential selection bias. As I do not have a complete list of all the Uber Black drivers in Oslo, I cannot take other measures for establishing a representative sample than taking many rides. I do not know the exact number of Uber Black drivers in Oslo, but Uber Norway told me there are currently under 100 Uber drivers in Oslo, and Oslo municipality declares that there are 90 limousine service operator licenses in Oslo (Oslo municipality, no date). These licenses are linked to the cars, which are used by at least two Uber Black drivers, as well as other companies providing exclusive passenger transportation. This indicates that the 20 drivers I have met might constitute a not insignificant proportion of the Uber Black drivers in Oslo.

Uber's platform occupies a key role in my analysis, and it was crucial to gain accurate and reliable information on how this platform works. From the perspective of the user, driver and passenger, however, the platform's inner workings are more or less unintelligible, and the

drivers I met had only limited knowledge of how they *thought* the platform functioned.[55] To analyze the platform itself, I thus had to consult additional data material. Uber's own websites proved to be an important source of data. The company has published descriptions of its platform as guides to drivers and passengers, blog posts and news articles, of which I have analyzed 15. In addition, I have reviewed eight publications commissioned by Uber or written by Uber's economists from 2015 to 2018. I have selected the top-cited articles by these economists and articles focusing on how Uber's platform works. This review cannot be considered a "systematic review" (see Gough et al., 2017), but is an analysis of Uber's economic-scientifically technological answers to the particular problems posed by its work arrangement. All these documents are produced, commissioned and/or published by the company itself, and constitutes an element in the company's self-presentation. I have made all quotations explicit, and combined with the drivers' – as well as my own – experiences, I endeavored to assemble an analysis of the functions and effects of Uber's platform.

## Double role and consent

Throughout my traveling ethnography, I was technically a passenger. While I first tried gaining access to the field solely as a researcher, the double role as researcher-passenger enabled entry (see Aase & Fossåskaret, 2014: 201). I made my role as a researcher as overt as possible, but some challenges emerged from this double role. I ordered and paid for every trip, I was going to "rate" the driver afterward[56] and we were going to ride together for a little while. I always highlighted the voluntary nature of participation, told the drivers I would anonymize everything they said, that I was doing research for my master's thesis, and asked if they would allow me to ask them some questions during the ride. I never withheld any information about my project or myself. Nonetheless, it is not unlikely that their decisions to participate were influenced by the aforementioned features of my role as a passenger.

The National Committee for Research Ethics in the Social Sciences and the Humanities (NESH) writes that all participants must give "freely, informed and expressly" consent to participate in a research project (NESH, 2016: 14; see also Ryen, 2004: 219). I cannot know whether I would have attained the same data if I had not held the double role as researcher-passenger. A few drivers asked some questions about what I was going to ask them, but

[55] I will return to this in chapter six.
[56] I gave every driver I met a five-star rating.

usually they just started talking, right away. Most drivers were very talkative and I experienced them as interested in telling their story and sharing their experiences with me. After each ride, I offered the drivers a document detailing my project and highlighting the possibility of withdrawal at any time, also including my phone number and email address.

With the drivers I met during the recruitment for my initial design, I faced another challenge. I was of the assumption that we would meet again later and we did not discuss what I was going to do with our conversations. But they all knew what my project entailed and that I was a master's student, and all received the information document. In addition, in a qualitative research process such as this, the analysis is continuous throughout the research process (Leseth & Tellmanm, 2014: 140), and I could not forget what they had told me. Nonetheless, I have chosen to rely on my notes from these first trips to a very limited degree in my analysis and not use any sensitive information.

Despite these challenges, my double role as researcher-passenger was undoubtedly valuable. As a passenger, I experienced how the platform works, the psychological effects of the rating system, the luxury of the cars and the unpredictability of the "surge pricing" algorithm. Furthermore, my role as researcher-passenger exposed the social, economic and ethnic distinctions between me and the drivers. I was often addressed as being part of a "you" as opposed to their "us", a representative of their "Other", both "the passengers" and the ethnic majority. This was a valuable finding, allowing me to better conceive the drivers' position in the Norwegian labor-market and society.

## Analyzing the voices from the road

My analysis is guided by an interest in the way the Uber drivers' work is organized. I began by reading through my fieldnotes and transcripts to get an overview of my material, and subsequently did a thematic coding of my data material, sorting excerpts from my fieldnotes and interview transcripts based on their content (see Coffey & Atkinson, 1996). This resulted in eight categories: "Becoming an Uber driver", "The limousine companies", "Contracts", "Luxury", "Trip assignment", "Surge pricing", "Rating system" and "Drivers' strategies", after which I structured my analysis. As I had asked different questions to different drivers, not everyone is represented in each code. I also took more Uber trips after I had done the first coding. Furthermore, I use quotes from the drivers as an illustration of broader tendencies in

my data material emerging from this thematic coding. Uber's online documents and research provided important insights for contextualizing the drivers' experiences and stories. Throughout the process of writing the analysis, I have gone back and forth between fieldnotes, documents, codes and analysis.

I have tried to describe Uber from the drivers' perspective, but their voices have been filtered through me and the voice of the researcher analyzing their experiences and stories (see Schwartsman, 1993: 66). I have been there, in the car, with them, and seen them work – sometimes through the mirror from the back-seat, sometimes from the front passenger seat. This has enabled me to construct an analysis of the work arrangement regulating the drivers' labor, but the analysis is mine. On some occasions, I presented my tentative analysis for the drivers I met, checking if my understanding was correct. I have also discussed my findings and conceptualizations with researchers in the field and co-students, as well as comparing my findings to the emerging academic literature on the platform economy. Based on my case study of Uber Black in Oslo I could have told many different stories. There is a myriad of themes and dimensions compiled within this one case, and while my approach has been explorative, the overarching story I tell in this thesis is informed by an interest in the work arrangement and the platform model as an organizational principle. Hence, there are aspects of the Uber Black drivers' lives and work I have left out or not pursued at length.

In analyzing the work arrangement of Uber Black drivers in Oslo, I make a distinction between the formal and the technological work arrangement, resulting in chapter five and six respectively. This is a purely analytical distinction, employed to sort out the particularities of first, Uber Black's adjustments to the regulations of the Norwegian passenger transportation sector, and second, of Uber's digital platform. While these forms of arranging the drivers' labor definitively overlap and synergize – i.e. the formal work arrangement is contingent on the technological and vice versa, a point I return to in chapter seven –, I found the distinction fruitful for constructing a lucid and structured analysis, as well as for highlighting that they constitute different modes of coordinating and controlling labor.

# 5 The Work and Workers of Uber Black in Oslo. Uber's Formal Work Arrangement

In the coming two chapters, I investigate the work arrangement of Uber Black in Oslo. I distinguish between the formal work arrangement to denote the practical organization of this particular materialization of Uber's business model, and technological work arrangement to describe the way in which Uber uses the platform to coordinate the drivers' labor. I begin by describing the everyday lives and work arrangement of the Uber Black drivers in Oslo.

## The people behind the wheels

In their analysis of the status quo of the platform economy in Norway, Alsos et al. (2017) found that of the 1298 active Uber Pop drivers in 2016, 87 percent were men. 68 percent were over 30 years old[57] and – while they do not have data on ethnic background – the drivers' names indicate that most have Eastern European, Asian or African origins (Alsos et al., 2017: 56–7). Similarly, all the Uber Black drivers I have met have been male[58] and all but two had themselves immigrated to Norway or are the children of immigrants. Except for one immigrant from a Nordic country, the drivers are of Eastern European, Asian and African origins. While I did not ask any of the drivers how old they were, my estimate, based on their appearance and the stories they told me, is that three of the 20 drivers I met were in their 20s, most between 30 and 40, and four in their 50s or 60s.

A 2014 survey by Uber-employed economists of Uber drivers in the United States found that 91 percent of Uber drivers reported their main motivation for driving for Uber as "earn more income to better support myself and my family", and 87 percent said they wanted "to be my own boss and set my own schedule" (Hall & Krueger, 2017: 9).[59] The drivers I met similarly told me the flexibility of the job was the prime reason for driving Uber: "I can drive whenever I want", driver 1 said, while driver 2 found it "cool to be my own boss". In

[57] This is contrary to findings from other countries (see Hall & Krueger, 2017).
[58] This, however, is not specific to Uber, but characteristic of the Norwegian transportation sector in general (see Jensen et al., 2014). The fact that all the drivers I met were male creates a risk of universalizing the male experience, the reverse of what Elton Mayo did in the Hawthorne studies (Illouz, 2007: 15).
[59] Berg and Johnston, however, argue that this survey is "fraught with methodological problems – sample bias, leading questions, incomplete reporting of findings, flawed earnings calculations, unsubstantiated claims, and outdated data" (2018: 26).

highlighting the flexibility of the Uber arrangement as a major advantage, these drivers repeat the slogans from Uber's recruitment campaigns: "Drive when you want, make what you need", Uber writes. "When you drive is always up to you, so it never interferes with the important things in your life", the company continues (Uber, no date, n).

Nonetheless, the drivers' valuation of the flexibility offered by Uber's arrangement cannot be dismissed as a mere reification of the company's own rhetoric: The drivers experienced that Uber provided them with real opportunities. Driver 1, for example, told me that being an Uber driver enables him to take days off "and go back to my country" where he visits family. Uber makes it possible for the drivers to earn easy money and be in control of their own lives. He, who began his career driving Uber Pop, told me about his first time driving Uber:

> It was 12 o'clock. I had cleaned the car and was going home and I just turned on the app and there was a sound. I wondered if there was something wrong with the car, but it was the Uber application saying that I had a request. And it was an amazing feeling. *(Driver 1)*

He was on the road, it worked, and he had just made himself some money.

Underneath the tales of the attractive flexibility, however, lies another story – one of necessity. Driver 2 put it bluntly. "I just need a job", he told me. While he previously worked as a waiter, he has a university degree. "I have lived in Norway for six years and I have sent maybe three CVs every month since I came. And I cannot get a job" he said. Driver 3 never drove Uber Pop but tells a similar story: "Having failed the Norwegian course offered to me when I first came to Norway, I had no choice. I need to make a living". In 2017, he got a job at a limousine company with an agreement with Uber and became an Uber Black driver. "Here, I can speak English, they don't care about Norwegian. […] I don't want to stay home taking money from NAV.[60] I can do this job, so I will", driver 3 told me. For him, being an Uber driver is first and foremost better than being unemployed.

An interesting and surprisingly prevalent aspect of the drivers' stories of how they became Uber drivers, is that they began working through to the platform to get more security and stability. Given the description of Uber driver as a particularly "precarious", insecure and

[60] The Norwegian Labor and Welfare Administration.

unstable job (see Slee, 2015; Scholz, 2016; Prassel, 2018; Rosenblat & Stark, 2016), this is somewhat paradoxical.

To understand why Uber appeared as a stable and secure job, we need to keep in mind what these drivers were comparing Uber to. Driver 4 used to work on-call in the petroleum sector. "I stopped. […] The wages are good, the system is good, but traveling all the time". He never knew when he would receive a call. "I was so tired", he told me. Driver 5 told me he used to work "in warehouses, as a temporary replacement". He was employed through a recruitment agency. "It was like six months here, four months there. I am 32, turning 33, so I could not have that instability". A few of the drivers I met used to work in construction. Driver 6 said: "As an Eastern European, recruitment agencies are the only ones willing to employ you. I don't like that. It was very unpredictable and risky. I wanted something more stable." These drivers came to Uber from jobs that in addition to being unreliable and erratic, were physically demanding. Hence, Uber appeared as a relief, chiefly, however, because being an Uber Black driver entails driving a very nice car. Driver 6 continued: "[Uber is] much better than construction. For me, driving this car is the same as lying on the sofa watching television for you". Driver 3 previously worked in construction too and was injured. "It was very hard for my old body. I had to stay home for one year". Now, he said, he can work: "I get to drive this 1.8 million kroner car. I can drive and carry some bags, just not lift my shoulder". Driver 4, who has his own company and employs a few drivers said: "It is an OK job, clean, warm – if you drive during winter, it is warm. Guys who have been working in construction are particularly very happy. They get back the nice and soft hands they had before [laughs]". While Uber provides a comfortable work environment, the drivers' stories illustrate that its most important feature is to offer work to people in need of money. Driver 5's story highlights Uber as a necessity-driven choice: He had been unemployed for three months when a friend suggested that he tried Uber. "I thought it is better to drive, to work, than being unemployed", he said. While he enjoys "being his own boss", Uber is primarily a way to make money, and that is what he needed.

A central theme in the drivers' stories is how easy it was for them to become Uber drivers. The drivers faced no obstacles in "getting the gig", it was easy and quick. The general story is that they either were in need of a job or wanted to get a new one, and – given their frame of reference – Uber emerged as a viable and lucrative opportunity. But most importantly, it was possible.

*From Pop to Black*

Six of the 20 drivers I met told me they got into the Uber system through Uber Pop, and made their move to Uber Black when Uber Pop was discontinued or when they were stopped by the police for providing transportation without the proper licenses. Driver 1 told me what happened when the police caught him:

> I was stopped at a train station picking up a rider. The police were coming through the roundabout and saw that I took someone in the car. They turned around, they followed me, they checked my license plate number, they saw that I'm [from an Eastern European country] and took a Norwegian in the car, and they stopped me. This was one day after Uber lost the appeal in the court. And they asked me if I had a license, taxi license. And I said 'I don't know that I have to have anything like that', and they also asked the customer to step away from the car, if they knew who I was and stuff like that. And they took my license plates. I don't like to drive with stress, so I asked the police what I should do to drive legally. They told me I should drive Uber Black. *(Driver 1)*

Driver 2 was also stopped by the police when he drove Uber Pop: "I lost my driver's license for a year and my license plates for six months. And I got a fine and had to pay everything I had earned to the government. I'm still in debt", he said. Driver 7, on the other hand, was lucky:

> The policewoman [who had stopped him] saw that I got an Uber notification on my phone and asked me to open the phone. I said no. 'But what is that', she asked. 'I don't know, just a random application', I said. I didn't say that I was an Uber driver. We argued for maybe 45 minutes. I said 'can you please just let me go, I have a family and I have to make money for them'. 'Oh, so you acknowledge that you drive Uber?'. 'No!', I said [laughs]. Finally, she let me go. She told me to delete the app and said that they had registered my license plate and hoped to never see me again. I was so stressed. I really needed the money. I read a lot online about how often the police is out looking for Uber Pop drivers, where they go and stuff like that. I felt like a real criminal. But now I drive Uber Black. I can relax. *(Driver 7)*

The drivers I met who were stopped by the police when driving Uber Pop, fined and lost their license, told me they received economic support form Uber Norway. The specificities of their agreement with Uber, however, the drivers were not keen to discuss: "I got some help, but Uber doesn't want me to tell anyone", driver 2 said. Similarly to Finstad's (2017: 50–2) finding, the drivers told me Uber gave them money to pay the fine, gave them back what they had earned – which they had had to hand over to the authorities – and some also received a

sum for each day they were without their driver's licenses. This practice is puzzling. Handing out such welfare state-like benefits fissures the image of Uber as a company working hard to avoid any responsibilities for its drivers (see Morozov, 2013a; Prassl, 2018). However, it illustrates the maneuverability of a company with billions of dollars in venture capital and no profitability requirements.

*The sharing economy to the rescue!*

Uber has been framed as an opportunity for people who have difficulties being integrated into the traditional labor market to get work.[61] Swedish economist Anna Felländer has argued that the sharing economy has a "unique ability to match all levels of competence in the labor market with its right adversary"[62]. This, she claims, makes it an efficient way to absorb the labor power of individuals who struggle to obtain steady employment. Especially refugees will benefit from this kind of work, she argues: "When refugees arrive in this country, they bring two things: Entrepreneurship and a smartphone. The sharing economy is a fantastic way for labor power with low or not very applicable competence to enter the labor market" (Lund & Bjerkan, 2016). Based on the same argument, the Official Norwegian Report *The sharing economy – possibilities and challenges*[63] argues that it is important to facilitate the growth of these types of businesses (NOU 2017:4: 11).

Many of the Uber Black drivers I met told stories of not being able to find reliable and adequate jobs or even a job at all, but they faced no obstacles in becoming Uber drivers. According to Alsos et al. (2017: 57), however, "one can question whether the insecurity associated with assignments and income makes people choose this line of work in favor of other opportunities".[64] The drivers I met often addressed me as "you Norwegians" or "you passengers," highlighting my position as an ethnic Norwegian and a passenger as something fundamentally different from themselves. Although many of the drivers I have met have an education and are able-bodied people, they struggle to establish themselves in a tight labor market where their ethnic background prevents them from capitalizing on their skills and

[61] Morozov (2013b) argues that while the belief that "the Internet" will solve an array of social "problems" today is very prevalent, the technological solutions are usually unable to tackle the complexities of the tasks to which they are put.
[62] M.t.
[63] M.t.
[64] M.t.

competence. Thus, while Uber represents an opportunity to easily find work and be able to take care of oneself and one's family, it is an opportunity where there are few other.

*An alternative reality*

However, there is a group of Uber Black drivers in Oslo diverging significantly from the general picture sketched out above. As I will elaborate in the next section, all Uber Black drivers are engaged through limousine companies. This other group of drivers has been in the limousine business much longer than Uber, they never drove Uber Pop and take Uber Black trips only when their regular schedule provides them with some extra time. Over the course of my fieldwork, I met two such drivers. Importantly, these were also the only two ethnic Norwegians I encountered, both seemed to be in their late 50s or early 60s. Driver 8 even has his own company, and told me he "turns on the app to help Uber." According to his estimates, Uber constitutes only four percent of his total trips. He makes a good salary, he said, and has many regular and high profile private customers. Driver 9 told me he is skeptical of Uber. "I'm a social democrat and old and grey-haired," he said. "I want people to be employed, have insurances and stuff like that." Uber Black, however, "that is OK," he told me. The day I rode with him, he had a three-hour opening in his schedule between delivering and picking up the ambassador of a middle-eastern country. The fact that his regular customers are people like this ambassador, does not necessarily distinguish him that much from "regular" Uber Black drivers. Uber Black is indeed a relatively high-end limousine service, and the drivers regularly told me about their celebrity customers. What separates these two drivers from the rest, is, first that they have been limousine drivers for a long time and have a more stable employment. Secondly, since their customers were primarily people who booked directly through the limousine company – which are more expensive than regular Uber trips – they earn more money and have a different experience of being Uber drivers than their less experienced colleagues.

## The formal organization of Uber Black in Oslo

*Legalizing Uber in Norway*

Everyone who transport passengers for remuneration in a motor vehicle in Norway "must have a license to do so", the Professional Transportation Act dictates (2002: § 4). As we saw in chapter two, taxi licenses are means tested and difficult to attain. However, the limousine

service operator licenses – of which there are 90 in Oslo (Oslo municipality, no date) – provides another possibility to legally transport passengers in Norway. The limousine service operator license is tailored for the high-end segment of the passenger transportation market and granted to companies. To attain such a license, Oslo municipality assesses the profile of the company – 40 percent of the evaluation – and the exclusivity of the car – 60 percent of the evaluation (Oslo municipality, no date). The car cannot be more than four years old, has to be "perceived as luxurious and well-equipped",[65] without any scratches or rust, offer good leg room for the passenger, have a neutral color, and be significantly more exclusive than regular taxis. Furthermore, cars licensed with the limousine service operator license does not have to be equipped with taximeter (Oslo municipality, 2018). Uber places similar criteria on cars to be used for Uber Black: They have to have four doors, room for four passengers, be "exclusive", and black, in addition to holding a limousine service operator license. The driver also needs to hold a professional license (Uber, no date, g).

In contrast to Uber X in the United States and its late Norwegian twin Uber Pop, Uber Black drivers in Norway are generally not independent contractors using their own private cars. In the formal work arrangement of Uber Black in Oslo today, limousine companies[66] – the distinguishing features of the organization of Uber Black in Oslo – own the cars, apply for the limousine service operator license, and employ the drivers.[67] The limousine companies have agreements with Uber[68] and are intermediaries between Uber and the drivers, function as facilitators for Uber's operations in Norway, supplying both cars[69] and the labor power of their employees. Uber Black in Oslo is thus arranged such that the drivers themselves have no direct legal relation to Uber, but only to the limousine company where they are employed. For this – as well as fueling and keeping the cars clean – the limousine companies usually take between 30 and 40 percent of the passenger fare. This comes in addition to the 25 percent cut taken by Uber.

[65] M.t.
[66] According to what the drivers have told me, there seem to be three big limousine companies in Oslo with more than ten cars, and many smaller companies.
[67] The drivers themselves have to apply for a professional license. According to the drivers I have met, this license is easy to attain.
[68] From my fieldwork, I was unable to get the full details on the relation between Uber and the limousine companies.
[69] Driver 7 told me that in his case, the limousine company he is employed at does not own the car he uses. Instead, he has an agreement with a guy who owns a car equipped with a limousine service operator license. Driver 7 can use the car 12 hours per day, but has to pay a cut of passenger fares to both the owner of the car and the limousine company (in addition to Uber's 25 percent cut).

Some limousine companies also take direct bookings. In this sense, Uber can be seen as an extension of their already existing market.[70] Driver 10 told me that the limousine company he is employed by even has its own mobile application through which customers can book trips directly. These trips, he said, have priority over those booked through Uber. As direct bookings are more expensive and Uber does not take a cut of these trips, they are lucrative for the drivers. While most of the drivers I met characterized trips through the Uber platform as the norm, the ratio of Uber trip to direct booking is usually described as 50–50 by those drivers who receive direct bookings. Other have very few direct bookings and some have none. According to driver 11, the limousine companies use their more experienced drivers to do the direct bookings while the newer drivers have to build experience through Uber.

However, The Norwegian Taxi Association has argued that the organization of Uber Black in Oslo might still be illegal. Based on 50 Uber Black trips, they found that none of the receipts satisfied the legal requirements, as they do not include the name of the company, organization number or value-added specification. Three of the cars did not have a limousine service operator license and 14 had an Akershus license, which does not give legal access to the Oslo market. They further found that many Uber Black cars had not been through the required annual EU control and some were too old and had too high mileage to be classified as "exclusive" (The Norwegian Taxi Association, 2018).

*The fourth wheel*

In addition to hiring the drivers and attaining the licenses for the cars, the limousine companies are responsible for fuel, maintenance and the general appearance of the cars and drivers. Driver 1 told me that "the owner [of the limousine company] sends us a message about which gas station where we can refill the diesel" and meets him there. Other drivers receive a credit card from the limousine company they use to buy fuel. Moreover, the limousine companies tell their drivers what they can wear. According to driver 1, the limousine companies require that the drivers wear suits and white shirts, and inspects their uniform when they meet a representative from the limousine company to refuel. He finds it

[70] A possible hypothesis is that Uber has enabled these limousine companies to scale up their business significantly. The fact that most of the drivers I have talked to have been driving for less than a year and that the Oslo-based limousine companies' revenue has grown rapidly the last years (Solem, 2018), suggests that this might be the case.

somewhat bothersome and unwieldy: “It is kind of hard because I need to have like seven white shirts. And I have not only white, I have also stripes. But he [the person who inspects them] doesn’t like it”, driver 1 said. Not all the drivers I met worn suits. While most have a somewhat formal appearance, some wore just a neutral shirt.

Alsos et al. (2017) describe the platform as a triangular relationship consisting of the platform, service provider/seller, and customer/buyer. The Uber Black arrangement in Oslo, however, consists of four actors. In addition to the platform, the driver and the passenger, Uber Black in Oslo is dependent of limousine companies to provide the cars and the drivers. They are the essential fourth wheel in the triangular relationship. Throughout my fieldwork, the limousine companies loomed in the backgrounds, exercising a significant influence on the conditions under which the drivers can sell their labor power through Uber’s platform, but I was never able to get the drivers to talk much about them.

*Three types of contracts*

In contrast to Uber Pop (see Hotvedt, 2016; Alsos et al., 2017: 77–85), all Uber Black drivers are employed by limousine companies, with the exception of those drivers who own their own company – of whom I only met two. What kind of employees they are, however, varies, and can be sorted into three different types of contracts. The most common is to be employed on a temporary replacement contract and paid a commission of every trip fare. Since Uber takes 25 percent of what the passengers pay while the limousine companies take 30 or 40 percent, the driver is left with between 35 and 45 percent of what he “drives in”, as the drivers say. As I will return to below, these drivers are dependent on getting customers to make a living – no customers, no money. Driver 3 told me that on the day I met him, he had had to spend four hours at a garage waiting for the car to be fixed. Since he is paid solely on commission, he was not reimbursed those hours, even though it was the limousine company’s car.

The second and less common type of contract is to be paid a fixed hourly rate, still employed on a temporary replacement contract.[71] The wages of the drivers within this arrangement vary, usually between NOK 150 and 160 per hour, although one driver I met, driver 12,

[71] Within both aforementioned arrangements, some drivers told me it is possible to attain a full-time contract, but these are not very prevalent.

earned NOK 280 per hour.[72] As a comparison, the minimum wage[73] in the construction sector is NOK 198 per hour for skilled workers, NOK 178 for unskilled workers. For passenger transportation with tour bus, however, – a line of work not too different from that of the Uber Black drivers in Oslo – the minimum hourly wage is set to NOK 154.57[74] (The Norwegian Labour Inspection Authority, no date).

The third type of contract is as self-employed, what the drivers call "partner". In this arrangement, the driver has to have a sole proprietorship and pay his own income and value-added taxes. I have only encountered one driver employed as a "partner". He told me that he shares the profits – i.e. what is left after Uber has taken their 25 percent cut – of his trips equally with the limousine company, which constitute 37.5 percent of the fare. He then has to pay value-added tax on his earnings,[75] which suggests that this might be the least economically lucrative arrangement. This arrangement is formally similar to how Uber Pop used to operate.

Another important feature of the Uber Black drivers' contracts, is that their terms are non-negotiable. After driver 13 had told me how dissatisfied he was with his working conditions, I asked if it was possible to negotiate a better arrangement with the limousine company. "No", he answered. "This is the deal I got. […]. If I had told them I wanted more, they would just have found someone else". When I asked them about their contracts and terms, other drivers told the same story. The only form of promotion or improvement in their position the drivers knew possible, was attaining a full-time contract, and none of them told me they had negotiated their terms of employment. The limousine companies provide the drivers with a fixed arrangement: Take it or leave it. Being happy to obtain some form of employment at all, they take it.

[72] Driver 12 is employed by a company primarily providing private transportation for its owners, but when they are not in need of being driven anywhere, he picks up other passengers through the Uber platform. "It is not something they do to earn money. They have enough. They all live in [an expensive neighborhood] and are millionaires. We drive their children, their wives and pick them up from parties. They are nice people", he said.
[73] While there is no legally defined minimum wage in Norway, there have been introduced minimum wages in some sectors through the generalized application of collective agreements, as a measure for preventing foreign workers from being paid less and working under poorer working conditions than Norwegian workers receive (The Norwegian Labour Inspection Authority, no date).
[74] This minimum wage is only applicable in situations where the transportation does not require a specific license, which it does for the Uber Black drivers.
[75] 25 percent of his profit, given that he earns more than NOK 50 000 annually (VAT act, 2009).

## Impugned flexibility: Time on the road

For most drivers, Uber Black is a full-time job, and driver 14 was the only driver I met who told me has another job besides driving Uber. The limousine companies usually give the drivers access to a car 12 hours five or six days per week and assign two drivers to each car so that the car is on the road 24 hours a day. Usually, one shift begins at 5 AM and ends at 5 PM, when the second driver takes the car until 5 AM.[76] How much each driver wants to work within those limits, is up to him. It is common to work the day-shift for two weeks and then the night-shift for two weeks. Driver 5 told me that he previously changed shifts every week, but prefers two weeks per shift, because "it takes time to get into the rhythm". The night-shift is the most lucrative, the drivers told me, especially Friday and Saturday night. While the weekdays are usually pretty quiet, it is during the weekends the drivers have most of their work, and thus make most of their money. According to driver 5, there are seasonal variances in demand as well. The summer months, for example, are bad: "People prefer to walk", he said. October, November and December, however, are better. "When it's cold, you get more trips. And then you have all the Christmas parties as well".

Twelve hours is a long time to stay on the road and a striking contrast to the three-hour shifts and 15-hour work-weeks Keynes predicted would be economically sufficient within hundred years in his 1930 essay "Economic Possibilities of our Grandchildren" (Keynes, 1963). Driver 4, who owns a limousine company employing drivers while also driving himself, told me that "of course, they don't drive for 12 hours. They have to feel fresh because we are responsible for the passengers".[77] However, some drivers told me they do work 12 hours straight. Driver 7, for example, told he works 12 hours, and driver 1 said he works 12 hours, six days per week and that if he wants, he can work the seventh as well.[78] I asked him if he does that often. "Yes", he replied. "Because then, I work seven days two weeks in a row, and then take three days off".

[76] Other drivers told me the shifts lasts from six to six.
[77] He continued: "It would not be profitable to have three drivers on each car. It's better to give a car to a driver for 12 hours and let the drivers decide when he wants to drive. They know when it is good to drive and when it is better to stay home, relax and be with their families".
[78] I cannot, of course, verify if the drivers actually work such long hours. Nonetheless, this is what they told me.

Waiting is an important feature of the day in a life of an Uber Black driver in Oslo – just as it is for traditional taxi drivers (Aarhaug, 2014; Oslo Economics, 2017). Driver 1 usually wakes up at 04.30. "At 5 o'clock, the guy, the night shift, comes to my home and he drives me to his house. I take the car, and if I get a trip, I just take the trip, otherwise I just wait", he said. Because, while the drivers get access to a car for 12 hours, there are not enough customers to fill the schedule with back-to-back customers, and the drivers often have to wait up to three hours for a customer to request a trip. Some drivers told me they usually work between 200 and 250 hours per months, others told me they often work as much as 300.[79] Driver 5 told me: "Right now, I have some debt, from gambling. I want to be done with it, so I work a little more than previously". However, he is still flexible, he said. "I can take a five-day break, and then maybe work hard for 12 days. Fridays and Saturdays, there is a lot to do, so then I work even more". This flexibility is important to the drivers, but is limited by the fact that they have to be there when the driver from the previous shift comes to deliver the car and they have to hand the car over to the next driver. This makes some of the drivers who previously drove Uber Pop look back with longing. Driver 15 said: "Back then, I could decide when to drive. I didn't have to get up at five", he told me. They can only "be their own boss" within the twelve hours the limousine company gives them access to a car. Their flexibility is further limited by their dependence on staying on the road waiting for requests for making a living. Discussing his freedom in choosing his own hours, driver 5 said: "Of course, I have to work, I have to earn money". For the commissions-paid drivers, their low share of the fares and dependence on requests render them reliant on driving a lot.

## The drivers' earnings

Based on data from The Norwegian Tax Administration, Alsos et al. (2017) find that the 1298 active Uber Pop drivers in Norway in 2016 combined earned NOK 114 million. 43 percent of the drivers earned less than NOK 25.000 that year, 14 percent earned between NOK 25 and 50 000, and only three percent earned more than NOK 300 000 (Alsos et al., 2017: 57). Alsos et al. (2017: 58) argue that the earnings of most of these Uber Pop drivers were so low that it would be impossible to live on those alone, and that the data from The Norwegian Tax Administration indicate that most drivers had additional sources of income, among others, benefits from NAV.

[79] A normal working week in Norway constitutes 40 hours (Working Environment Act, 2005: § 10–4, 1), or 160 hours per month.

The wages of Uber Black driver vary, both between drivers and between months. The rate of direct bookings, demand and how much they work, are factors determining what a driver earns. Driver 16 said he usually earns between NOK 30 and 40 000 per month.[80] "But", he told me, "it varies. It is not easy to predict". Driver 17 told me his monthly income was between NOK 30 and 35 000, and driver 5 estimated his monthly income to around NOK 45 000. Most, however, earned significantly less than the average monthly wage of Norwegian workers in 2017 was NOK 44 310, before taxes (Statistics Norway, 2018). None of the drivers told me they are compensated for working Sundays and holidays. When I met driver 1, he had earned NOK 18 800 the previous month, having worked 250 hours. "This is the reason I am thinking about finding a new job, I feel like it is too many hours and not so well paid", he told me. Driver 14 was also unhappy with his salary: "Uber takes 20 percent[81] – that's a lot. And then the limousine company takes their share as well. So there is not much left for me". Driver 10 was even blunter: "Uber takes 25 percent of the fare, and what do we get? Nothing". Driver 13 told me:

> I get 30 percent of what I drive in. And I work for 12 hours, six days per week. If I drive in [NOK] 2000, I am left with maybe 700. And then I have to pay taxes! So maybe I earn 300 or 400 driving for 12 hours. I have a lot of expenses – house, loan and so on. It is not a well-paid job. *(Driver 13)*

Driver 5, however, had a more relaxed approach to his wages: "Some days are very good, some days are very little. I knew this from the start, it's not a shock. There will be calm days, and OK, then I earn little. And today, there has been a lot. Overall, it evens out".

For most commission-paid drivers, an overarching concern is the lack of customers. When asking them how their day had been, the two most common answers I received were: "Very good. There has been a lot of customers today", and "Very bad. Nothing to do today". The number of customers is inextricably tied to their income and functions as the criteria for evaluating their day. Driver 8, however, does not seem to suffer from too little work: "There is always stuff to do. I could have worked 24/7", he said. But as the owner of his own company and having Uber only as a source of additional income, he is in a different position than most other Uber Black drivers in Oslo. He said: "I try to limit myself to 40 hours per

[80] Note that unless explicitly stated, are the numbers are before taxes.
[81] While he said, 20 percent, it was very likely a mistake. Uber's online resources as well as all the other drivers I have met state that Uber takes a 25 percent cut.

week. I can decide my own hours and I have very few Uber trips. If I am lucky, I am able to do two or three Uber trips during an eight-hour shift". Contrast this story to driver 18:

> 'How is your day?', I asked him. 'Not good', he replied. 'I have made only 4000 over the last four days. I have been working all the time, but only made 4000. I'm very annoyed. I'm thinking of finding a new job. I work between 280 and 300 hours every month, and I usually earn NOK 20 000. Not good!' *(Driver 18, fieldnotes from May 2018)*

The commission-paid Uber Black drivers in Oslo are entirely dependent on the market: As wages and customers served are as entangled as they are for them, their sole available strategy for earning more money is to stay on the road waiting for passengers to request a trip. Driver 4 told me that long trips are what every driver is waiting for: "Then we earn money", he said. "Even though you risk being stuck in nowhere without customers?", I asked. "Yes," he responded: "It is worth it driving back with 'air',[82] as we say".

The drivers employed on contracts with fixed hourly wages do not suffer under the same uncertainty as those paid commissions and are generally happy with their earning and work arrangement. "If there are no customers, I still get paid. I think that is better than commissions", driver 2 said. When I rode with driver 13, I told him that some drivers had fixed hourly wages. "Is that possible?", he asked. "I would have loved that", he said. "I would know what I was going to earn and not have to stress. 150 per hour? That is good wages".

Through commission-based contracts, Uber and the limousine companies secure themselves against demand-side shocks, placing the risk and consequences of "driving air" or waiting for hours on the drivers. While the flexibility of this arrangement in one sense endows the drivers with choices and freedom, the particular context of the Uber Black market in Oslo eventually leaves them with no other choice than to drive. As driver 1 said: "[I]f you don't work, you are homeless, [Uber] doesn't care about the drivers". However, the stories of the drivers who are paid fixed hourly wages or in a situation where the limousine company provides them with a sufficient number of customers to fill their schedules and consequently their wallets, illustrate that being an Uber Black driver can be quite different experiences.

[82] He used the expression "to drive 'air'" to denote driving without a passenger in the car, but only "air".

## Luxury as possibility and tensions

The market for luxury transportation provided Uber with a pocket of possibilities where their business model could prosper despite the impeding regulation of the passenger transportation sector in Oslo. Facilitated by the limousine companies, Uber got access to licensed cars and drivers and was able to establish their platform without compromising their business model. While it was the "trial project" Uber Pop that received the most attention in Norway, Uber Black was Uber's safest strategy for developing a foothold in Norway. Uber Black is often perceived as secondary to Uber Pop, but providing a luxury car service was in fact the business strategy Uber initially "pitched" to potential investors (Mannes, 2017).

In addition to being a lever for accessing the Norwegian market, by providing luxurious transportation Uber Black composes a work arrangement erupting with tensions. Over the course of my fieldwork, I became increasingly immune to the luxury of the cars I was traveling in. These were big cars, elegant – Mercedes-Benz S-class, Jaguar XF, Tesla Model X, BMW 7-series, with leather seats, embellishments in wood, sunroofs, and all available accessories. In the beginning, entering these cars made me feel like I was somewhere I did not belong. The luxury of the cars made them feel like a restricted space, an inaccessible and foreign world. In the fieldnotes form my second ride, I wrote:

> It feels weird that this car has come to pick me up. It is probably the nicest cars I've ever been in. […] The interior is dark and some kinds of blue neon lights. And there is something special about sitting in the back-seat. I feel like I have my own personal driver. *(Fieldnotes from March 2018)*

By the seventh ride, I noted that I had "gotten used to how nice these cars are". Uber characterizes Uber Black as "an exclusive limousine product where the cars keep a very high standard, and you can expect service in a league of its own" (Uber, 2016). While the drivers emphasize the nice cars as one of the aspects of the job they value, the aura of luxury of Uber Black – sustained partly by the drivers' shirt and suits – is almost antithetical to the work environment and economic conditions of the drivers on commission-based or "partner" contracts. Furthermore, the work arrangement of Uber Black in Oslo itself challenges the luxury of the product: Asking driver 13 how he felt driving such a nice car, he responded: "You know, this car is on the road 24 hours every day. It is a well-used car. If the driver who uses the car before me doesn't drive very carefully and take good care of the car, it will break".

Uber Black is shrouded in luxury, while many drivers are left in a state of frustration and dismay. Uber Black provides relatively cheap luxury for the customer; low wages and long hours for the driver, the immigrant, the hard-working family man trying to make it in his new home country. In Uber Black in Oslo, the drivers' immigrant bodies become glued to seats of these million-kroner cars. They drive, drive, drive, but can never escape the adversity of the luxurious cars.

# 6 Regulating Flexibility. Uber's Technological Work Arrangement

Having investigated the formal organization of labor in the Uber Black arrangement in Oslo, I will now turn to the techniques Uber employs to coordinate and control the drivers' labor. These techniques differentiate the work of Uber Black drivers from that of a traditional taxi driver. As features of the Uber platform, they are more or less the same on Uber Black as on Uber Pop or Uber X[83], but by being deployed in a different context, the technological work arrangement of Uber Black in Oslo has its own particular effects.

## Uber's algorithmic management

Both Srnicek (2017: 66) and Kenney and Zysman (2017) argue that the platform model enables new forms of control. Platforms are both recording devices and infrastructures guiding and influencing the conduct of their users. Since the platforms register all activities within their perimeters, they can automatically adjust the conditions on the platform to changes in the environment. Such feedback mechanisms are the basis for the modes of control enabled by the platform technology, what Lee et al. (2015) call algorithmic management. According to them, this is "one of the core innovations that enabled [services such as Uber and Lyft]" (Lee et al., 2015: 1603). In the case of Uber, they highlight three control techniques: Assignment of trips, dynamic pricing and bilateral ratings. These three techniques are also employed by Uber Black in Oslo.

### *Assignment of trips*

Uber matches drivers and passengers by sending the driver a request-notification and giving him or her 30 seconds to accept or decline based on the information they get: The passenger's name, position and average rating. While the driver can decline requests, they do not choose their passengers, but are algorithmically and automatically assigned work tasks. The drivers cannot see the passengers' destination, but are notified if the ride is longer than 30 minutes. This can make it difficult to plat their workday. Driver 5 told me that if he has a booking through the limousine company, he has to stop taking Uber rides one hour before, because "if

[83] Contrary to Rosenblat and Stark's (2016) analysis of Uber drivers in the US, neither the drivers nor available online resources indicate that drivers' acceptance rate is measured in Norway.

the passenger is going far, I can get problems with getting back in time for the direct booking", he said. However, concealing passengers' destination is an important feature of Uber, who wants to make sure that all passengers are picked up. As driver 4 said, "if the drivers were to see where the passengers going, only the long trips would be served".

Because of the general lack of customers and the fact that most Uber Black drivers are paid on commission, they do not have the luxury of being picky: The drivers usually accept every request they get. For them, the idea of declining a request is completely foreign: "I take everyone. On Uber Black, there is very little work, so we take everyone", driver 2 told me. Driver 19 told me he says no "only if I am at lunch". Their reluctance to decline requests illustrates the entanglement of the control techniques, work arrangement and features of the Oslo market.

*Dynamic pricing*

In a text explaining dynamic pricing to passengers, Uber writes:

> Uber's prices are dynamic. This means that the price a passenger sees is based on variables that can be changed over time. These variables include (but are not limited to) estimated time and distance for the expected route, estimated traffic, as well as the number of passengers and partner drivers[84] currently using Uber. (Uber, no date, f)[85]

Through what the company calls "surge pricing", trip fares are adjusted to fluctuations in supply and demand, as well as other concealed parameters. Uber writes that surge pricing "motivates more partner drivers to get on the road and drive to areas of the city where the demand for trips is higher than what the partner drivers are able to meet" (Uber, no date, f).[86] Former CEO of Uber, Travis Kalanick, argued that surge pricing is a technique for mirroring prices set by "the market" rather than Uber changing the fare (Brunstein, 2013; see also Hwang & Elish, 2015). Surge pricing establish "surge zones" where the total fare is multiplied with a "surge multiplier" of for example 1.2x, 1.8x, 2x, 3x et cetera, updated every fifth minute, increasing the fare based on the algorithm's calculations of supply and demand (see Chen et al., 2017: 2; Uber, no date, c). Thus, the price a passenger has to pay for an Uber

[84] Uber consistently refers to all its drivers as "partner drivers" (Uber, no date, e).
[85] M.t.
[86] M.t.

trip and consequently the commission-paid driver's earnings can vary from location to location and time to time.

Surges are manna to the drivers, representing an opportunity for making some sorely needed extra money. In Oslo, surges appear almost exclusively during the weekends, the drivers told me. "Every Friday and Saturday night, there is surge pricing, between 2x and 3x. Then there is a lot of money to be made", driver 16 said. To signal where there are surges, red zones show up on the maps the Uber drivers use. "Sometimes, the whole city becomes red, especially during the weekends. That means that there are a lot of customers all over the place. Other times, only some areas go red", he continued. The possibility of making more money is endearing to the drivers: "If I get a normal trip and I know that there is a surge, I might say 'no thanks' to that trip and wait for a surge trip", driver 1 told me.

The enthralling character of surges is enhanced by their rarity and opaqueness. "They don't happen that often", driver 19 said. When they do, however, they represent a state of exception and the possibility for the drivers to double their income. At the same time, surge pricing is a mysterious mechanism: "I don't really know how it works", driver 19 continued. "I think there is a surge when there are many users using the app in the same area, then the price is going up. I think. I'm not sure".[87] While the drivers know there probably will be a surge on weekend nights, the surge level cannot be foreseen, and the weekend-night surges can also be deceptive.[88] Driver 10 told me that there are many drivers who only work Friday and Saturday. This affects the dynamic pricing algorithm. According to driver 10, some weekends attract so many drivers that supply and demand are more or less evened out, and there will not be a surge. This made him exasperated: "We drivers decide nothing. Uber decides everything", he said.

When I drove with driver 6, he told he thought there would be a surge that night: "There is a concert at Fornebu tonight. I will drive out there in a few hours to pick up passengers. I think there will be a surge", he said. Hunting for surges like this, however, can be an ill-starred

[87] When I ordered my first Uber trip, I too experienced the unpredictability of the "surge pricing". When I first checked the price of the trip I was going to take, the Uber application told me it would cost between NOK 209 and 249, but when I a few minutes later were going to request a car, the price had increased to between NOK 375 and 459. I waited for ten minutes, and the price had decreased to between NOK 249 and 290.

[88] This unpredictability differentiates "surge pricing" from the practice of compensating for unlucrative with increased earnings.

strategy (see Rosenblat & Stark, 2016). “Last week”, driver 6, told me, “there was a concert there as well, and I went out to pick up passengers. But there were very few and no surge”. He had driven all the way out to Fornebu – a ten-kilometer ride from downtown Oslo – without finding the gold at the end of the rainbow. While surge pricing is alluring, promising increased earnings, the drivers can neither control nor trust the outcome of the mechanism.

Let us dwell for an instant on the term “surge”. While the word’s exact origin is unknown, there are some indications that it is derived from the Old or Middle French words *surgir* or *sourge*, meaning to “rise” and “swell”, used in the late 15th century to describe fountains and streams. Another possible origin is from the Latin word *surgere,* which means “ascend” or “attack”. *Surgere* is a combination of *sub* – “up from below” – and *regere* – “to keep straight” or “guide” (Online Etymological Dictionary, no date; Oxford Living Dictionary, no date). The etymology of the word Uber uses for its dynamic pricing algorithm gives a remarkably good description of how it is experienced by the drivers. It indicates an abrupt, powerful and rapid movement that cannot be controlled or contained, while also describing the process of leading something or someone somewhere, of making something happen. Like a flood, it is futile to pinpoint the precise origin, it just suddenly appears. You have to let yourself go with the flow. Like a surfer, the drivers can ride the wave before it fades away, trying to exploit the enigmatic rush.

*Bilateral ratings*

Just like many other platforms (see Gandini, 2016; Srnicek, 2017), Uber has established a rating system. After every trip, the driver gives the passenger between one and five “stars” as an indicator of how “good” the passenger behaved, while the same operation is voluntary for the passenger. This rating system is, according to Uber, a tool to evaluate their “Uber experience” (Uber, no date, k). As the ratings are linked to the passenger’s and driver’s profiles, however, the ratings constitute a judgment. These peer-to-peer reputation systems are often presented as mechanisms for “building trust” among strangers, one of the keys to making a system like the “sharing” or platform economy function (Botsman & Rogers, 2011; Krokan, 2018). By providing both buyers and sellers with information on others’ encounters with this user, one gets an impression of what he or she is like and what one is to expect before meeting the person. But the rating system is also a sanctioning mechanism, as Uber

"deactivates" drivers with an average rating under a certain standard (Uber, 2017a; Uber, no date, k).

However, the reality on the ground is that most Uber Black drivers in Oslo do not care very much about their own nor the passengers' ratings: All the drivers I met had high average ratings, usually between 4.7 and 4.9, and the lowest average rating I encountered was 4.5.[89] They told me they receive requests independently of their average rating and the passengers almost always behave in ways that make it unnecessary for the drivers to give them a harsh evaluation. For the Uber Black drivers in Oslo, in contrast to their American colleagues – for whom the rating system provides a more or less constant stress factor (see Ravenelle, 2017; Rosenblat & Stark, 2016; Scholz, 2017) – ratings are usually the last thing they need to worry about. Nonetheless, the rating system constitutes a form of control with significant effects on the drivers' work.

While Uber writes that the rating system is meant to measure "whether the quality of the service is consistent within Uber's standards" (Uber, no date, i), the drivers have developed their own schemes for rating their passengers. Driver 20 said he considers whether they showed up on time, "behaved properly" and were not eating in the car. "But", he told me, "I give all five stars because Norwegians are nice". One time, driver 20 said, there was a drunk passenger who was shaking the driver's seat and was trying to hit him. "I gave him one star", he said. He told me he has heard that if he gives a passenger one star, they will never be matched again. In practice, his scheme does not discriminate between different degrees of "proper" behavior: Either it is good – five stars – or it is bad – one star.

As noted, the drivers see the average rating of the passenger who requests a trip. Some drivers told me they use this information to decide whether or not to pick up a passenger. Driver 8, for example, checks the rating of the passengers "all the time" and does not accept requests from passengers with a rating below 4.5.[90] He said:

> So, if a passenger receives many low ratings, that means that you are not a person that I want to have in my car. It is terribly easy to get good ratings as a passenger, so if you receive low ratings, that means that you either dirty the car or are notoriously late, and

[89] Of course, this might also be because the drivers receiving a lower average rating had been deactivated.
[90] However, I had an average rating of 4.32 when I rode with him.

so on. And I don't want that kind of customers. (Driver 8)

Driver 7 had his cutoff point at three stars' average rating, "because that means that they have had problems with many drivers", he said. Driver 4 told me he considers an average rating under four "problematic, for sure". Driver 12, on the other hand, told me that ratings are insignificant: "They are purely symbolic. I don't care what people rate me. The ratings have nothing to say, I just try to be nice, but they affect nothing". Driver 10 too told me he picks up all passengers despite their ratings: "I have to say that the Uber customers are very nice", he told me. In his opinion, however, that the rating system plays an important role in making the passengers behave well: "You know that I will rate you, so you are a little careful", he argued.

The rating system incentivizes practices that result in good ratings and sanctions "bad" behavior, first and foremost through the threat of deactivation. Uber writes: "To ensure that riders receive a high-quality experience each time they request a ride, driver-partner accounts with consistently low ratings may be deactivated after receiving multiple warnings" (Uber, no date, k). My trip and conversation with driver 17 illustrate the effects of the rating system:

> We are driving up [X]gata. In the intersection below [X], a taxi has stopped in the right lane. We have to pass it and almost crash into a cyclist trying to overtake us on our left side. 'That is why we don't like taxis', he says and laughs. 'And the Somali drivers often argue with their passengers and shout. As Uber drivers, we have to tolerate everything. We have to be kind and silent, even on Saturdays when drunk passengers are screaming and making a mess.' 'Because you are being rated?', I ask. 'Yes, we have to be very tolerant, calm and patient'. (*Driver 17, fieldnotes form June 2018*)

In his opinion, drivers are dependent on the passengers giving them good ratings. In this sense, Uber's rating system renders the drivers docile: If they receive too many low ratings, their account may be "deactivated", and they are essentially fired. Thus, they have to be lenient and forgiving. While driver 17 claimed drivers are deactivated if their average rating falls below 4.3, Uber does not disclose this threshold. Driver 1, too is aware of this possibility: "If your rating is low, under four stars, they will talk to you". If your rating does not improve, he said, your account will be suspended. "It has not happened [to me], but I have heard about it", he told me.

To ensure good ratings, driver 20 sometimes opens the door for the passengers and always take their luggage. But for the most part, he told me, he just tries to be professional. "I think I do what is normal, you know. I just smile and I'm polite". I asked driver 19 if he would lose his job at the limousine company if his Uber account was deactivated. "Yes, but it doesn't happen so much [when you drive Uber Black], because you have a nice car", he replied.

While none of the drivers I met saw deactivation as something that could happen to them, the opaqueness of the system introduces fear and insecurity. The mere possibility of losing their job and uncertainty of how low their average rating would have to be for this to happen makes ratings *potentially* important. Driver 5 told me that in his opinion, the rating system "cleans out bad drivers." He said: "Driving Uber is a job and it should be taken seriously," and, according to him, the rating system enables an enforcement of such criteria. None of the drivers I met told me they had been contacted by Uber due to low average ratings. For them, the consequences of low ratings can be understood as always present but not manifesting themselves as a daily struggle or concern. This is largely due to the fact that very good ratings – of drivers and passengers alike – seems to be the norm. Uber writes that "most passengers give a five-star rating unless they had a specific problem with the ride" and that "a rating of one star usually means that the passenger had a serious problem with the driver"[91] (Uber, no date, l). And as we saw above, the drivers' rating of the passengers reflect the same logic, and anything below five stars then essentially is a punishment.

When five-star ratings are the norm, deviations become increasingly noticeable. I asked driver 1 how he feels when he gets a low rating: "I feel bad and I feel a little bit… You don't feel very good when your rating is going down. You feel a little bit stupid and like 'what is going on' [laughs]". Despite the limited practical significance of the rating system for the function of Uber Black in Oslo, its phenomenology should not be underestimated. The duality of the rating system as both purely symbolic and simultaneously potentially hugely consequential creates a tortuous situation. Neither drivers nor passengers experience the actual effects of their ratings in their everyday lives. For the most part, they are just there, but so is the potential wrath of the ratings. All drivers know that they *can* be deactivated and lose their job if their ratings plummet.

[91] M.t.

In conducting my fieldwork, I myself experienced the impact of Uber's rating system. As I formally held the role of a passenger when meeting drivers, I too received between one and five stars after every trip. In the beginning, I felt the comfort of a clean five-star average rating, but in just a handful of trips, I saw my average rating slowly drop, reaching its lowest point at 4.32. "*I get surprisingly sad and anxious. Do I do something the drivers dislike? Is there anything I can do to make them more comfortable?*", I wrote in my fieldnotes (April 2018). My first thought was that I had done *something* wrong and that I had to fix it, without knowing what nor how. By taking the form of a judgment, the bilateral rating has an affective dimension and psychological consequences. I experienced the ratings as an evaluation of my person, so when my average rating decreased, I naturally thought there was something amiss with *me*. As the rating system enables an evaluation of the service provider and passenger, it breaks down the distinction between the sphere of labor or consumption and the private: It is a rating of the person.[92] Adkins argues that the so-called new economy is characterized by measuring employee efficiency "not, for example, in terms of units of production or quality of products, but in terms of which relate to customers", such as consumer satisfaction (2005: 122). Uber provides a good illustration of this reorientation, as drivers, but, importantly, also passengers, are dependent on favorable ratings from the counterpart for being able to continue to use the platform. Even with my relatively low average rating, however, I never had any problems getting drivers to pick me up. I continued as before, and my average rating increased slightly every trip, stabilizing at 4.65.

## The economists' view: Uber as a better market, or, how to control flexibility

I will now leave the drivers on the road, and turn to the problems Uber's platform endeavors to solve, as a contextualization of these techniques for algorithmic management. As Carol Bacchi would ask (2009): If these techniques are the answer, *what is then the problem?* In the following, I will review eight publications and analyses commissioned by Uber or written by the company's economist,[93] to explore how they understand Uber, the drivers, the platform's

[92] This is further illustrated by Uber explicitly discouraging passengers from grounding their ratings on the price of the service, as this is outside the control of the drivers (Uber, no date, l).

[93] Jonathan Hall is Head of Economic Research, Legal and Public Policy at Uber and Cory Kendricks works in the company as a data scientist (Hall et al., 2015; Angrist et al., 2017), as do Daniel T. Knoepfle (Hall et al., 2017), Emily Oehlsen (Chen et al., 2017), Guy Levin, Santosh Rao Danda (Berger et al., 2018) and Peter Cohen (Cohen et al., 2016). M. Keith Chen has been Head of Economic Research at Uber and developed the surge pricing algorithm, and Michael Sheldon was a summer intern at Uber (Chen & Sheldon, 2015: 1), while Alan B. Krueger has been a consultant to

algorithmic management and the problems these techniques are meant to solve.[94] To highlight some of the premises and assumptions into which these economists are socialized, I begin by giving a brief summary of Philip Mirowski and Edward Nik-Khah's (2017) overview of the changes within the profession's view of markets and themselves since World War II.

Mirowski and Nik-Khah argue that economists from the middle of the twentieth century became increasingly "wrapped up in the image of The Market (or else the agent) as a processor of information or knowledge" (2017: 36). This view developed in dialogue with Hayek's (1945) argument of the market as the supreme information processor.[95] Mirowski and Nik-Khah sketch out the changes in economists' conception of the market and their own role, and three different views within these. First, from conceiving markets as more or less universal and "devoid of any institutional specificity" through the view that markets came in a few formalized configurations, individual markets are now often understood as "algorithms – and like algorithms may serve a variety of purposes" (Mirowski & Nik-Khah, 2017: 157). Second, economists went from seeing individuals having important knowledge about the economy and themselves as "assisting the government in collecting and utilizing it" to conceptualizing the agent as possessing inadequate knowledge and their own task as guiding "the participants in inferring true knowledge", and finally viewing the market as functioning independently of what people know, assigning themselves the task of building markets producing the desired outcome (Mirowski & Nik-Khah, 2017: 158). These changes, Mirowski and Nik-Khah argue, made economists increasingly oriented towards designing markets that would "help agents act more rationally" (2017: 129).[96]

Uber is reliant on economic theory and research to design its market, and the economists' calculations form the basis for the construction of the technological conditions under which the drivers work. Simultaneously, Uber's economists' analyses constitute a narrative of Uber as a "better" and more efficient system for organizing transportation. These studies thus provide insights into how Uber "thinks" about its drivers, customers, market and operations.[97]

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Uber (Hall & Krueger, 2017).

[94] See Häring (2017) for a discussion of Uber's use of commissioned research.

[95] For a review of the changes in Hayek's own understanding of information, see Mirowski and Nik-Khah (2017: 66–72).

[96] They highlight Thaler and Sunstein's *Nudge* (2009) as a good example of this way of thinking.

[97] However, most of this research is carried out in the United States and on Uber X. Thus, some of the findings are not necessarily generalizable to a Norwegian context and the specific arrangement of Uber in Norway.

First, the flexibility of workers in Uber's and "Uber-style" arrangements is a major theme in the Uber economists' studies (see for example Chen et al., 2017; Hall & Krueger, 2017; see also Guda & Subramanian, 2018;[98] Lam & Lui, 2017[99]). Hall and Krueger write:

> After driver applicants qualify to partner with Uber, they are free to spend as much time as they like offering their services to passengers in any given month. Whether drivers access the app on any given day, and when they decide to do so, is completely up to the drivers' discretion. (Hall & Krueger, 2017: 2)

Chen et al. argue that Uber, by allowing drivers to work whenever and as much or little they want, offer workers flexibility, both in terms of customizing their schedule and adjusting it throughout the day. They write that Uber drivers "benefit significantly from real-time flexibility, earning more than twice the surplus they would in less flexible arrangements" (Chen et al., 2017: 2). Hall and Krueger find that the hours Uber drivers spend driving vary from both day to day and week to week, "depending on workers' desires in light of market conditions" (2017: 2). Chen et al. observe a similar variance in labor supplied by Uber drivers, and write that Uber's arrangement allows the driver to choose not to work if the cost of driving becomes too high – i.e. an increase in their reservation wage, the lowest wage a worker will accept for their labor (Chen et al. 2017: 4). They argue that workers adapt their "work schedules to unpredictable shocks to reservation wage" and claim that while Uber-style arrangement "may have important downsides relative to the traditional careers they supplant, we expect that flexibility will be an important source of value in such arrangements" (Chen et al., 2017: 41). The flexible arrangement is hypothesized as the reason why Uber drivers in London report a higher level of well-being than other workers – but, importantly, also higher levels of anxiety (Berger et al., 2018).

But flexibility can be a problem: What if workers do not supply labor when and where they are needed? Chen and Sheldon write: "Given this flexibility, a central question is the extent to which firms can influence the supply of services on their platform, particularly in the short term?" (2015: 2; see also Zha et al., 2017[100]). The answer is surge pricing.

Chen et al. write that if "there are time periods for which there is on average a substantial disamenity of driving, supply and demand should lead to an equilibrium of higher expected

[98] Not affiliated with Uber.
[99] Not affiliated with Uber.
[100] Not affiliated with Uber.

wages during the undesired hours" (Chen et al. 2017: 4). And it is this new equilibrium price Uber is able to "mirror" with surge pricing, as we saw Travis Kalanick argue in above. Neoclassical economic theory expects drivers to work longer when increased fares raise their income. Because driving Uber becomes a better deal, workers will supply more hours (Chen & Sheldon, 2015). The so-called income-targeting hypothesis, on the other hand, expects that drivers will work less when the fare increase because they sooner hit their targeted income. Camerer et al. (1997) found evidence of this hypothesis among taxi drivers in New York City. To answer which of these assumptions holds in the case of Uber, Chen and Sheldon (2015) study how responsive the supply of labor is to changes in the price of the service, and thus also the drivers' earnings, and find significant and substantive positive supply elasticities. When prices are surged, Chen and Sheldon find that drivers "drive longer and provide more trips" (2015: 2) and "choose to extend their sessions and provide significantly more rides on the Uber platform" (2015: 13). In addition their research indicates that surge prices decrease the rate by which drivers turn off the app. These findings go counter to the "income-targeting" hypothesis, which, they argue, suggest that "dynamic pricing, at least in the case of Uber, significantly increases the efficiency of the ride-sharing market" (Chen & Sheldon, 2015: 15). Hall et al. (2017) similarly find evidence for the neoclassic assumptions about labor supply.

In an Uber-commissioned study from the University of Chicago from 2015, Uber economists Jonathan Hall and Cory Kendrick, together with Chris Nosko of the Booth School of Business at University of Chicago (Hall et al., 2015) elaborate the problem of flexibility:

> Driver-partners are free to work whenever they want and must be incentivized to provide rides. Under these conditions, economic theory tells us that using prices to signal to riders that rides are scarce and inducing driver-partners to forgo other activities will close the gap between supply and demand and lead to improved outcomes for both riders (as a whole) and driver-partners. (Hall et al., 2015)[101]

Using a sold-out concert at Madison Square Garden in 2015 as a case for studying the effects of surge pricing, they find that the number of app openings increased to four times the normal after the show. This created a surge multiplier of between 1.2 and 1.8 times the normal price due to the increased demand relative to the number of available drivers. According to the authors, this increase in price signaled to drivers that this was a valuable time to work, and

[101] Unpaginated report.

the supply of drivers increased by up to two times the pre-surge level. While they find a very large increase in app openings, the actual requests did not increase proportionally, and argue that surge pricing is a net win for riders because more passengers will be able to find a car and had the effect of allocating "rides to those that value them the most" (Hall et al., 2015). Hall et al. (2015) find that all the riders who were willing to pay the increased fare were able to get a ride and wait time did not increase substantially. In addition, the surge increases drivers' hourly income: According to their calculations, drivers would have made 13 percent less without the surge multiplier (Hall et al., 2015).

Surge pricing illustrates the paradox of flexibility in the case of Uber. While the drivers' freedom to set their own schedules is central to Uber's commercials and self-presentation (Ravenelle, 2017), it simultaneously constitutes a potential problem for the efficiency of the service. By calculating prices in real time, surge pricing is meant to resolve these "inefficiencies". If the drivers' choices of when and where to work do not correspond to when and where Uber needs them, surge pricing incentivizes new choices. For Uber, drivers are thus "free", but at the same time governable through economic incentives: They can be made to make the "right" decisions for creating well-functioning markets. As Hall et al. (2015) wrote above, economic theory gives Uber the tools needed for establishing equilibrating markets. Drivers are in this narrative understood as passively "responding" to prices. The economists view Uber drivers as free but docile and controllable through prices. Here, a duality in the notion of flexibility is evident. On the one hand, the economists view Uber drivers as flexible in the sense of being free to choose their own schedule and work as much or as little they want. On the other, the economists write that the choices of drivers can be and indeed are influenced: The drivers are simultaneously flexible in the sense of being malleable. Their free choices are not fixed, but rather a point of continuous modulations, whereby the drivers are made to take, in sum, "better" decisions.

*A better market*

The economists understand "Uber-style" markets as "better" markets. The economists argue that these markets create different forms of "surpluses". Chen et al. estimate the expected surplus of Uber drivers in the United States, operationalizing driver surplus as the excess of wage over reservation wage (2017: 28). They argue that since the Uber arrangement enables drivers to respond to unpredictable "shocks" to their reservation wage and work only in

"those hours when reservation wages are lower than expected earnings", Uber drivers "benefit significantly from real-time flexibility, earning more than twice the surplus they would in less flexible arrangements" (Chen et al., 2017: 2). Cohen et al. (2016) use the surge pricing algorithm and individual data on Uber customers to estimate demand elasticity and consumer surplus – i.e. the difference between what the customer is willing to pay for a good and what she actually has to pay. They argue that for each dollar spent by consumers on the Uber X service in the United States in 2016, a USD 1.60 consumer surplus was generated, and estimate the overall consumer surplus of Uber X in the US in 2015 to 6.8 billion USD. Cohen et al. write: "One day's worth of consumer surplus, by our estimates, is about $18 million. If Uber were to unexpectedly disappear for a day, that is how much consumers would lose in surplus" (Cohen et al., 2016: 21).

Comparing "Uber-style" work arrangements to traditional taxi markets, Angrist et al. (2017: 1) argue that Uber's flexible work arrangement renders the Uber drivers better off than traditional taxi arrangements. Chen et al. estimate the labor surplus of Uber drivers compared to the surplus of workers in a traditional taxi arrangement. In Uber's arrangement, they find that the labor surplus account for "40 % of total expected earnings, or $150 per week on average" and that "[c]onstraints on the ability to adapt to more shock have large effects on expected labor surplus; eliminating this ability reduces labor surplus by more than two-thirds". In a "taxi" style arrangement where drivers only can decide whether or not to work on a daily basis and must work an eight-hour shift, Chen et al. (2017: 41) find that the expected labor surplus is reduced to "one-eighth of the Uber arrangement".

Furthermore, the platform markets are conceived as "better" is because they are auto-corrective. Since the workers are responsive to economic incentives, Uber, as well as similar platforms, are able to use feedback mechanisms to construct markets that adjust to changing conditions by themselves. Surge pricing enables a real-time adjustment of trip fares to by itself equilibrate the fluctuating supply and demand of drivers and riders: When Uber observes increases in app openings and trip orders in an area, the price of a trip in this specific zone goes up in an effort to attract drivers and provide rides for all customers who are willing to pay the increased fare. Bilateral ratings also introduce an auto-corrective dimension to Uber's platform. While some commentators view the mutual rating of buyer and seller as a mechanism for creating "trust" in a community of strangers (see Botsman &

Rogers, 2011; Krokan, 2018), Ke et al.[102] (2017) argue that the rating of a service provider reveal the quality of the service, while ratings of a consumer reveal the cost to the service provider to serve her. Low ratings or negative reviews of consumers give service providers indications that this consumer is costly to serve. They write that if a seller thinks it is possible to find "better" buyers, "it is only rational for him to decline applications from […] costly consumers" (Ke et al., 2017: 1). Compared to traditional service markets, Ke et al. hold that such marketplaces, often referred to as "peer-to-peer" markets (Einav et al., 2016; Krokan, 2018), have an advantage by continuously monitoring users and their reviews of transactions, reducing information asymmetries and enable services that would not have been possible in traditional offline markets given the prohibitive search cost (Ke et al., 2017: 2).

In general, the ability to respond to changing market conditions is highlighted as an important feature of so-called peer-to-peer markets as well as platforms (Einav et al., 2016: 619[103]; Srnicek, 2017). With surge pricing and bilateral ratings, Uber has established a market that automatically "corrects" itself. Since the neoclassic assumptions about earnings and work hours are found to be true – i.e. that drivers work more when their potential earnings increase (see Chen & Sheldon, 2015; Hall et al., 2017) –, this narrative cements economic incentives as potent tools establishing "better" markets than what would be the case without surge pricing. Given their flexible work arrangements, workers have to be led to take the "right" decisions and a significant amount of control has to be initiated to ensure the efficiency of the market. In addition, bilateral ratings institute a decentralized control whereby every user – "seller" and "buyer" alike – take responsibility for securing the smooth functioning of the market. The combination of the two feedback mechanisms surge pricing and bilateral ratings enable measures for establishing a market that extracts data and automatically adjusts the conditions in order to continuously reinstall equilibrium in a fluctuating and unpredictable environment.

[102] Not affiliated with Uber. An interesting finding in my short review, is that the rating system is almost never discussed by Uber's economist.
[103] Not affiliated with Uber.

# 7 Beyond Technology

In the two previous chapters, I have investigated how Uber adjusted its business model to the regulations of the Norwegian passenger transportation sector; the formal work arrangement of Uber Black in Oslo, working environment and everyday lives of the drivers; as well as Uber's technological work arrangement and the economists' understanding of Uber's market. In this chapter, I will turn to the third research question introduced at the outset of this thesis and explore what Uber Black in Oslo can tell us about the platform economy more generally and how this case illustrates tendencies and tensions in the implementation of ICT in the economy and world of work. I will conclude this thesis with a few notes on the potential future of the platform economy before summarizing my findings and argument.

## The platform as regulation

Karl Polanyi ([1944]2001) argued that the political project of liberalism was the establishment of self-regulating markets and the organization of society according to these markets' logic. While traditional markets were embedded in social institutions, regulating the economy based on principles external to the market, Polanyi argues, the market economy is "an economic system controlled, regulated and governed by market prices (2001: 71). Individual exchange, which was an important feature of primitive societies where the economy was not subordinated to the market logic, does not in itself lead to the emergence of markets, Polanyi argues (2001: 64). A market rather has to be implemented and its logic institutionalized. According to Polanyi, the idea of a self-regulating market economy is based on the assumptions that prices alone govern both human behavior and production, that nothing – no state nor politics – prevents the formation of the markets, and that the sole source of profits is sales (Polanyi, 2001: 72).[104]

In a market economy, commodities are objects produced to be sold on a market, Polanyi writes (2001: 75). While labor, land and money constitute fundamental elements of production, these are, according to Polanyi, in fact *not* commodities:

> Labor is only another name for a human activity which goes with life itself, which in

[104] Polanyi, writing in the 1940s, was concerned with the classical liberals' understanding of the market. See Mirowski and Nik-Khah (2017) for a history of how economists have conceived the concept of the market.

> its turn is not produced for sale but for entirely different reasons, nor can that activity be detached from the rest of life, be stored or mobilized; land is only another name for nature, which is not produced by man; actual money, finally, is merely a token of purchasing power which, as a rule, is not produced at all, but comes into being through the mechanism of banking or state finance. (Polanyi, 2001: 75–6)

Thus, "[t]he commodity description of labor, land, and money is entirely fictitious" Polanyi concludes (2001: 76; see also Streeck, 2016: 24). But it is nonetheless according to this fiction labor, land and money are organized in the market economy. Polanyi continues: "[N]o society could stand the effects of such a system of crude fictions even for the shortest stretch of time unless its human and natural substance as well as its business organization was protected against the ravages of this satanic mill" (2001: 77).[105] According to Polanyi, this dis-embedding of economic activity immanent in the establishment of self-regulating markets and the subordination of society to the principles of the market economy will inevitably trigger self-defense mechanisms – counter movements –, rendering the project of completely self-regulating markets purely utopian. In industrial societies, labor, land and money then emerge as "issue areas for the formation of institutions of crucial importance" Mjøset writes (2015: 26). These elements had to be protected from market mechanisms, Polanyi argues, and – responding to the liberal offensive in the post-war period – decommodifying institutions rose to the task in Western Europe.[106]

Uber's global strategy is one of experimentation, testing the boundaries of regulatory systems and adjusting its business model to the particular contexts when necessary. As a privately held company with billions of dollars in venture capital and no profitability requirements (Horan, 2017) as well as a versatile platform model at hand, Uber tries to establish its own design of the transportation market within or beside the institutional configurations regulating passenger transportation and the labor market. While the idea that the sharing economy represents a re-embedding of the economy is prevalent among some scholars (see Nelms et al., 2018; Pais & Provasi, 2015), the review of the economists' understanding of Uber in chapter six revealed that the ideal of a self-regulating market is still alive and guiding Uber's

[105] According to Mjøset, this argument must be revised: "[T]his Durkheimian streak is a theoretical deficiency of [Polanyi's] framework, forcing him to conceive of society as an organism that can die. The point, however – commonplace in all criticisms of functionalist social science – is that societies do not die, they change, and any 'threat' will lead to some kind of response" (Mjøset, 2015: 36).

[106] Commodification-decommodification is a key dimension in Esping-Andersen's typology of welfare state regimes (1990), describing the degree to which social welfare is organized as entitlements or as commodities, and was developed with explicit reference to Polanyi.

market design. With the help of ICT, these economists argue, self-regulating markets can be established and thrive, in a sense realizing Hayek's idea (1945) of the market as the ultimate information processor, functioning independently of the agents' knowledge.

Rather than as neutral technology and a blank canvas on which the users can interact freely, as Uber claims to be (Curia, 2017; Uber, no date, h), Zysman and Kenney (2018: 62) argue that platforms should be understood as devices structuring the actions of its users. From such a perspective as well as the analysis laid out in the two previous chapters, Uber's platform is a regulatory infrastructure, which can be conceptualized as a privately owned regulation of the passenger transportation market, competing with or parallel to government regulations, depending on the context. Uber's platform – in its ideal form as well as its current Oslo manifestation – makes it possible to coordinate the market, determine prices and consequentially the earnings of the commission-paid drivers, encourage and sanction behavior, and establish the criteria for both market entry and exclusion. These measures correspond to the government regulation of the Norwegian taxi market (see Aarhaug, 2014). In the case of Uber Black in Oslo, however, the platform's materialization was dependent on the drivers and cars attaining licenses from the local government.

Uber's algorithmic management automatically structures the choices available for the drivers. Dynamic pricing adjusts the fare and wages in real time to the ever-changing fluctuations in supply and demand, making this market "better" than markets where prices are negotiated by the agents themselves, and incentivizes drivers to supply their labor power when and where Uber needs them to. Price mechanisms are thus used to automatically regulate both wages and working hours, areas that traditionally are regulated by law and collective agreements. As the economists argued in chapter six, surge pricing makes driving Uber "a better deal" when the drivers' labor is in demand, and less lucrative when it is not, encouraging a decrease in the labor supply. Hence, Uber's platform is more than a marketplace, and should rather be seen as a market, an institution governed by price mechanisms in Polanyi's conceptualization (2001: 71). However, Uber's market design is not restricted to price mechanisms. In addition to determining the criteria for market entry, such as the required characteristics of the cars and drivers (see Uber, no date, g), the platform's regulatory measures combine economic incentives with algorithmic trip assignment and a sanctioning regime aiming at ensuring the proper behavior of both buyers and sellers. Uber's platform thus regulates the product itself

as well as the supply side[107], automatically initiating non-negotiable measures. To establish a market as an institution, social relations have to be recessed in an economic system, Polanyi argues (2001: 60). In this sense, the platform functions as a market machine, organizing economic activity according to its own laws: Algorithmic trip assignment, dynamic pricing and bilateral ratings. These regulatory structures do not arise as a self-defense mechanism preventing the subordination of labor to the logic of the market, but – as I will elaborate below – as necessary measures for coordinating flexible workers under fluctuating conditions.

Uber's market regulation can be understood as privately owned in the sense that it is controlled solely by the platform and not concerned with the government regulation of the market to any extent beyond what is necessary for operating legally.[108] In the case of Uber Pop in Oslo, the platform directly challenged the government's market regulations. In practice, Uber's platform is a market design adjusted to the specificities of the US labor market and American political-economic conditions and thence spread by the company to other regulatory regimes. All the measures that in the Norwegian regulation of passenger transportation are distributed to different bodies of government – except licensing –, are in the case of Uber Black in Oslo concentrated in the platform. In this sense, conceiving the platform as a market regulation highlights the political dimension of the platform economy and indicates a transfer of regulatory power from the government and municipalities to private companies.

## The platform as a form of control: From a digital technology to a political technology

Arne Krokan (2018) argues that what characterizes the so-called sharing economy and the platform as a business model, is a transition away from hierarchy as the principles for structuring organizations. He writes:

[107] As we saw in chapter six, however, the dynamic pricing algorithm is also aimed at regulating the demand side by allocating Uber trips to the passengers who "value them the most"(Hall et al., 2015).
[108] While some sectors of the Norwegian economy are controlled by single-actor market regulators, such as the market for agricultural commodities (Regulation on the market regulation for increasing the revenue of agricultural commodities, 2008), books (Regulation on the exemption from The Competition Act § 10 for cooperation on the sale of books, 2014) and beverages with an alcohol content exceeding 4,75 percent (Regulation on the AS Vinmonopolet's purchasing operations, etc., 1996); these have all been assigned their position as market regulators by the government. This is not the case for Uber.

> Hierarchies were created to reduce organizational transaction costs, but now we experience that the platform organization of the sharing economy has lower transaction costs than hierarchies. This renders these service not dependent on the same types of control mechanisms as equivalent services in the traditional economy because the markets are more open and transparent and fundamentally based on trust among the parties.[109] (Krokan, 2018: 268)

However, my analysis suggests that Uber's platform is not open nor transparent, neither is it based on drivers and passengers trusting each other: At the foundation of Uber's platform are asymmetries of information and power. Furthermore, the techniques Uber employs for regulating the market are fundamentally techniques for promoting particular behaviors, constraining other. Rather than being solely a digital technology, the platform is a political technology, i.e. a mode of controlling people and conduct.

In his book on Foucault, Gilles Deleuze[110] writes that "machines are social before they are technical. Or, rather, there is a human technology which exists before being material technology" (Deleuze, [1986]2006: 34). A technology, Deleuze argues, is always produced and put to work within particular social arrangements, not their sole cause (see Bogard, 2009; Savat, 2009). Furthermore, the development and implementation of a technology are driven by a social rather than a purely technical end. Deleuze elaborates:

> It's easy to set up a correspondence between any society and some kind of machine, which isn't to say that their machines determine different kinds of society but that they express the social form capable of producing them and making use of them. (Deleuze, 1995b: 180)

Following this argument – also made by Perez, although she reverses the causal chain –, the platform is first and foremost an illustration of the social formation within which this technology emerged and is employed, and can thus provide important insights into the mechanics of the platform economy more broadly.

A technology thus has a double social dimension: It both emerges within a particular social formation and at the same time as it has social effects. In this perspective, the platform should be understood as developed and implemented within an economic, political and social context based on particular ideas and aims. The two fundamental principles of the platform

[109] M.t.
[110] For an early assertion of the sociological value of Deleuze's – in collaboration with Felix Guattari – thought and concepts, see Østerberg (1988: 226–33).

are extraction of data and the continuous adjustment to changes in the environment (Srnicek, 2017; Zysman & Kenney, 2018) and, according to Uber's economist, constitute a tool for designing "better" markets. Its automatic regulatory measures are not restricted to price mechanisms and are employed to organize the labor process itself. Hence, the platform can be seen as a form of control responding to the problems arising from allowing the drivers to work whenever they want, and Uber's algorithmic management is not merely a digital technology, but simultaneously a political technology, essentially leading the drivers to make the "right" decisions without the platform having to directly interfere.[111] This argument challenges Krokan's (2018) description of the platform as the opposite of hierarchies. On the Uber platform, the drivers are subjected to conditions over which they have very little – if any – influence and most drivers I have met do not even know exactly how these techniques work, but they appear to the drivers as a tenacious determination of the conditions to which they have to adhere.[112] Recall driver 10's assertion: "We drivers decide nothing. Uber decides everything."

However, the effects of this platform-based form of control cannot be understood separately from the specific conditions of the Oslo market. First, the general lack of customers prevents the drivers from declining requests from low-rated customers. The drivers are happy to get a request at all. As five-star ratings are considered the norm, the rating system and the threat of deactivation functions as a potential menace, always lurking in the shadows. The relation between the driver and the passenger thus becomes pivotal and more than a mere relation among equal agents in a market. Second, surge pricing primarily comes into effect during the weekend in Oslo. They sometimes make an appearance on other days as well, but the drivers never know beforehand. The drivers struggle to mine this state of exception, for its mechanics are obfuscatory. The rarity and unpredictability of the surges are vexatious for the drivers, who need the extra money provided by the surges. Similarly to the drivers' contracts, it is a system with which you cannot negotiate but imposes its decision unsought and without

[111] Deleuze uses the fitting analogy of a highway in describing such a form of power: "In making highways, for example, you don't enclose people but instead multiply the means of control. [... P]eople can drive infinitely and 'freely' without being at all confined yet while still being perfectly controlled" (Deleuze, 1998: 18). The platform, then, is a mode of power that, contrary to Foucault's disciplinary power (1994, 2015), does not mold the individual once and for all, but continuously adapts and implements suitable measures (see Deleuze, 1995a, 1995b; Oppegaard, 2018).

[112] Østerberg called this the double character of the machine – both a "natural" and an "acting" thing: "I have to treat it as if it acts, and it treats me as a thing, although I am acting and it that is a thing, so you could just as well say that it operates me as that I am operating it" (1993: 30 [m.t.]).

warning.

## Uber and the techno-economic paradigm of the ICT age

Perez' model provides an avenue for a possible elaboration of the homology between the platform and a social formation, the techno-economic paradigm of the ICT age. At the foundation of the platform model are the technologies and infrastructures developed through the diffusion of the ICT revolution. The "big bang" in microelectronics enabled technologies such as mobile phones, computers, software and digital control instruments, in addition to the infrastructures of Internet and GPS connecting devices, all embodied by the smartphone – the core device of Uber's business model –, making it possible to track and connect drivers and passengers in real-time. Moreover, the collection of data feasible within such a technological environment opened up for a hitherto impossible real-time market regulation, as well as new forms of control.

Perez highlights two aspects of particular importance for an analysis of techno-economic paradigms: The common principles emerging among the key actors and the similarities in the changes of institutions first visible among the new businesses deploying the new technology (Perez, 2003: 16). As this is a single-case study, I cannot do such a comparative and historical analysis, but only discuss what we now know about the platform model in light of Perez' basic characterization of the techno-economic paradigm of the ICT age. Furthermore, I will avoid seeing the micro as a mere expression of the macro, as Burawoy warns (2000: 27), but rather investigate how the reorganization Perez argues is in motion manifests itself in one particular case situated within the Norwegian regulatory model.

As we saw in chapter three, Perez describes the ICT age as being characterized by information-intensity, decentralized integration, knowledge as capital, heterogeneity, diversity, adaptability, market segmentation, specializing combined with scale, globalization, inward and outward cooperation, and instant global communication (Perez, 2003: 18; see also Freeman & Louçã, 2001: 325ff). As these principles are embedded in the ICT revolution, they will, according to Perez' model, be translated into "common sense" in the techno-economic paradigm this restructuring brings. The ICT-logic will characterize the business models directly associated with the ICT revolution, and subsequently become the dominant organizational principles and management models for the whole economy and social

institutions (see Bodrožić & Adler, 2018).

Based on the new technologies of the ICT revolution, Uber's platform model gives rise to an algorithmic management that first assigns workers with tasks based on where they are; second, continuously calculates the supply and demand, adjusting the prices to changes in the market; and third, decentralizes sanctioning and incentivize good behavior through the rating system. The platform model embodies a double meaning of adaptability. First, platform companies such as Uber can adapt their business model to the different regulatory regimes. Owning essentially no fixed capital but solely the digital platform (Srnicek, 2017), Uber can easily establish its operations all over the world.[113] Second, the platform itself is adaptable. By continuously collecting data, the platform adjusts its parameters to ever-changing conditions. Information-intensity and decentralized integration thus materialize in the case of Uber Black in Oslo as control techniques based on instant communication through the Internet and GPS. The platform is self-regulating, not, however, in the sense of a Polanyian liberal utopia, as the platform is not based on price mechanisms alone, but as an auto-corrective structure instituting measures for re-asserting equilibrium in a fluctuating environment. While Perez argues that we currently are at the turning point of the ICT revolution (Perez, 2009; Perez & Leach, 2018), the proliferation of the platform model – as the organizational principle of the techno-economic paradigm of the ICT age – might mark the beginning of the deployment period (see Perez, 2003: 36). However, Perez remarks, the transition to the deployment period and enabling of the "golden age" depends on the implementation of appropriate political initiative (2003: 52–3).

## Integrating a surplus population

The digitalization of the economy is often framed as the iconoclasm of jobs. While the specific estimates vary, automation and robotization are thought to render an unknown amount of people without work sometime in the future (Brynjolfsson & McAfee, 2014; Frey & Osborne, 2013; World Economic Forum, 2016). Simultaneously, many of the refugees coming to Europe from war and destruction find themselves evaluated as inapt for being integrated into the "knowledge-intensive" and tight labor markets of the West (see Shammas, 2018). In Norway, a study of discrimination in the labor market found that when sending

[113] However, over the last two years, Uber has closed down and sold off their business in China, Russia and Southeast Asia due to competition from local companies (Mogg, 2018).

otherwise identical job applications, applicants with a traditionally Norwegian-sounding name were more likely to receive a call-back than their clones with Pakistani-sounding names (Birkelund et al., 2014; see also Midtbøen & Rogstad, 2012). Generally, ethnic minorities of non-European origin are found to suffer from "ethnic penalties" in all Western labor markets (Midtbøen, 2015).

The effect of both these processes is the making of what Marx termed a (relative) surplus population (Marx, [1867]2008: 785–810; Marx, 1993: 608–10).[114] Superfluous populations have historically been a problem for governments (Shammas, forthcoming), and, according to Polanyi (2001: 234), since Bentham been constructed as a political category. Population control and economic reforms are measures aimed at handling the potential social unrest resulting from superfluity and amend the conditions of the "undesirable" and unemployed lumpenproletariat (Darity, 1983; Price & Darity, 2010). My case study of Uber Black in Oslo illustrates first that the digitalization of the economy and the labor process not necessarily abolish jobs, but introduce new forms for control. Secondly, surplus populations are not only a possible consequence of technological developments, but at the same time a prerequisite for the types of jobs created by labor-market platforms such as Uber. Most of the Uber Black drivers I met can be said to be part of the population made superfluous by the lack of integration and opportunities in the labor market. Before becoming Uber drivers, some were unemployed, others worked low-paid, insecure and physically demanding jobs. Generally, Uber Pop was one of very few ways they could make money, and they easily migrated to Uber Black when Uber Pop was discontinued. Other drivers are in debt and in need of whatever employment they can get. While most of the Uber Black drivers I met are healthy and able-bodied, some even with university degrees, these immigrants and children of

[114] In the process of capital accumulation, a working-class larger than the immediate requirements capitalist production is produced and reproduced, resulting in a surplus population or a "reserve army of labor", Marx argued. While capital accumulation theoretically increases the demand for and value of labor, this increase in the supply of labor larger than capital's demand decreases the wages to their "natural" price, or the minimum level of subsistence, in Marxian terms. According to Marx, technological developments further transform the composition of capital, increasing constant capital – the value of the means of production – at the expense of variable capital – the value of labor power. The production of a surplus population is thus immanent to the logic of capital accumulation. In Marx view, a surplus population is a necessity for capitalist production, as it provides capital with a surplus pool of workers, functioning both potential labor power to be exploited during periods of economic expansion and, by their mere existence, to keep the employed population disciplined and their wages low. Following Shammas (2018, forthcoming), I use the concept of a superfluous population to describe people with very few opportunities in the labor market and who have not been integrated into productive activities, and thus deemed superfluous.

immigrants are keen to work but struggling to find stable, secure and decent employment. Uber, however, is happy to provide this population with labor. It is not a coincidence that Uber was established in the wake of the 2008 financial crisis, as the crash provided an abundance of cheap and available labor power, people in desperate need of work and money, willing to endure a harsh working conditions and long hours, combined with the beginning proliferation of smartphones (see Pein, 2018: 77).

From the perspective of the governing, surplus populations are considered a potential threat that has to be controlled (Shammas, 2018). In the case of Uber Black in Oslo, the formal and technological work arrangement of Uber's platform combine the avoidance of an employer's responsibilities with strict control over the labor process. The flexibility offered by the Uber arrangement is countered by an algorithmic management making it possible for Uber to engage whomever. By tailoring the conditions under which the drivers work to incentivize particular conducts, the platform does not have to train the drivers nor be concerned with their skills and knowledge. The platform's market design functions independently of the agents' knowledge and automatically provides the necessary guidance, making it much easier for the company to hire workers on non-standard contracts. As the platform automatically calculates supply and demand, Uber does not schedule the drivers' shifts but allows them to drive whenever they want without other instructions than the platforms algorithmic management. Hence, Uber can endow the drivers with flexibility while still ensuring that they behave in accordance with the company's overall aims. In the context of US regulations, this has made it possible for Uber to hire workers as independent contractors, while Uber in Norway had to use limousine companies as intermediaries to hire labor power. As we have seen, even under the conditions of the Norwegian model, Uber has been able to integrate labor power on flexible contracts such as commission-paid and "partner" – although the latter is very rare. This suggests that technological work arrangements such as the platform might facilitate the erosion of standard employment relationships in the sectors they are established, although Hotvedt (2016) argues that, if tried in court, the Uber Pop drivers' contracts could be found to entail an employer-employee relationship. Further research is needed before the relation between platforms and "precarization" can be determined.

The platform model makes it possible to efficiently extract the labor power of people made superfluous, and Uber has simultaneously succeeded in avoiding all responsibilities associated with being an employer. This enables a work arrangement where workers are

reduced to "pure labor power", the price of which they are unable to negotiate. As the commission-paid Uber drivers are only reimbursed for the time they are making money for Uber, guided all through the process of picking up and driving passengers, and continuously reliant upon making the customers content for securing a sufficiently high rating for not being deactivated, Uber only takes what they need – i.e. someone to drive the cars. Behind the hype of the so-called sharing economy as a system for employing people with the "wrong" skills and competence, the case of Uber Black in Oslo illustrates that this is done by establishing a segment of the labor market characterized by "flexploitation", to speak with Bourdieu (1998: 85).

Uber Black is a luxury service. The drivers are confined to driving around, waiting for, picking up and dropping off passengers in "exclusive" cars. This makes Uber Black in Oslo the locus of striking inequalities. The customer is allowed to enjoy the comfort of Uber Black, the flexibility of the drivers' work arrangement and the efficiency of the algorithmic management. The passenger can see the name and a picture of her automatically assigned chauffeur – most likely an immigrant, exhausted after hours and hours driving around but compelled to stay on the road –, where he is and when he arrives. Will the passenger be pleased with his driver's service or will she have to set him straight? What is sure, however, is that the driver will have to keep on driving – maybe there even is a surge in the horizon?

## Uber and the Norwegian model: Challenges, adjustment and new regulations

While the formal work arrangement of Uber Black in Oslo differs from the organization of Uber Pop and Uber X in the US, the technological work arrangement is surprisingly similar to that applied in less tightly regulated markets.[115] At the same time, the formal work arrangement of Uber Black in Oslo is akin to the way the traditional taxi industry in Norway is organized, with Uber functioning as a dispatching center, the limousine companies as taxi owners and license holders, and drivers as drivers. In addition, the Uber drivers' complaints resemble those of the taxi drivers' (see Jensen et al., 2014: 58).

Labor regulations in Norway traditionally have been the outcome of negotiations between the social partners and an active state and manifested through collective agreements (see

[115] As described by Lee et al. (2015), Ravenelle (2017), Rosenblat and Stark (2016) Scholz (2017) and Slee (2015).

Andersen et al., 2014; Dølvik, 2013). While Uber adjusted its formal work arrangement to the legal requirements of this sector, the company was able to deploy the same technological work arrangement as it uses in other countries, and institute the platform as a private regulation of the market, establishing new forms of control within which principles traditionally associated with the Norwegian model are challenged.

First, the Uber Black drivers I have met work long hours for low wages. While the Working Environment Act asserts that "[n]ormal working hours must not exceed nine hours per 24 hours and 40 hours per seven days" (2005: § 10–4, 1), most Uber Black drivers in Oslo work significantly more. Drivers on commission-based contracts told me they earn between NOK 19 000 and 45 000 per month, depending on how many customers they serve, surge pricing and the number of direct bookings. According to Dølvik et al. (2014: 97), the future of Nordic welfare models depends on there not emerging a segment of working poor, reliant on benefits. While none of the drivers I met told me they received benefits but stressed the fact that it was better to drive Uber than "going to NAV", Alsos et al. (2017: 58) found that the earnings of Uber Pop drivers in Oslo were so low that they needed additional sources income, some receiving benefits. Labor-market platforms still constitute a marginal phenomenon (Alsos et al., 2017; Farrel & Grieg, 2017) and the standard employment relationship still is the norm in Norway (Nergaard, 2016), but as a case of arduous, low-paid and ethnically segmented work, Uber Black in Oslo embodies tendencies to which one should pay close attention.

Second, the mode of control immanent in Uber's platform challenges the principle of wage bargaining traditionally seen as a fundamental feature of the Norwegian model (Andersen et al., 2014). In addition to not being in a position to negotiate their contract and formal work arrangement with the limousine companies, the algorithmic management of Uber Black determines the wages of the drivers employed on commission-based contracts through dynamic pricing. The fare is set automatically by the platform without the drivers being able to exert any influence on the decision, demonstrating the inherent and fundamental power asymmetry between drivers and the platform.

Uber's adjustment to the conditions of the Norwegian transportation market and establishment of its own regulatory model illustrates an important tendency: Even though Uber had to adjust their business model to enter the Norwegian market and "pause" Uber

Pop, the company was able to impose its technological work arrangement without significant difficulties. Instead of trying to remedy the power asymmetries and poor working conditions on a labor-market platform such as Uber's, the Official Norwegian Report *The sharing economy – possibilities and challenges*[116] (NOU 2017:4) rather focuses on what measure can be taken to facilitate the growth of the sharing economy. One of the recommendations in the report was to repeal the taxi license requirement for professional transportation, but still keeping the requirement for professional licenses (NOU 2017:4: 22). Together with the reasoned opinion from EFTA Surveillance Authority (2017), this sparked a process of reviewing the Norwegian taxi regulations and creating "well-functioning competition in the taxi market, while at the same time securing a satisfying supply of taxis all over the country"[117] (Government.no, 2017). The Ministry of Transportation and Communications (2018) published a proposal for new legislation on October 1st 2018, aimed at easing access to the market and facilitate new business models employing new technology and hence increasing the competition.[118]

In the consultation memorandum, the Ministry of Transportation and Communications (2018) proposes to keep taxi licenses but lift the numerical restrictions and maximum price regulations, as well as transfer the expertise requirement from taxi licenses holders to the drivers, who will have to pass an exam – held in Norwegian – to attain a professional license. The Ministry argues that new technology has made it unnecessary to include a route memory test in such an exam. Moreover, the Ministry suggests to create one license for all forms of passenger transportation in cars with less than ten seats, thus removing the limousine service operator license as a specific category. In the proposed regulations, cars previously operating under this license will be able to attain a normal taxi license. To further facilitate market entry, the Ministry wants to repeal the requirement to have taxi driving as one's main occupation and for license holders to provide an economic guarantee, as well as removing license districts, making it possible for tax license holder to provide their service all over the country. However, the Ministry argues that there are districts in Norway where the market alone potentially will not create a sufficient supply of taxis. Under such conditions, the

[116] M.t.
[117] M.t.
[118] The Ministry of Transportation and Communications summarizes its positions: "Today's regulation of the taxi market entails barriers to entry preventing competition. Lack of competition contributes to higher prices and lower quality of the service and creates deadweight loss for society" (2018: 85 [m.t.]).

county will be able to grant selected license holder an exclusive right to provide taxi services.

To enable the establishment of new business models, the Ministry proposes to repeal the requirement to be connected to a dispatching center. License holders will be able to choose how they want to organize their operation, be it dispatching centers, companies with employed drivers or drive themselves. While these new regulations are meant to facilitate the implementation of new technology, the Ministry suggests keeping the requirement that all cars used for passenger transportation are to be equipped with a taximeter. However, there is currently a working group investigating the possibility of replacing taximeters with a "technology neutral" requirement (Ministry of Transportation and Communication, 2018: 75).

The Ministry of Transportation and Communications proposes that the changes will be effective from January 1st 2020, but both the final content and implementation of the new regulations depend on the hearing round and the proposal's journey through the parliament. As the consultation memorandum proposes to keep both taxi licenses and professional licenses, the new regulations might not facilitate a return of an Uber Pop-like arrangement, where everyone can use their private car for remunerated passenger transportation. It is more likely that Uber will become the license holder, and thus not dependent on the limousine companies. Time will show the drivers will be hired. As of now, however, there are no indications that the new regulations intend to put any restrictions on the platforms themselves – the structures effectively determining the wages and working conditions of the drivers.

## Concluding remarks

Given the assumption that the platform model embodies the techno-economic paradigm of the ICT age, Uber provides an indication of what is to come as we move from the installation phase to the deployment phase of the ICT revolution and the techno-economic paradigm is diffused throughout the whole economy. Echoing Perez' model, Alsos et al. (2017), Jesnes et al. (2016) and Srnicek (2017) hypothesize that elements of the platform model will be adopted by traditional businesses, but further research on this process is needed. However, Uber's ventures into autonomous vehicles and desire to get rid of human drivers (Newton, 2014) suggest that labor-market platforms might just be an intermediary phase in the history of automation. At the same time, if the platform model is implemented in traditional forms of

work and commerce, it might gain a stronger foothold than if dependent on a superfluous population. How companies in less digitalized sectors employ the platform model constitute a potentially fruitful avenue for further research.

One can imagine the implementation of algorithmic management systems in many different occupations and sectors of the economy. Based on location and competence of the workers, a platform model will be able to match employee and task in real time. While this is the way labor-market platforms such as Uber and Foodora (see Wisterberg, 2017) organize their businesses, it is not unthinkable that such a model can be adopted by companies and agencies concerned with casework to find an appropriate officer for each case. The use of rating systems to assess workers based on customer satisfaction is not an impossibility either (see Adkins, 2005), and can potentially be used in wage negotiations. Lastly, dynamic pricing can easily be introduced in digitalized forms of commerce, where supply and demand can be calculated and prices adjusted accordingly. Such a model is already implemented in some online markets, for example among online travel agents, and has enabled significant price discrimination (Clemons et al., 2002). Dynamic pricing models might be employed to incentivize workers to supply their labor when they are needed instead of scheduling shifts beforehand. The case of Uber Black in Oslo illustrates the non-negotiability and unpredictability such an arrangement might entail for the workers.[119] An interesting – and potentially eerie – example of how the platform as an organizational model has been adopted by social institutions – the techno-economic paradigms last frontier in Perez' model – is the so-called Social credit system recently initiated by Chinese authorities (Assheuer, 2017). While the "platformization" of the labor market might abrade employment relationships, this is not a determined outcome of the introduction of the platform technology, but depends on the platforms' reliance on labor power, the regulation of these sectors as well as of the platforms themselves, and the legal frameworks employed and/or developed to determine the workers' status.

To date, most labor-market platforms in Norway are selling the everyday luxury of getting your house cleaned or food delivered at the door (Alsos et al., 2017: 101), emerging as a

[119] For the transportation sector, so-called mobility-as-a-service platforms (Maas), compiling different forms of transportation – from buses to bikes, taxis, rental cars, and potentially autonomous vehicles – into one integrated platform, are hypothesized as a potential future (Aarhaug, 2017). Norwegian State Railways (NSB) recently took a step in this direction, buying 250 electric cars to be available for short-term rent in Oslo on a subscription or per-minute basis (Seljehaug, 2018).

commodification of tasks people previously performed themselves. Further research might explore how the discourse of "innovation" and Uber as a "better" market, combined with convenience and comfort for the consumer have constructed an image of the services sold through labor-market platforms as an organization of economic activity whose growth should be facilitated and encouraged. As I have been concerned with the labor in the platform economy rather than the consumers' perspectives, I have not been able to discuss the social and cultural significance of these new services. But approaching the so-called sharing economy from the perspective of labor, revealed that behind efficiency, user-friendliness and elegance of Uber Black, there are people working long hours for low wages. In this thesis, I have explored these strains of luxury through a traveling ethnography of 20 Uber Black drivers in Oslo. By being in the cars with the drivers, talking to them, observing what they do, feeling the exclusivity of the cars and experiencing the platform, I have been able to construct an analysis of the Uber drivers' labor and working conditions taking into account many aspects unattainable through interviews alone. However, the opaque nature of the platform model made it necessary to analyze additional documents and research published, conducted or commissioned by Uber.

My exploration has been guided by Kenney and Zysman's question about the platform's effect on the labor process (2016a: 66), and I have investigated three research questions: How did Uber adjust its business model to the regulations of the Norwegian passenger transportations sector? How is the Uber Black drivers' labor organized? And how can the case of Uber Black in Oslo be understood as illustrating tendencies and tensions in the process of implementing ICT in the economy and work arrangements?

First, while the license requirements of the regulation of the Norwegian passenger transportation sector prevented the "trial project" Uber Pop from gaining permanence in Norway, the luxury segment of the passenger transportation market provided Uber with a pocket of possibilities. Through the limousine companies employing the drivers and providing licensed and "exclusive" cars, Uber nonetheless succeeded in both implementing their business model and avoiding to employ divers directly. Furthermore, Uber and the limousine companies recruited drivers from a disenfranchised segment of the labor market, for whom driving Uber emerged as a lucrative job opportunity where there were few other.

Secondly, the formal work arrangement of Uber Black in Oslo endows the drivers with the freedom to choose how much they want to work within the 12-hour timespan they get access to a car. However, as most of them are paid on commission and the Uber Black market in Oslo is characterized by a general lack of customers, the drivers usually work a lot. The flexible formal work arrangement Uber initiates, necessities a technological work arrangement ensuring that the drivers provide their labor when and where they are needed. The platform model provides Uber with such a form of control.

Thirdly, the platform as an organizational principle embodies central aspects of the techno-economic paradigm of the ICT age. Based on the core technologies of the ICT revolution, the platform model is a dynamic infrastructure, extracting data and adjusting its measures to ever-changing conditions. Functioning as a privately owned market regulation, the platform creates, implements and enforces its own rules. These regulatory measures might challenge government regulations, but the platform can also establish itself within the boundaries of existing regulatory regimes. Immanent in the platform model are new forms of control structuring the labor process itself. Their automaticity and non-negotiability highlight the power asymmetries at the heart of the platform model, make it possible to integrate a surplus population and might potentially enable more flexible formal work arrangements.

My fundamental argument is that how the platforms are conceived is not insignificant. When Uber and other labor-market platforms are perceived as either an "innovation" or a mere technology, the people who sell their labor power through these platforms and their working conditions are easily overlooked. My investigation has highlighted the control and asymmetries of information and power immanent in the platform model as a principle for organizing the labor process, challenging the view of platforms as neutral intermediaries. Furthermore, as I propose to conceive the platform as a privately owned market regulation, the political dimension of the platform economy is unveiled further. In the case of Uber Black in Oslo, Uber – despite having to "pause" Uber Pop – has been able to institute its own work arrangement within which important features of the Norwegian model are potentially undone.

# Literature


Acquier, A., Daudigeos, T. & Pinkse, J. (2017). "Promises and paradoxes of the sharing economy: An organizational framework", *Technological Forecasting & Social Change*, 125, 1–10.

Adkins, L. (2005). "The New Economy, Property and Personhood", *Theory, Culture & Society*, 22(1), 111–130.

Aleem, Z. (2017). "Europe's top court just said Uber isn't a tech company — it's a cab company", *Vox.* Accessed from https://www.vox.com/world/2017/12/20/16800476/uber-eu-europe-taxi-regulation September 26th 2018.

Alsos, K., Jesnes, K., Øistad, B., S. and Nesheim, T. (2017). *Når sjefen er en app*, Fafo. Fafo report 2017:41.

Alvesson, M. & Kärreman, D. (2011). *Qualitative Research and Theory Development. Mystery as Method.* London: Sage.

Andersen, S. K., Dølvik, J. E. & Ibsen, C. L. (2014). *De nordiske aftalemodeller i åbne markeder – udfordringer og perspektiver*, Fafo/Faos. Nordmod2030, report number 9.

Angrist, J. D., Caldwell, S. & Hall, J. (2017). "Uber vs. Taxi: A Driver's Eye View", *National Bureau of Economic Research*, Working Paper 23891, Cambridge, MA: October 2017.

Assheuer, T. "Big data-diktaturet", *Vagant.* Accessed from http://www.vagant.no/kina-big-data-diktaturet/ August 12th 2018.

Atkinson, P. & Coffey, A. (2003). "Revisiting the relationship between participant observation and interviewing", In J. A. Holsten & J. F. Gubrium (eds.). *Postmodern interviewing* (109–122). London: Sage.

Bacchi, C. (2009). *Analysing Policy: What's the problem represented to be*?. Frenchs Forest: Pearson.

Barane, K. B. (2017). "Uber godtar bot på fem millioner", *Dagbladet.* Accessed form https://www.dagbladet.no/nyheter/uber-godtar-bot-pa-fem-millioner/68839274 April 30th 2018.

Bardhi, F. & Eckhardt, G., M. (2012). "Access-Based Consumption: The Case of Car Sharing", *Journal of Consumer Research,* 39, 881–898.

BBC. (2018). "Uber co-founder Travis Kalanick a billionaire after $9.3bn investment deal", *BBC*. Accessed from http://www.bbc.com/news/business-42740680 May 28th, 2018.

Bekken, J.-T. (2003). *Regulering av drosjenæringen en litteraturstudie for norske forhold,* Transportøkonomisk institutt [Institute of Transport Economics]. TØI report 646/2003.

Belk, R. (2010). "Sharing", *Journal of Consumer Research*, 36, 715–734.

Belk, R. (2014a). “Sharing Versus Pseudo-Sharing in Web 2.0”, *The Anthropologist*, 18(1), 7-23.

Belk, R. (2014b). “You are what you can access: Sharing and collaborative consumption online”, *Journal of Business Research,* 67, 1595–1600.

Bellafante, G. (2018). “Uber and the False Hopes of the Sharing Economy”, *The New York Times.* Accessed from https://www.nytimes.com/2018/08/09/nyregion/uber-nyc-vote-drivers-ride-sharing.html September 10th 2018.

Berg, J. (2015). “Income security in the on-demand economy: Findings and policy lessons from a survey of crowdworkers", *Comparative Labor Law & Policy Journal*, 37, 543–576.

Berg, J. & Johnston, H. (2018). “Too Good to Be True? A Comment on Hall and Krueger’s Analysis of the Labor Market for Uber’s Driver-Partners”, *ILR Review.* Accessed from http://journals.sagepub.com/doi/abs/10.1177/0019793918798593 October 13th 2018.

Beger, T., Frey, C. B., Levin, G. & Danda, S. R. (2018). “Uber Happy? Work and Well-being in the ‘Gig Economy’”, Working paper, *The 68th Panel Meeting of Economic Policy,* October 2018. Accessed from https://www.oxfordmartin.ox.ac.uk/downloads/academic/201809_Frey_Berger_UBER.pdf October 24th 2018.

Birkelund, G.E., Rogstad, J., Heggebø, K., Aspøy, T. M. & Bjelland, H.F. (2014) “Diskriminering i arbeidslivet. Resultater fra randomiserte felteksperimenter i Oslo, Stavanger, Bergen og Trondheim”, *Sosiologisk tidsskrift*, 22(4), 352–382.

Blaker, M. (2016). “Uber-sjåfør fortviler: - Prisen er latterlig lav, selv kundene ler”, *Side 3.* Accessed from https://www.side3.no/motor/uber-sjafor-fortviler---prisen-er-latterlig-lav-selv-kundene-ler-4387192 September 21st 2018.

Bloor, M. & Wood, F. (2006). “Ethnography”, In B. S. Turner (eds.). *The Cambridge Dictionary of Sociology* (176–177). Cambridge: Cambridge University Press.

Bodrožić, Z. & Adler, P. S. (2018). “The Evolution of Management Models: A Neo-Schumpeterian Theory”, *Administrative Science Quarterly,* 63(1). 85–129.

Bogard, W. (2009). “Deleuze and Machines: A Politics of Technology?”, In S. Savat & M. Poster (eds.). *Deleuze and New Technology* (15–31). Edinburgh: Edinburgh University Press.

Boltanski, L. & Chiapello, E. ([1999]2018). *The New Spirit of Capitalism.* London: Verso.

Borgarting Court of Appeals. (2016). “LB-2016-192252”, Verdict in Borgarting Court of Appeals [Borgarting lagmannsrett], June 12th, 2016. Accessed from https://lovdata.no/pro/#document/LBSTR/avgjorelse/lb-2016-192252?searchResultContext=968&rowNumber=3&totalHits=98 September 21st 2018.

Borgarting Court of Appeals. (2018). “LB-2018-109969”, Verdict in Borgarting Court of Appeals [Borgarting lagmannsrett], September 12th, 2018. Accessed from https://lovdata.no/dokument/LBSIV/avgjorelse/lb-2018-109969 September 22nd 2018.

Botsman, R. and Rogers, R. (2011). *What's Mine is Yours. How Collaborative Consumption is Changing the Way We Live.* London: Harper Collins Publishers.

Bourdieu, P. (1998). *Acts of Resistance. Against the New Myths of our Time.* Cambridge: Polity Press.

Brunstein, J. (2013). "Uber Explains Why $35 a Mile Is the Right Price", *Bloomberg.* Accessed from https://www.bloomberg.com/news/articles/2013-12-17/ubers-travis-kalanick-explains-the-car-services-surge-pricing June 19th 2018.

Brynjolfsson, E. & McAfee, A. (2014). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies.* London: W.W. Norton & Company.

Braathen, F. (2017). "Politiets aksjon mot Uber-sjåførene: Må betale tilbake 11 millioner kroner", *Aftenposten.* Accessed from https://www.aftenposten.no/okonomi/i/x66VX/Politiets-aksjon-mot-Uber-sjaforene-Ma-betale-tilbake-11-millioner-kroner April 30th 2018.

Burawoy, M. (2000). "Introduction: Reading for the Global", in M. Burawoy, J. A. Blum, S George, Z. Gille, T. Gowan, L. Haney, M. Klawiter, S. H. Lopez, S. O. Riain, M. Thayer, *Global Ethnography. Forces, Connections, and Imaginations in a Postmodern World* (1–40). Berkeley: University of California Press.

Calo, R. & Rosenblat, A. (2017). "The Taking Economy. Uber, Information, and Power", *Columbia Law Review,* 117, 1623–1690.

Camerer, C., Babcock, L., Loewenstein, G. & Thaler, R. (1997). "Labor Supply of New York City Cabdrivers: One Day at a Time", *The Quarterly Journal of Economics*, 112(2), 407–441.

Chandler, A. D. Jr. (1990). *Scale and scope. The dynamics of industrial capitalism.* Cambridge, MA: The Belknap Press of Harvard University Press.

Charmaz, K. (2014). *Constructing Grounded Theory* (2nd edition). London: Sage.

Chen, M. K., Chevalier, J. A., Rossi, P. E. & Oehlsen, E. (2017). "The value of flexible work: Evidence from Uber drivers", *National Bureau of Economic Research*, Working Paper 23296, Cambridge, MA: March 2017.

Chen, M. K. & Sheldon, M. (2015). "Dynamic Pricing in a Labor market: Surge Pricing and Flexible Work on the Uber Platform", UCLA Anderson School of Management.

Cheng, M. (2016). "Sharing economy: A review and agenda for future research", *International Journal of Hospitality Management*, 57, 60–70.

Clemons, E. K., Hann, I.-H. & Hitt, L. M. (2002). "Price Dispersion and Differentiation in Online Travel: An Empirical Investigation", *Management Science*, 48(4). 534–549.

Codagnone, C., Biagi, F. & Abadie, F. (2016). *The Passions and the Interests: Unpacking the 'Sharing Economy'*, JRC Science for Policy Report, Joint Research Center. Accessed from http://publications.jrc.ec.europa.eu/repository/bitstream/JRC101279/jrc101279.pdf

October 21st 2018.

Coffey, A. & Atkinson, P. (1996). *Making sense of qualitative data. Complementary research strategies.* London: Sage.

Cohen, P., Hahn, R., Hall, J., Levitt, S. & Metcalfe, R. (2016). "Using Big Data to Estimate consumer Surplus: The Case of Uber", *National Bureau of Economic Research*, Working Paper 22627, Cambridge, MA: September 2016.

Crunchbase.com. (No date). "Uber", *Crunchbase.com*. Accessed from https://www.crunchbase.com/organization/uber#section-overview September 10th 2018.

Curia (Court of Justice of the European Union). (2017). "Judgement of the Court (Grand Chamber). 20 December 2017". Accessed from https://g8fip1kplyr33r3krz5b97d1-wpengine.netdna-ssl.com/wp-content/uploads/2017/12/European-Court-of-Justice-Uber-ruling-December-20-2017-POLITICO.pdf May 14th 2018.

Czarniawska, B. (2007). *Shadowing and Other Techniques for Doing Fieldwork In Modern Societies.* Oslo: Universitetsforlaget.

Darity, W. Jr. (1983). "The Managerial Class and Surplus Population", *Society,* November/December 1983, 54–62.

Davis, G. F. (2016). "What Might Replace the Modern Corporation: Uberization and the Web Page Enterprise", *Seattle University Law Review,* 39. 501–515.

De Stefano, V. (2016). *The rise of the "just-in-time workforce": On-demand work, crowdwork and labour protection in the "gig-economy".* Conditions of Work and Employment Series no. 71. Geneva: International Labour Office.

Deleuze, G. (1995a). "Control and Becoming". *Negotiations. 1972–1990* (168–176). New York: Columbia University Press.

Deleuze, G. (1995b). "Postscript on Control Societies". *Negotiations. 1972–1990* (177–182). New York: Columbia University Press.

Deleuze, G. (1998). "Having an Idea in Cinema (On the Cinema of Straub-Huillet)", In E. Kaufman og K.J. Heller (eds.), *Deleuze and Guattari: New Mappings in Politics, Philosophy and Culture* (14–19). Minneapolis: Minnesota University Press.

Deleuze, G. ([1986]2006). *Foucault.* London: Bloomsbury Academic.

Dellarocas, C. (2003). "The Digitalization of Word of Mouth: Promise and Challenges of Online Feedback Mechanisms", *Management Science,* 49(10), 1407–1424.

Dølvik, J. E. (2013). *Grunnpilarene i de nordiske modellene. Et tilbakeblikk på arbeidslivs- og velferdsregimenes utvikling,* Fafo. Fafo report number 13 2013, NorMod2030. Accessed from https://www.fafo.no/images/pub/2013/20303.pdf September 17th 2018.

Dølvik, J. E., Fløtten, T., Hippe, J. M. & Jordfald, B. (2014). *Den nordiske modellen mot 2030 Et nytt kapittel?,* Fafo. Fafo report number 46 2014, NorMod2030. Accessed from https://www.fafo.no/images/pub/2014/20393.pdf September 4th 2018.

Dølvik, J. E. & Jesnes, K. (2018). *Nordic labour markets and the sharing economy – Report from a pilot project,* TemaNord: 2018:516, *The Nordic Council of Ministers.*

EEA Agreement. (2016). "Agreement on the European Economic Area", *EEA.* Accessed from http://www.efta.int/media/documents/legal-texts/eea/the-eea-agreement/Main%20Text%20of%20the%20Agreement/EEAagreement.pdf September 10th 2018.

EFTA Surveillance Authority. (2017). "Case No: 74881 Document No: 818034 Decision No: 041/17/COL", *EFTA Surveillance Authority.* Accessed from http://www.eftasurv.int/media/esa-docs/physical/Reasoned_opinion___Failure_by_Norway_to_fulfil_its_obligations_under_Art_31(1)_EEA_by_mainta.pdf September 10th 2018.

Egeland, W. S.; Tveito, A. J. & Lund, C. (2009). "Regulation and comptetition in the Norwegian taxi service industry", *Competition Law International,* June 2009. 34–40.

Einav, L., Farronato, C. & Levin, J. (2016). "Peer-to-Peer Markets", *Annual Review of* Economics, 8, 615–635.

Elwood, S. A. & Martin, D. G. (2000). "'Placing' Interviews: Location and Scales of Power in Qualitative Research", *Professional Geographer,* 52(4). 649–657.

Energy.gov. (2017). "Fact #962: January 30, 2017 Vehicles per Capita: Other Regions/Countries Compared to the United States", *Department of Energy* [United States]. Accessed from https://www.energy.gov/eere/vehicles/fact-962-january-30-2017-vehicles-capita-other-regionscountries-compared-united-states October 16th 2018.

Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism.* Princeton: Princeton University Press

Farrel, D. & Grieg, F. (2017). "The Online Platform Economy. Has Growth Peaked?", *JPMorgan Chase Institute.* Accessed from https://poseidon01.ssrn.com/delivery.php?ID=358086124121107127111120125125082066005053028051000082065087068119118119101070068106013057098023052127028119114093005080103067109016014016004004026119113004018125023086042087118029026015028118105089093127089123113086093105067081085008120086004069104098&EXT=pdf August 28th 2018.

Finstad, E.S. (2017). *Uberdrevet? En kvalitativ studie av arbeid for plattformen Uber i Oslo* (Master's thesis). Department of sociology and human geography, University of Oslo.

Flatebakken, A. & Helgaker, E. (2018). "Uber i fin fart – før tjenesten ble ulovlig", *Dagens Næringsliv.* Accessed from https://www.dn.no/nyheter/2018/07/19/2050/Finans/uber-i-fin-fart-for-tjenesten-ble-ulovlig July 30th 2018.

Fleming, P. (2017). "The Human Capital Hoax: Work, Debt and Insecurity in the Era of Uberization", *Organization Studies,* 38(5). 691–709.

Flyvbjerg, B. (2006). "Five Misunderstandings About Case-Study Research", *Qualitative Inquiry,* 12(2). 219–245.

Forbes. (no date). "The World's Most Valuable Brands", *Forbes*. Accessed from https://www.forbes.com/powerful-brands/list/ 20th February 2018.

Foucault, M. (1994). *Overvåkning og straff. Det moderne fengselets historie* [*Discipline and Punish: The Birth of the Modern Prison*]. Oslo: Gyldendal norsk forlag.

Foucault, M. (2015). *The Punitive Society. Lectures at the Collège de France. 1972–1973*. London: Palgrave Macmillan.

Freeman, C. & Louçã, F. (2001). *As Time Goes By. From the Industrial Revolution to the Information Revolution*. Oxford: Oxford University Press.

Frenken, K. & Schor, J. (2017). "Putting the sharing economy into perspective", *Environmental Innovation and Societal Transitions,* 23, 3–10.

Frey, C. B. & Osborne, M. A. (2013). "The future of jobs: How susceptible are jobs to computerisation?", Working paper, September 2013. Accessed from https://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf August 28th 2018.

Gandini, A. (2016). *The Reputation Economy. Understanding knowledge work in digital society.* Basingstoke: Palgrave Macmillan.

Gansky, L. (2010). The M*esh. Why the Future of Business is Sharing.* New York: Portofolio/Penguin.

Geertz, C. (2000). "Thick Descriptions. Toward an Interpretive Theory of Culture", in *The Interpretation of Cultures. Selected Essays* (3–30). New York: Basic Books.

Gough, D., Oliver, S. & Thomas, J. (2017). *An introduction to systematic reviews* (2nd edition). London: Sage.

Government.no. (2017). "Igangsetter arbeid for å endre drosjereguleringen", *Regjeringen.no* [*Government.no*]. Accessed from https://www.regjeringen.no/no/aktuelt/igangsetter-arbeid-for-a-endre-drosjereguleringen/id2581606/ September 5th 2018.

Government.no. (2018a). "Løyver. Information, vilkår og regelverk om løyver", *Regjeringen.no* [*Government.no*]. Accessed from https://www.regjeringen.no/no/tema/transport-og-kommunikasjon/ytransport/loyver/id444316/ September 9th 2018.

Government.no. (2018b). "Kjøreseddel", *Regjeringen.no* [*Government.no*]. Accessed from https://www.regjeringen.no/no/tema/transport-og-kommunikasjon/ytransport/kjoreseddel/id444313/ September 9th 2018.

Guda, H. & Subramanian, U. (2018). "Your Uber is Arriving: Managing On-Demand Workers through Surge Pricing, Forecast Communication and Worker Incentives", *Management Science*, Forthcoming. Available at SSRN: https://ssrn.com/abstract=2895227 or http://dx.doi.org/10.2139/ssrn.2895227.

Habibi, M., R., Davidson, A. & Laroche, M. (2017). "What managers should know about the sharing economy", *Business Horizons*, 60, 113–121.

Hall, J. V.; Horton, J. J. & Knoepfle, D., T. (2017). "Labor Market Equilibration: Evidence form Uber". Working paper. Accessed at http://john-joseph-horton.com/papers/uber_price.pdf April 6th 2018.

Hall, J. V.; Kendrick, C. & Nosko, C. (2015). "The Effects of Uber's Surge Pricing: A Case Study", The University of Chicago Booth School of Business. Accessed at http://1g1uem2nc4jy1gzhn943ro0gz50.wpengine.netdna-cdn.com/wp-content/uploads/2016/01/effects_of_ubers_surge_pricing.pdf April 8th, 2018.

Hall, J. & Krueger, A., B. (2017). "An Analysis of the Labor Market for Uber's Driver-Partners in the United States", *ILR Review*, June 2017. 1–28.

Häring, N. (2017). "How Uber money dominates and distorts economic research on ride-hailing platforms", *Brave New Europe. Politics and Economics: Expertise with a Radical Face.* Accessed from https://braveneweurope.com/norbert-haring-how-uber-money-dominates-and-distorts-economic-research-on-ride-hailing-platforms October 9th 2018.

Hartmans, A. (2017). The $10 Billion Club: Meet the most valuable startups in the US", *Business Insider.* Accessed from http://www.businessinsider.com/most-valuable-us-startups-10-billion-decacorns-2017-12?r=US&IR=T, May 29th, 2018.

Hasås, T. (2018). "Utålmodige sykkelbud i Foodora krever at arbeidsgiver dekker mobil og sykkel", *Fri fagbevegelse.* Accessed from https://frifagbevegelse.no/transportarbeideren/utalmodige-sykkelbud-i-foodora-krever-at-arbeidsgiver-dekker-mobil-og-sykkel-6.158.580389.1839307f2b October 16th 2018.

Haugan, B. (2016a). "Erna Solberg om delingsøkonomi: – Vil ikke forby Uber og Airbnb", *VG*. Accessed at https://www.vg.no/nyheter/innenriks/uber/erna-solberg-om-delingsoekonomi-vil-ikke-forby-uber-og-airbnb/a/23591623/ November 21st 2017.

Haugan, B. (2016b). "Her tar NHO-sjefen omstridt Uber-bil", *VG.* Accessed from https://www.vg.no/nyheter/innenriks/i/o04GR/her-tar-nho-sjefen-omstridt-uber-bil September 22nd 2018.

Hawkins, A. (2017). "The Verge 2017 tech report card: Uber", *The Verge*. Accessed from https://www.theverge.com/2017/12/29/16820474/2017-tech-recap-uber-scandal-waymo-lawsuits-travis-kalanick September 10th 2018.

Hayek, F. A. (1945). "The Use of Knowledge in Society", *The American Economic Review,* 35(4), 519–530.

Henriksen, I. M. & Tøndel, G. (2017). "Spontane dybdeintervjuer: Strategisk interaksjon som sosiologisk forskningsmetode", *Norsk Sosiologisk Tidsskrift,* 24(3). 216–232.

Hoffman, L., Bensinger, G. & Farrell, M. (2018). "Uber Proposals Value Company at $120 Billion in a Possible IPO", *The Wall Street Journal.* Accessed form https://www.wsj.com/articles/uber-proposals-value-company-at-120-billion-in-a-possible-ipo-1539690343 October 25th 2018.

Horan, H. (2017). "Will The Growth of Uber Increase Welfare?", *Transportation Law Journal,* 44, 33–105.

Hotvedt, M. J. (2016). "Arbeidsgiveransvar i formidlingsøkonomien? Tilfellet Uber", *Lov og Rett*, 55(8), 484–503.

Hovland, K. M. (2018). "Taxi-appen Prai tapte ankesak: Tar saken til Høyesterett", *E24.* Accessed from https://e24.no/naeringsliv/delingsoekonomi/taxi-appen-prai-tapte-ankesak-tar-saken-til-hoeyesterett/24435187 September 22nd 2018.

Hwang, T. & Elish, M. C. (2015). "The Mirage of the Marketplace", *Slate.* Accessed from http://www.slate.com/articles/technology/future_tense/2015/07/uber_s_algorithm_and_the_mirage_of_the_marketplace.html June 20th 2018.

Illouz, E. (2007). *Cold Intimacies. The Making of Emotional Capitalism.* Cambridge: Polity Press.

Ilsøe, A. & Madsen, L. W. (2017). *Digitalisering af arbeidsmarkedet: Danskernes erfaring med digital automatisering og digitale platforme,* Faos. Faos research note nr. 157.

Isaac, M. (2017a). "How Uber Deceives the Authorities Worldwide", *The New York Times.* Accessed from https://www.nytimes.com/2017/03/03/technology/uber-greyball-program-evade-authorities.html September 6th 2018

Isaac, M. (2017b). "Uber C.E.O. to Leave Trump Advisory Council After Criticism", *The New York Times.* Accessed from https://www.nytimes.com/2017/02/02/technology/uber-ceo-travis-kalanick-trump-advisory-council.html September 10th 2018. .

Jacobs, M. & Mazzucato, M. (2016). "Rethinking Capitalism: An Introduction", In M. Jacobs & Mazzucato, M. (eds.). *Rethinking Capitalism. Economics and Policy for Sustainable and Inclusive Growth* (1–28). Oxford: Wiley-Blackwell.

Jensen, R. S., Jordfald, B. & Bråten, M. (2014). *Norsk transport – veien videre,* Fafo. Fafo report 2014:03.

Jesnes, K., Øistad, B. S., Alsos, K. & Nesheim, T. (2016). *Aktører og arbeid i delingsøkonomien,* Fafo. Fafo research note 2016:23.

Kaminska, I. (2016). "Mythbusting Uber's Valuation", *Financial Times.* Accessed from https://ftalphaville.ft.com/2016/09/13/2173631/mythbusting-ubers-valuation/, May 29th, 2018.

Karlsen, K. (2017). "Fem millioner i bot til Uber", *Dagbladet.* Accessed from https://www.dagbladet.no/nyheter/fem-millioner-i-bot-til-uber/68714761 April 30th 2018.

Ke, T., T., Jiang, B. & Sun, M. (2017). "Peer-to-Peer Markets and Bilateral Ratings", *MIT Sloan School Working paper,* 5236-17.

Kenney, M. & Zysman, J. (2016a). "The Rise of the Platform Economy", *Issues in Science and Technology,* spring 2016, 61–69.

Kenney, M. & Zysman, J. (2016b). *What is the Future of Work? Understanding the Platform Economy and Computation-intensive Automation*, BRIE Working Paper, 2016-9.

Kenney, M. & Zysman, J. (2017). "Entrepreneurial Finance in the Platform Economy Era: What Consequences for Labor?", paper presented at Future of Work conference, Chicago, 5th–6th October 2017. Accessed from https://static1.squarespace.com/static/5910ee5d1e5b6ca37f0a53b0/t/5a84991ee2c4835ce8cfe21b/1518639391895/Ken+%26+Zys+trimmed+final.pdf May 20th 2018.

Keynes, J.M. (1963). *Essays in Persuasion.* New York: W.W. Norton & Co.

Kinstler, L. (2018). "How TripAdvisor changed travel", *The Guardian.* Accessed from https://www.theguardian.com/news/2018/aug/17/how-tripadvisor-changed-travel September 5th 2018.

King, I. & Newcomer, E. (2018). "Uber Spent $10.7 Billion in Nine Years. Does It Have Enough to Show for It?", *Bloomberg.* Accessed from https://www.bloomberg.com/news/articles/2018-03-06/uber-spent-10-7-billion-in-nine-years-does-it-have-enough-to-show-for-it September 11th 2018.

Krokan, A. (2018). *Deling, plattform, tillit.* Oslo: Cappelen Damm Akademisk.

Kvale, S. & Brinkmann, S. (2009). *Det kvalitative forskningsintervjuet* (2nd edition). Oslo: Gyldendal Akademisk.

Lam, C., T. & Lui, M. (2017). "Demand and Consumer Surplus in the On-demand Economy: the Case of Ride Sharing". Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2997190. Accesses March 5th, 2018.

Lee, M. K., Kusbit, D., Metsky, E. & Dabbish, L. (2015). "Working with Machines: The Impact of Algorithmic and Data-Driven Management on Human Workers". CHI '15 Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems, 1603–1612.

Leseth, A. B. & Tellmann, S. M. (2014). *Hvordan lese kvalitativ forskning?* Oslo: Cappelen Damm Akademisk.

Longva, F., Osland, O. & Leiren, M. D. (2010). *Omreguleringer i drosjemarkedet – hvilke alternativer finnes og hva blir konsekvensene?*, Transportøkonomisk institutt [Institute of Transport Economics]. TØI report 1054/2010.

Lorentzen, M. & Bach, D. (2018). "– Det blir spennende å se hva Uber svarer med", *VG.* Accessed from https://e24.no/naeringsliv/mener-de-har-knekt-taxi-koden-prai-vil-tilby-lovlige-drosjeturer-til-langt-lavere-pris/24295343 September 22nd 2018.

Lund, J. & Bjerkan, L. (2016). "- Flyktningene som kommer til Norden, kommer med entreprenørskap og en smarttelefon", *Aftenposten.* Accessed from https://www.aftenposten.no/okonomi/i/o6oj/--Flyktningene-som-kommer-til-Norden_-kommer-med-entreprenorskap-og-en-smarttelefon July 2nd 2018.

Lund, J. (2017). "Derfor betaler du det hvite ut av øyet når du tar en taxi…", *Aftenposten.* Accessed from https://www.aftenposten.no/meninger/kommentar/i/p0zkX/Derfor-betaler-du-det-hvite-ut-av-oyet-nar-du-tar-en-taxi--Joacim-Lund September 21st 2018.

Lutz, A. (2017). "Furious customers are deleting the Uber app after drivers went to JFK airport during a protest and strike", *Business Insider.* Accessed from https://nordic.businessinsider.com/delete-uber-hashtag-jfk-airport-taxi-strikes-2017-1?r=US&IR=T September 10th 2018.

Løvås, J. (2018). "Datadeling skal gi oljeprofitt for Lundin og Aker BP", *Dagens Næringsliv.* Accessed from https://www.dn.no/olje/lundin/per-johan-fallro/lundins-edvard-grieg/datadeling-skal-gi-oljeprofitt-for-lundin-og-aker-bp/2-1-418599 September 21st 2018.

Mannes, J. (2017). "Here is Uber's First Pitch Deck", *Techcrunch.* Accessed from https://techcrunch.com/gallery/here-is-ubers-first-pitch-deck August 8th 2018.

Mannheim, K. ([1943]2010). *Diagnosis of Our Time. Wartime Essays of a Sociologist*. Abingdon, Oxford: Routledge.

March, J., G. og Olsen, J., P. (1989). *Rediscovering Institutions. The Organizational Basis of Politics*. New York: Free press.

Marcus, G. & Fisher, M. J. (1986). *Anthropology as cultural critique*. Chicago: University of Chicago Press.

Mason, C. (2009). "Venture Capital", *Elsevier Science,* 12, 131–137.

Marx, K. ([1847]1955). *The Poverty of Philosophy.* Moscow: Progress Publishers.

Marx, K. ([1867]2008). *Kapitalen. Kritikk av den politiske økonomien. Første bok: Kapitalens produksjonsprosess.* Oslo: Bokklubben.

Marx, K. (1993). *Grundrisse.* London: Penguin Books.

Melley, B. & Rugaber, C. (2018). "California Ruling a 'Seismic Shift' for Gig Economy Workers", *Associated Press.* Accessed from https://www.uberlawsuit.com/California%20Ruling%20a%20Seismic%20Shift%20for%20Gig%20Economy%20Workers.pdf September 10th 2018.

Merton, R. K. & Kendall P. L. (1946). "The Focused Interview", *American Journal of Sociology,* 51(6). 541–557.

Midtbøen, A. H. (2015). "Ethnic penalties in western labour markets", *Nordic Journal of Migration Research*, 5(4), 185–193.

Midtbøen, A. H. & Rogstad, J. (2012). *Diskrimineringens omfang og årsaker. Etniske minoriteters tilgang til norsk arbeidsliv,* Institutt for samfunnsforskning (ISF). ISF report 2012:1. Accessed from https://brage.bibsys.no/xmlui/bitstream/handle/11250/177445/R_2012_1_web.pdf?seq August 28th 2018.

Ministry of Transport and Communications. (2017). "Answer - Reasoned Opinion regarding the market for taxi services in Oslo (the Authority's decision no. 041/17/COL)", *Samferdselsdepartementet* [*Ministry of Transport and Communications*]. Accessed from

https://www.regjeringen.no/contentassets/f40491e759044d3c97b4daa211ac5313/answer---reasoned-opinion-regarding-the-market-for-taxi-services---11-december-2017.pdf September 10th 2018.

Ministry of Transport and Communications. (2018). "Høringsnotat. Endringer i Drosjereguleringen. Oppheving av Behovsprøving mv.", *Samferdselsdepartementet* [*Ministry of Transport and Communications*], consultation memorandum, October 1st 2018. Accessed from https://www.regjeringen.no/contentassets/d9d46f499ae244409d3726f763603543/horingsnotat---endringer-i-drosjereguleringen---oppheving-av-behovsprovingen-1681321.pdf October 12th 2018.

Mirowski, P. & Nik-Khah, E. (2017). *The Knowledge We Have Lost in Information. The History of Modern Economics.* Oxford: Oxford University Press.

Mjøset, L. (2006). "A Case Study of a Case Study. Strategies of Generalization and Specification in the Study of Israel as a Single Case", *International Sociology* 21(5). 735–766.

Mjøset, L. (2009a). "The Art of Macro-Qualitative Modelling: An Exploration of Perez' Sequence Model of Great Surges", In E. S. Reinert, R. Kattel & W. Drechsler (eds.), *Techno-Economic Paradigms: Essays in Honour of Carlota Perez* (239–268). London: Anthem Press.

Mjøset, L. (2009b). "The Contextualist Approach to Social Science Methodology", In D. Byrne & C. C. Ragin (eds.), *The SAGE Handbook of Case-Based Methods.* London: Sage.

Mjøset, L. (2015). "A Varieties Approach to the Varieties of Capitalism", In S. Ó. Riain; F. Behling; R. Ciccia & E. Flaherty (ed.), *The Changing Worlds and Workplaces of Capitalism* (15–37). Basingstoke: Palgrave Macmillan.

Moe, S. & Grønning, T. B. (2014). "- Skal du drive med betalt transport, så skal du ha løyve", *E24.* Accessed April 14th 2018, from https://e24.no/bil/den-omstridte-taxi-appen-uber-kommer-til-oslo/23338937.

Mogg, T. (2018). "After leaving China and Russia, Uber also exits Southeast Asia rideshare market", *Yahoo Finance.* Accessed form https://finance.yahoo.com/news/china-russia-uber-exits-southeast-071058920.html September 4th 2018.

Monaghan, A. (2018). "Toyota to invest $500m in Uber for self-driving car programme", *The Guardian.* Accessed from https://www.theguardian.com/business/2018/aug/28/toyota-to-invest-500m-in-uber-for-self-driving-car-programme September 20th 2018.

Morozov, E. (2013a). "The 'sharing economy' undermines workers' rights", *Financial Times.* Accessed form https://www.ft.com/content/92c3021c-34c2-11e3-8148-00144feab7de July 31st 2018.

Morozov, E. (2013b). *To Save Everything Click Here. Technology, solutionism and the urge to fix problems that don't exist.* London: Penguin books.

Mulholland, R. (2014). "Uber protests sweep Europe", *The Telegraph.* Accessed from

https://www.telegraph.co.uk/news/worldnews/europe/france/10892458/Uber-protests-sweep-Europe.html September 10th 2018.

Muñoz, P. & Cohen, B. (2017). "Mapping out the sharing economy: A configural approach to sharing business modeling", *Technological Forecasting & Social Change*, 125, 21–37.

Murillo, D., Buckland, H. & Val, E. (2017). "When the sharing economy becomes neoliberalism on steroids: Unravelling the controversies", *Technological Forecasting & Social Change*, 125, 66–76.

Nadeem, S. (2015). "On the sharing economy", *Context,* 14(1). 12–19.

Nelms, T. C., Maurer, B., Swartz, L. & Mainwarning, S. (2018). "Social Payments: Innovation, Trust, Bitcoin, and the Sharing Economy", Theory, Culture & Society, 35(3), 13–33.

Nergaard, K. (2016). *Tilknytningsformer i norsk arbeidsliv. Nullpunktsanalyse,* Fafo. Fafo report 2016:07.

Nerheim, G. (1998). *Olje-Norge – historie og framtid*, P2-Akademiet. L. Otta: Kulturredaksjonen NRK P2. (135–144).

NESH. (2016). *Forskningsetiske retningslinjer for samfunnsvitenskap, humaniora, juss og teologi* [*Research ethical guidelines for social science, humanities, law and theology*], The National Committee for Research Ethics in the Social Sciences and the Humanities. Accessed from https://www.etikkom.no/globalassets/documents/publikasjoner-som-pdf/60125_fek_retningslinjer_nesh_digital.pdf September 11th 2018.

Newcomer, E. (2018a). Uber CEO Embraces Losing Money With Revenue Growth Slowing", *Bloomberg.* Accessed from https://www.bloomberg.com/news/articles/2018-08-15/uber-ceo-embraces-losing-money-with-revenue-growth-slowing September 11th 2018.

Newcomer, E. (2018b). "Uber Shows a Quarterly Profit, Sort of, Thanks to Grab Deal", *Bloomberg.* Accessed from https://www.bloomberg.com/news/articles/2018-05-23/uber-shows-a-quarterly-profit-sort-of-thanks-to-grab-deal, May 29th, 2018.

Newton, C. (2014). "Uber will eventually replace all its drivers with self-driving cars", *The Verge.* Accessed from https://www.theverge.com/2014/5/28/5758734/uber-will-eventually-replace-all-its-drivers-with-self-driving-cars September 26th 2018.

Nordbø, D. (2017). "Den latterlige taxivirkeligheten i Oslo", *VG.* Accessed from https://www.vg.no/nyheter/meninger/i/0w086/den-latterlige-taxivirkeligheten-i-oslo September 21st 2018.

NOU 2017: 4. *Delingsøkonoien – muligheter og utfordinger* [*The sharing economy – possibilities and challenges*]. Oslo: Finansdepartementet.

NTB. (2017a). "Uber bekrefter bruk av omstridt program i Norge", *E24.no*. Accessed from https://e24.no/digital/uber/uber-bekrefter-bruk-av-omstridt-program-i-norge/23944798 September 6th 2018.

NTB. (2017b). "Uber trekker sin viktigste tjeneste fra det norske markedet", *Aftenposten.* Accessed from https://www.aftenposten.no/norge/i/45jeg/Uber-trekker-sin-viktigste-tjeneste-fra-det-norske-markedet April 30th 2018.

Nurvala, J.-P. (2016). "'Uberisation' Is the Future of the Digitalised Labour Market", *European View*, 14. 231–239.

O'Kane, S. (2017). "SoftBank acquires a 20 percent stake in Uber", *The Verge.* Accessed from https://www.theverge.com/2017/12/28/16826762/softbank-uber-deal-close-valuation-shares May 28th, 2018.

O'Keefe, B. & Jones, M. (2015). "How Uber plays the tax shell game", *Fortune.* Accessed form http://fortune.com/2015/10/22/uber-tax-shell/ May 2nd 2018.

Online Etymological Dictionary. (No date). "Surge", *Online Etymological Dictionary*. Accessed from https://www.etymonline.com/word/surge August 3rd 2018.

Oppegaard, S. M. N. (2018). "Fengslet i kontrollens tidsalder: Deleuzes skisse til kontrollsamfunnet som maktteoretisk utgangspunkt", In J.F. Rye & I.R. Lundeberg (eds.). *Fengslende Sosiologi. Makt, straff og identitet i Trondheims fengsler* (238–262). Oslo: Cappelen Damm Akademisk.

Oslo Economics. (2017). *Behov for antallsregulering av drosjeløyver – en samfunnsøkonomisk analyse,* Oslo Economics. OE report 2017-16.

Oslo municipality. (No date). "Søk om selskapsvognløyve", *Oslo kommune* [*Oslo Municipality*]. Accessed from https://www.oslo.kommune.no/gate-transport-og-parkering/transportloyver/selskapsvognloyve/#gref April 24th 2018.

Oslo municipality. (2018). "Retningslinjer for godkjenning av selskapsvogner i Oslo kommune, vedtatt 05.06.2018", *Oslo kommune* [*Oslo Municipality*]. Accessed from https://www.oslo.kommune.no/getfile.php/13283990/Innhold/Gate%2C%20transport%20og%20parkering/Transportløyver/Retningslinjer%20for%20godkjenning%20av%20selskapsvogner%20i%20Oslo%20kommune.pdf June 25th, 2018.

Oterholm, G. (2018). "Uber får ingen ny norgessjef". *Dagens Næringsliv.* Accessed from https://www.dn.no/arbeidsliv/taxi/samferdsel/carl-edvard-endresen/uber-far-ingen-ny-norgessjef/2-1-428254 October 25th 2018.

Oxford Living Dictionary. (No date). "Surge", *Oxford Living Dictionary*. Accessed from https://en.oxforddictionaries.com/definition/surge August 3rd 2018.

Pais, I. & Provasi, G. (2015). "Sharing Economy: A Step Towards the Re-Embeddedness of the Economy?", Stato e Mercato, 105(3). 347–378.

Pedersen, S., Haavardsholm, O. & Vennemo, H. (2016). *Delingsøkonomiens betydning for norsk økonomi i dag og i fremtiden*, Vista analyse. Vista analyse report 45.

Pein, C. (2018). *Live Work Work Work Die. A Journey Into the Savage Heart of Silicon Valley.* New Work: Metropolitan Books.

Perez, C. (2003). *Technological Revolutions and Financial Capital. The Dynamics of*

*Bubbles and Golden Ages*. Cheltenham: Edward Elgar Publishing.

Perez, C. (2009). "The double bubble at the turn of the century: technological roots and structural implications", *Cambridge Journal of Economics,* 33, 779–805.

Perez, C. (2010). "Technological revolutions and techno-economic paradigms", Cambridge Journal of Economics, (34)1, 185-202.

Perez, C. & Leach, T. M. (2018). "A Smart Green 'European Way of Life": the Path for Growth, Jobs and Wellbeing", *Beyond the Technological Revolution,* working paper 2018-1. Accessed from http://beyondthetechrevolution.com/wp-content/uploads/2014/10/BTTR_WP_2018-1.pdf October 5th 2018.

Polanyi, K. ([1944]2001). *The Great Transformation. The Political and Economic Origins of Our Time*. Boston, MA: Beacon Press.

Prassl, J. (2018). *Humans as a Service. The Promise and Perils of Work in the Gig Economy.* Oxford: Oxford University Press.

Price, G. N. & Darty, W. Jr. (2010). "The Economic Breeding-Out of Surplus Blacks? The Political Economy of Eugenic Sterilization and Genocide in North Carolina", Paper presented at the 2011 *Allied Social Sciences Association*. Accessed from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.364.3542&rep=rep1&type=pdf August 29th 2018.

Price, R. (2018). "Toyota is investing $500 million in Uber at a $72 billion valuation as part of a self-driving car partnership", *Business Insider.* Accessed from https://nordic.businessinsider.com/toyota-to-invest-500m-in-uber-at-72b-valuation-report-2018-8?r=US&IR=T September 10th 2018.

Professional Transportation Act. (2002). *Yrkestrafikkloven* [*Act on Professional Transport by Motor Vehicle and Vessel*]. Accessed from https://www.regjeringen.no/no/dokumenter/act-on-professional-transport-by-motor-v/id107488/#sju%20a April 24th 2018.

Ragin, C. (1987). *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*. Berkeley: University of California Press.

Ragin, C. (1992). "'Casing' and the process of social inquiry", In C. C. Ragin & H. S. Becker (eds.). *What is a Case? Exploring the foundations of social inquiry* (217–226). Cambridge: Cambridge University Press.

Rao, P. S. (2017). "Uber Hit With New Blow in London as Panel Says Drivers Aren't Self-Employed", *The New York Times.* Accessed from https://www.nytimes.com/2017/11/10/business/uk-uber-london.html September 10th 2018.

Ravenelle, A. J. (2017). "Sharing economy workers: selling, not sharing", *Cambridge Journal of Regions, Economy and Society,* 10(2). 281–295.

Regulation on the AS Vinmonopolet's purchasing operations, etc. (1996). *Forskrift om AS Vinmonopolets innkjøpsvirksomhet mv.* [*Regulation on the AS Vinmonopolet's*

*purchasing operations, etc.*]. Oslo: Ministry of Health and Care Services. Accessed from https://lovdata.no/dokument/SF/forskrift/1995-11-30-938 October 24th 2018.

Regulation on the exemption from The Competition Act § 10 for cooperation on the sale of books. (2014). *Regulation on the exemption from The Competition Act § 10 for cooperation on the sale of books.* Oslo: Ministry of Trade, Industry and Fisheries. Accessed from https://lovdata.no/dokument/SF/forskrift/2014-12-19-1716 October 24th 2018.

Regulation on the market regulation for increasing the revenue of agricultural commodities. (2008). *Forskrift om markedsregulering til å fremme omsetningen av jordbruksvarer* [*Regulation on the market regulation for increasing the revenue of agricultural commodities*]. Oslo: Ministry of Agriculture and Food. Accessed from https://lovdata.no/dokument/SF/forskrift/2008-10-22-1136 October 23rd 2018.

Regulation on the Professional Transportation Act. (2003). *Forskrift om yrkestransport med motorvogn og fartøy (yrkestransportfirskriften)* [*Regulation on professional transportation with motor vehicles and vessel (Regulation on professional transportation)*]. Oslo: Ministry of Transport and Communications. Accessed from https://lovdata.no/dokument/SF/forskrift/2003-03-26-401 October 20th 2018.

Regulation on the Professional Transportation Act, Oslo. (2013). *Forskrift om godkjenning og drift av drosjesentraler og drosjeløyver i Oslo kommune (drosjeforskriften), Oslo* [*Regulation on the approval and operation of dispatching centers and taxi licenses in Oslo Municipality* (*Regulation on the Professional Transportation Act, Oslo*)]. Oslo: Oslo municipality.

Riaz, W. K. (2016). "Det blir ikke færre drosjer i Oslo", *Aftenposten.* Accessed from https://www.aftenposten.no/osloby/i/9vo0d/Det-blir-ikke-farre-drosjer-i-Oslo August 11th 2018.

Richardson, L. (2015). "Performing the sharing economy", *Geoforum*, 67. 121–129.

Rochet, J.-C. & Triole, J. (2006). "Two-Sided Markets: A progress Report", *The RAND Journal of Economics,* 36(3). 645–667.

Rolness, K. (2018). "Hvis din frisør var en taxi", *Dagbladet.* Accessed from https://www.dagbladet.no/kultur/hvis-din-frisor-var-en-taxi/69438158 August 10th 2018.

Roof, K. (2017). "SoftBank's big investment in Uber comes to a close", *Techcrunch.* Accessed from https://techcrunch.com/2017/12/28/softbanks-big-investment-in-uber-comes-to-a-close/ May 28th, 2018.

Rosenblat, A. (2018). *Uberland. How Algorithms are Rewriting the Rules of Work.* Oakland, CA: University of California Press.

Rosenblat, A. & Stark, L. (2016). "Algorithmic Labor and Information Asymmetries. A Case Study of Uber's Drivers", *International Journal of Communication,* 10. 3758–3784.

Rothman, S. (2016). "Why Uber Won", *Business Insider.* Accessed from

http://www.businessinsider.com/why-uber-won-2016-4?r=US&IR=T&IR=T June 11th, 2018.

Ryen, A. (2004). "Ethical issues", In C. Seale, G. Gobo, J. F. Gubrium & D. Silverman. (Eds.). *Qualitative research practice* (218–238). London: Sage.

Savat, D. (2009). "Introduction: Deleuze and New Technology", In D. Savat & M. Poster (eds.). *Deleuze and New Technology* (1–12). Edinburgh: Edinburgh University Press.

Scholz, T. (2017). *Uberworked and Underpaid: How Workers Are Disrupting the Digital Economy*, Cambridge: Polity Press.

Schor, J., B. (2017). "Does the sharing economy increase inequality within the eighty percent?: findings from a qualititative study of platform providers", *Cambridge Journal of Regions, Economy and Society,* 10(2), 263–279.

Schor, J. B. & Attwood-Charles, W. (2017). "The 'sharing' economy: labor, inequality, and social connection on for-profit platforms", *Sociology Compass,* 11, 1–16.

Schor, J. B. & Fitzmaurice, C. J. (2015). "Collaborating and Connecting: The emergence of the sharing economy", In L. Reisch and J. Thorgersen (eds.), *Handbook on Research on Sustainable Consumption* (410–425). Cheltenham, UK: Edward Elgar.

Schwartzman, H. B. (1993). *Ethnography in Organizations. Qualitative Research Methods Series 27.* London: Sage.

Seale, C. (2004). "Quality in Qualitative Research", In C. Seale, G. Gobo, J. F. Gubdrium & D. Silverman (eds.). *Qualitative Research Practice.* London: Sage.

Seljehaug, J. I. (2018). "Renault Zoe med NSB-deal", *Hegnar Media.* Accessed from https://www.hegnar.no/Nyheter/Motor/2018/10/Renault-Zoe-med-NSB-deal October 14th 2018.

Shammas, V. L. (2018). "Superfluity and insecurity: Disciplining surplus populations in the Global North", *Capital & Class,* 42(3). 411–418.

Shammas, V. L. (Forthcoming). "The anti-surplus state: Putting surplus populations to work", *International Journal for Crime, Justice and Social Democracy*. Accessed from https://www.researchgate.net/profile/Victor_Shammas/publication/327035228_The_anti-surplus_state_Putting_surplus_populations_to_work/links/5b73f8bfa6fdcc87df7e78ed/The-anti-surplus-state-Putting-surplus-populations-to-work.pdf August 28th 2018,

Slee, T. (2015). *What Yours is Mine. Against the Sharing Economy.* New York: OR Books.

Snaith, E. (2018). "Uber strike: Drivers to stage 24-hour walkout in London, Birmingham and Nottingham over pay and conditions", *The Independent.* Accessed from https://www.independent.co.uk/news/uk/home-news/uber-strike-drivers-london-birmingham-nottingham-pay-conditions-ride-hailing-app-a8575101.html October 22nd 2018.

Solem, L. K. (2018). "Taxinæringen bremser opp – privatsjåfør-selskaper vokser", *Dagens*

*Næringsliv*. Accessed from https://www.dn.no/nyheter/2018/08/05/1732/Samferdsel/taxinaeringen-bremser-opp-privatsjafor-selskaper-vokser August 13th 2018.

Somerville, H. (2018). "Uber narrows loss but is a long way from finding profit", *Reuters*. Accessed from https://uk.reuters.com/article/us-uber-results/uber-narrows-loss-but-is-a-long-way-from-finding-profit-idUKKBN1L0202 September 11th 2018.

SOU 2017:24. *Ett arbetsliv i förändring – hur påverkas ansvaret för arbetsmiljön?* [*A changing labor market – how is the responsibility for the working environment influenced?*]. Swedish Official Report 24, 2017. Stockholm: Arbetsmarknadsdepartementet. Accessed from https://www.regeringen.se/496173/contentassets/93df7ab18b704a8ab655080cb498dfd1/ett-arbetsliv-i-forandring--hur-paverkas-ansvaret-for-arbetsmiljon-sou-201724 September 21st 2018.

Språkrådet. (2014). "Årets ord: framandkrigar/fremmedkriger", *Språkrådet.* Accessed from https://www.sprakradet.no/Vi-og-vart/hva-skjer/Aktuelt/2014/Arets-ord-framandkrigarfremmedkriger/ October 21st 2018.

Srnicek, N. (2017). *Platform Capitalism*. Cambridge: Polity Press.

Statistics Norway. (2018). "Lønn, alle ansatte", *Statistisk sentralbyrå*. Accessed from https://www.ssb.no/arbeid-og-lonn/statistikker/lonnansatt August 30th 2018.

Stephany, A. (2015). *The Business of Sharing. Making it in the New Sharing Economy*. Basingstoke, Hampshire: Palgrave McMillian.

Stiglitz, J. E. (2016). "Inequality and Economic Growth", in M. Jacobs & M. Mazzucato (eds.). *Rethinking Capitalism. Economics and Policy for Sustainable and Inclusive Growth* (134–155). Oxford: Wiley-Blackwell.

Streeck, W. (2016). *How Will Capitalism End? Essays on a Failing System*. London: Verso.

Stuvøy, I. (2018). *Parenthood at a price. Accounting for the viability of transnational surrogacy* (Doctoral dissertation). Department of Sociology and Political Science, NTNU

Sørgard, L. (2018). "Drosjer på tomgang er sløsing", *Dagens næringsliv.* Accessed form http://www.konkurransetilsynet.no/nb-NO/aktuelt/artiklar-og-innlegg/kronikk-drosjer-pa-tomgang-er-slosing/ August 28th 2018.

Taplin, J. (2017). *Move Fast and Break Things. How Facebook, Google, and Amazon Cornered Culture and Undermined Democracy*. Boston, MA: Little, Brown and Company.

Taylor, M., Marsh, G., Nicol, D. & Broadbent, P. (2017). *Good Work. The Taylor Review of Modern Working Practices.* Independent report, London: Department for Business, Energy & Industrial Strategy. Accessed from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/627671/good-work-taylor-review-modern-working-practices-rg.pdf September 25th 2018.

Thagaard, T. (2013). *Systematikk og innlevelse. En innføring i kvalitativ metode* (4th edition). Bergen: Fagbokforlaget.

Thaler, R. H. & Sunstein, C. R. (2009). *Nudge. Improving Decisions About Health, Wealth, and Happiness.* London: Penguin Books.

The Competition Authority. (2015). *Et drosjemarket for fremtiden*. Konkurransetilsynet [The Competition Authority]. Accessed from http://www.konkurransetilsynet.no/globalassets/filer/publikasjoner/rapporter/rapport_drosjemarked-for-fremtiden.pdf September 5th 2018.

The Consumer Council. (2015). "Nordmenn mener taxi er for dyrt", *Forbrukerrådet* [The Consumer Council]. Accessed from https://www.forbrukerradet.no/vi-mener/2015/fpa-offentlig-2015/nordmenn-mener-taxi-er-for-dyrt/ August 28th 2018.

The Norwegian Labour Inspection Authority. (No date). "Minstelønn", *Arbeidstilsynet* [The Norwegian Labour Inspection Authority]. Accessed from https://www.arbeidstilsynet.no/arbeidsforhold/lonn/minstelonn/pageAsPdf?showAsImage=true August 30th 2018.

The Norwegian Taxi Association. (2018). "Også Uber Black drives ulovlig", *Norges Taxiforbund* [The Norwegian Taxi Association]. Accessed form http://www.mynewsdesk.com/no/norges-taxiforbund/news/ogsaa-uber-black-drives-ulovlig-297699 August 8th 2018.

Tjora, A. (2017). *Kvalitative forskningsmetoder i praksis* (3rd edition). Oslo: Gyldendal Akademisk.

Uber. (No date, a). "180 days of change", *Uber.* Accessed from https://www.uber.com/newsroom/180-days/ September 10th 2018.

Uber. (No date, b). "Cities", *Uber.* Accessed from https://www.uber.com/en-NO/cities/ September 10th 2018.

Uber. (No date, c). "Driving with Uber. How much do drivers with Uber make?", *Uber.* Accessed from https://www.uber.com/info/how-much-do-drivers-with-uber-make/" September 4th 2018.

Uber. (No date, d). "Få en prisberegning i byen din", *Uber.* Accessed from https://www.uber.com/nb-NO/fare-estimate/ September 5th 2018.

Uber. (No date, e). "How Uber works", *Uber.* Accessed from https://www.uber.com/en-NO/about/how-does-uber-work/ September 10th 2018.

Uber. (No date, f). "Hva er dynamisk prising?", *Uber.* Accessed from https://help.uber.com/nb_NO/h/34212e8b-d69a-4d8a-a923-095d3075b487 August 3rd 2018.

Uber. (No date, g). "Krav til kjøretøy. Oslo", *Uber.* Accessed from https://www.uber.com/nb-NO/drive/oslo/vehicle-requirements/ April 24th 2018.

Uber. (No date, h). "Out story. How we got started – and where we are going", *Uber.*

Accessed from https://www.uber.com/en-NO/about/ September 10th 2018.

Uber. (No date, i). "Slik fungerer ratingen", *Uber.* Accessed from https://www.uber.com/nb-NO/drive/oslo/resources/rating/ August 1st 2018.

Uber. (No date, j). "The history of Uber", *Uber.* Accessed from https://www.uber.com/newsroom/history September 10th 2018.

Uber. (No date, k). "Understanding ratings", *Uber.* Accessed from https://help.uber.com/h/95002b97-6e18-45de-a9ac-b69413cca2ab August 1st 2018.

Uber. (No date, l). "Vurdering av en sjåfør", *Uber.* Accessed from https://help.uber.com/nb_NO/h/478d7463-99cb-48ff-a81f-0ab227a1e267 August 1st 2018.

Uber. (No date, m). "What we offer", *Uber.* Accessed from https://www.uber.com/en-NO/about/uber-offerings/ September 10th 2018.

Uber. (No date, n). "Work that puts you first", *Uber.* Accessed form https://www.uber.com/en-NO/drive/ July 4th 2018.

Uber. (2014). "Uber har kommet til Tigerstaden!", *Uber*. Accessed from https://newsroom.uber.com/norway/uber-har-kommet-til-tigerstaden/ April 30th 2018.

Uber. (2016). "Uber i Oslo – en kort innføring i produktene vi tilbyr". *Uber.* Accessed form https://www.uber.com/en-NO/blog/produktene-vi-tilbyr/ July 3rd 2018.

Uber. (2017a). "Uber Community Guidelines", accessed from https://www.uber.com/legal/community-guidelines/us-en/, 20th February 2018.

Uber. (2017b). "UberLUX – eksklusiv og elegant", *Uber.* Accessed from https://www.uber.com/nb-NO/blog/lux-er-her/ September 19th 2018.

Uber. (2017c). "UberPOP på pause", Uber. Accessed from https://www.uber.com/info/uber-norge/ April 30th 2018.

Vandaele, K. (2018). "Will trade unions survive the platform economy? Emerging patterns of platform workers' collective voice and representation in Europe". Working paper, May 2018, European Trade Union Institute.

VAT act. (2009). *Lov om merverdiavgift* [*Law on value-added tax*]. Accessed from https://lovdata.no/dokument/NL/lov/2009-06-19-58 September 5th 2018.

Verhage, J. (2018). "Venture Capital Investing Hits Highest Since Dot-Com Boom", *Bloomberg.* Accessed from https://www.bloomberg.com/news/articles/2018-01-09/venture-capital-investing-hits-highest-since-dot-com-boom September 11th 2018.

Widerberg, K. (2001). *Historien om et kvalitativt forskningsprosjekt.* Oslo: Universtitetsforlaget.

Willis, P. & Trondman, M. (2000). "Manifesto of Ethnography", *Ethnography,* 1(1), 5–16.

Wisterberg, E. (2017). "I spent two weeks delivering for Uber Eats and made $4.4 per hour", *Breakit.* Accessed from https://www.breakit.se/artikel/7599/i-spent-two-weeks-delivering-for-uber-eats-and-made-4-4-per-hour September 26th 2018.

Wood, A. J., Graham, M., Lehdonvirta, V. & Hjorth, I. (2018). "Good Gig, Bad Gig: Autonomy and Algorithmic Control in the Global Gig Economy", *Work, Employment and Society*, doi.org/10.1177/0950017018785616.

Working Environment Act. (2005). *Act relating to working environment, working hours and employment protection, etc.* Accessed from https://lovdata.no/dokument/NLE/lov/2005-06-17-62 September 4th 2018.

World Economic Forum. (2016). "The future of jobs: Employment, skills and workforce strategy of the fourth industrial revolution", *Global Challenge Insight Report,* January 2016. Accessed from http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf August 28th 2018.

Zha, L., Yin, Y. & Du, Y. (2017). "Surge Pricing and Labor Supply in the Ride-Sourcing Market", *Transportation Research Procedia 23C,* 2–21.

Zysman, J. & Kenney, M. (2017). Intelligent Tools and Digital Platforms: Implications for Work and Employment", *Intereconomics. Review of European Economic Policy,* 52(6). 329–334.

Zysman, J. & Kenney, M. (2018). "The Next Phase on the Digital Revolution: Intelligent Tools, Platforms, Growth, Employment", *Communications of the ACM*, 61(2). 54–63.

Østerberg, D. (1988). *Metasociology. An Inquiry into the Origins and Validity of Social Thought.* Oslo: Norwegian University Press (Universitetsforlaget).

Østerberg, D. (1993). "Metasosiologisk essay", In D. Østerberg, *Fortolkende sosiologi I. Almene enmer og metodologi* (2nd edition) (11–64). Oslo: Universitetsforlaget.

Aarhaug, J. (2014). *Taxis as urban transportation,* Institute of Transport Economics/Norwegian Centre for Transport Research. TØI report 1308/2014.

Aarhaug, J. (2017). *Bare Ma(a)S? – Morgendagens transportsystem i storybyregioner?,* Institute of Transport Economics/Norwegian Centre for Transport Research. TØI report 1578/2017.

Aase, T. H. & Forssåskaret, E. (2014). *Skapte virkeligheter. Om produksjon og tolkning av kvalitative data* (2nd edition). Oslo: Universitetsforlaget.

All sources used in this thesis have been referenced above.

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# Appendix A: Invitation to Participate in Study

**Forespørsel om deltakelse i forskningsprosjektet**

## "Arbeid i plattformøkonomien. En kvalitativ studie av Uber"

***Vil du være med i min undersøkelse?***
Mitt navn er Sigurd Oppegaard og jeg skriver masteroppgave i sosiologi på Universitetet i Oslo. Oppgaven min handler om selskapet Uber og arbeidet Uber-sjåfører som kjører for Uber Black, XXL og Lux utfører.

Jeg ønsker derfor å komme i kontakt med deg som er Uber-sjåfører i Oslo.

**Hva innebærer deltakelse i studien?**
Jeg vil gjennomføre en observasjonsstudie. Det betyr at deltagelse i studien innebærer at jeg er tilstede mens du utfører ditt arbeid som Uber-sjåfør. Jeg vil i samråd med hver enkelt deltager i studien utarbeide en strategi for hvordan vi organiserer observasjonen, slik at det ikke går ut over sjåførens arbeid. Passasjerer vil bli informert om min rolle som forsker og spurt om hvorvidt de ønsker å delta i studien. Ønsker de ikke det, vil jeg ikke ta notater fra den turen. Etter hver runde med observasjon vil jeg skrive feltnotater som utgjør datamaterialet for min analyse.

Hvis du ikke ønsker at jeg observerer deg mens du kjører, men likevel vil delta i studien, kan vi også avtale at jeg bare intervjuer deg.

Jeg er interessert i spørsmål knyttet til hvordan du som sjåfør legger opp din arbeidsdag, hvordan du bruker og forholder seg til Ubers teknologi og retningslinjer, interaksjon med passasjerer og din forståelse av eget arbeid.

**Hva skjer med informasjonen om deg?**
Alle personopplysninger vil bli behandlet konfidensielt. Jeg vil anonymisere alle egenskaper og kjennetegn som kan gjøre at deltagere i studien kan identifiseres allerede i feltnotatene. Feltnotatene vil oppbevares i et låst skap. Hvis det blir aktuelt med opptak av intervjuer, vil disse anonymiseres i transkriberingsprosessen. Deretter vil jeg slette opptakene. I publikasjonen vil ingen deltakere kunne gjenkjennes.

Prosjektet skal etter planen avsluttes i slutten av november 2018. Når oppgaven er ferdig vil all informasjon som kan identifisere deg destrueres.

**Frivillig deltakelse** Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert.

Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med meg på telefon (47369727) eller epost (sigurd.m.n.oppegaard@gmail.com) eller min veileder professor Lars Mjøset på telefon (47601198) eller epost (lars.mjoset@sosgeo.uio.no).

Studien er meldt til Personvernombudet for forskning, NSD – Norsk senter for forskningsdata AS.

Jeg setter stor pris på om du ønsker å delta i denne undersøkelsen!

# Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta

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(Signert av prosjektdeltaker, dato)