

MASTER THESIS

Dignified gig work: towards better conditions for algorithmic management

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Summary

The **purpose** of this research is to explore under which conditions 'worker dignity' is enabled and restrained by algorithmic management in the gig economy. As such, this thesis is led by the following **research question**: *Under which conditions can algorithmic management enable and restrain dignity in gig work?* By conducting this research, two contributions can be made to existing bodies of literature. First, novel insights are expected in addition to the social science studies on gig work and algorithmic management as the philosophical lens of human dignity is introduced to investigate these phenomena. Second, the explored practices in the gig economy might bring innovative ideas on dignity of work for the field of philosophy.

The study is based on a **multi-method approach**. As a start, a **literature research** is done (in the fields of philosophy and social sciences) and **expert-interviews** are conducted to build an understanding of the dignity of work, the phenomenon of algorithmic management and gig work. Bridging these three literatures resulted in relevant topics that set the ground for **semi-structured interviews** among gig workers in the Netherlands, that are aimed on exploring various visions on gig work and the conditions under which the dignity of workers is enabled and/or restrained by the algorithmic HR decision making systems they interact with.

The results are manifold. A major **finding** of this study is the insight that **various kinds of conditions** can play a role in the vision gig workers have on the dignity of algorithmic management. These are **social** conditions (such as the contractual arrangement of the worker), **technological** conditions (such as the specific features of the platform) and **personal** conditions (which are mainly the dependence on the work and the attitude of the worker towards the algorithmic system).

The **conclusion** is twofold. In a broader sense it is suggested that the literature on dignity and work is at least challenged by the idea of algorithmic management and platform work and traditional theories of workplace-, worker- and work-dignity can be used to investigate these phenomena when adjusted to the (on-demand, online and offline) socio-technical character of this work arrangement. More concretely, it is concluded that for dignified algorithmic management in gig work, at least the following conditions should be met: (a) the platform safeguards respectful (human) interaction, (b) AM tools are beneficial for workers too, (c) the platform is transparent about data gathering and decision-making, (d) the platform involves workers and provides feedback possibilities, (e) the platform promotes the development of skills and growth.

Keywords: Algorithmic management, dignity, worker dignity, gig work, platforms

Abbreviations

AI	Artificial Intelligence
App	Application
AM	Algorithmic Management
CI	Categorical Imperative
DMM	Digitalized Management Methods
EC	European Commission
GW	Gig Work
HD	Human Dignity
HRM	Human Resource(s) Management
PA	People's Analytics

List of figures

Figure 1: Are we treating gig workers as individuals?	26
Figure 2: Text box Good profit	35
Figure 3: The hybrid workplace of a gig worker.....	45
Figure 4: Text box algorithms	46
Figure 5: The functioning of a simple algorithmic system.....	48
Figure 6: The output of the AM system for UberEATS workers.....	49
Figure 7: A schematic overview of algorithmic management	57

List of tables

Table 1: Overview dignity and dignity aspects.....	39
Table 2: Operationalisation dignity aspects	75
Table 3: General information and conditions gig workers.....	80

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Table of Contents

Summary	1
Abbreviations	2
List of figures	2
List of tables	2
Acknowledgements	2
Table of Contents	3
1. Introduction	5
2. An introduction to dignity	14
2.1. Dignity as a cornerstone concept	15
2.2. Inherent dignity	17
2.2.1. Kantian deontology: means and ends	19
2.2.2. The dichotomy between inherent dignity and industry	23
2.2.3. Empirical research into inherent dignity (violations)	28
2.3. Contingent dignity	31
2.3.1. The fundamentals of virtue ethics	33
2.3.2. Virtue ethics and work	35
2.4. Conclusion	38
3. Algorithmic management	41
3.1. An algorithm as a boss	41
3.1.1. The rise of algorithmic management	42
3.2. The algorithmic systems	46
3.2.1. Input, throughput and output	47
3.3. Opening up the black box	50
3.3.1. The managerial tasks and analytic power	51
3.3.2. The analytic power	53
3.4. Conclusion	58
4. The gig economy: how it works	60
4.1. The brave new economy	60
4.2. Characteristics of gig work	62
4.3. Conditions of (gig) work	66
4.4. Conclusion	70

4.5. Bridging three literatures: topics of discussion	72
5. Research design and interviews	73
5.1. Clarification of multi-method approach	73
5.2. Operationalisation	75
5.3. Recruitment, population and sample size	77
5.4. Data collection	78
5.5. Ethics	79
5.6. Results and discussion	79
Results of found indicators of worker dignity	80
6. Conclusion: bringing the human back into AM	89
6.1. The findings	89
6.2. Contributions	92
6.3. Suggestions for further research	93
Bibliography	95
Appendices	100
The interview protocols	100
A. Interview protocol gig worker	100
B. Interview protocol algorithm-programmer	102
C. Interview protocol restaurant worker	103
D. Interview protocol helpdesk worker	104
E. Interview protocol middle manager	105

1. Introduction

Over recent years, the use of algorithms has been growing in most – if not all – domains of society and has entered the realm of labour as well (Lieman, 2018). Without a doubt, it can be said that this introduction has shaken up our community. Questions about working with – or even *under the supervision of* – algorithms have arisen, and there is a fierce debate going on about the benefits and downfalls of such algorithm-based work practices (Rosenblat & Stark, 2016; Lieman, 2018). Particularly much attention is given to the question: *What does it mean when your boss is an algorithm?*.¹ In her 2018 article in the New York Times, Alex Rosenblat, an expert on the matter and author of the book *Uberland: How algorithms are rewriting the rules of work* (2018), asks a similar question. In a preview on her upcoming book, she writes: “There are nearly a million active Uber drivers in the United States and Canada, and none of them have human supervisors. It is better than having a real boss, one driver in the Boston area told me, except when something goes wrong.” (Rosenblat, 2018).

The phenomenon Rosenblat describes is referred to as *algorithmic management*, an umbrella term that includes a sundry set of technological tools and techniques that are used for managing workforces (de Stefano, 2017). More specifically, algorithmic management (hereafter: AM) allows to structure the conditions of work and manage workforces remotely (Lee et al., 2018). In an article on the relation between AM and gig work², which is the practice of finding and accepting jobs (or rather gigs) mediated by (multi-sided) platforms such as Uber or UberEATS, Duggan and peers define the AM structures as follows: “a system of control where self-learning algorithms are given the responsibility for making and executing decisions affecting labour, thereby limiting human involvement and oversight of the labour process.” (Duggan et al., 2019, p. 199).

It must be noted that there are many ways in which AM can be applied and to discuss it as a phenomenon with a single manifestation would be mistaken (Eyert et al., 2018). However, in general, it is essential to understand that these AM systems are building on more traditional management structures that rely on human supervisors and that algorithmic technology enables the scaling of such operations by, for example, coordinating the activities of large, disaggregated groups of workers (Mateescu & Nguyen, 2019). Alternatively, this can be done by using data to

¹ One example of an article addressing this question, is the following: <https://www.bbc.co.uk/ideas/videos/what-to-do-if-your-boss-is-an-algorithm/p0758250>.

² The notions ‘gig work’ and ‘platform work’ are used interchangeably in this thesis.

optimize the chances of desired outcomes like lower labour costs (*idem*). These technological assets are relying on big data collection and the surveillance of workers to, eventually, enable automated or semi-automated decision-making (Leicht-Deobald et al., 2019).

While these novel managerial techniques are used in many work situations, particularly much attention is given to its appliance in gig work (Mateescu & Nguyen, 2019). As mentioned, gig work is the practice of finding and accepting jobs (or rather gigs) mediated by platforms that bring various groups of users together in order for them to connect and interact (Reillier & Reillier 2017; Srnicek 2017). The idea behind the online labour platform is that the platform does not employ the workers, but only provides the (online) location for the various parties to be linked. The new techniques of platform businesses are typically seen as one of the first manifestations of AM (Mateescu & Nguyen, 2019).

Platforms and the platform business strategy are booming, and it is good to take a moment to elaborate on the scope of the situation. Yablonsky (2018) sketches the significance of these platforms as he notes that prominent platform-companies have a high accumulated market value and an impressive employment base. Moreover, he states that in 2014, sixteen of the twenty-five most valuable brands were functioning as platforms (Yablonsky, 2018, p. 1-2). He further specifies: “Among the largest IPOs of the last few years, many are multi-sided platforms: Alibaba, the biggest IPO ever, with \$25 billion; Visa, \$19.7 billion; Facebook, \$16 billion; Twitter, \$2.1 billion; Google, \$1.67 billion; LinkedIn, \$1.2 billion; Groupon, \$700 million.” (Yablonsky, 2018, p. 2).

Thus far, it is clear that platforms are getting more and more critical as they are growing in numbers: not only in dollars but in terms of employment too. However, when speaking about their employment base, this does not involve those workers engaging in platform work. Instead, these employees are those working at offices, in marketing or at support services. One may ask, then: what status do the people have that are working with the Uber application (or similar apps)? This status is controversial, but inherently connected with the business strategy of platforms.

Without a doubt, the most often quoted expression on the strategy of platform businesses is one by Tom Goodwin: “Uber, the world’s largest taxi company, owns no vehicles. Facebook, the world’s most popular media owner, creates no content. Alibaba, the most valuable retailer, has no inventory. And Airbnb, the world’s largest accommodation provider, owns no real estate. Something interesting is happening.” (Reillier & Reillier, 2017, p. 1). What Goodwin aims at is the

fact that typically, the only thing a platform such as Uber or Airbnb does, is connecting various kinds of users. Consequently, platform organizations have their way of ascribing a ‘partnership’ to the users of their services. Uber does not own the cars that are used for transportation. The company only provides services and an online marketplace to connect the drivers to the other users. This means that people who engage in platform work are not only managed by algorithms; they also do not have an employment status (Duggan et al., 2019; Griesbach et al., 2019; Rosenblat & Stark, 2016). And this has various consequences.

Going back to Rosenblat, who gives an insight into the working life of an Uber driver, both the positive and the negative sides of working under AM are quite visible – and she is not the only one stressing the implications of the situation. Where on the one hand, articles report on the tremendous amounts of freedom gained through the possibility of working with an application, on the other hand, people write about poor safety and quality of work, or the lack of autonomy for these workers (Wood et al., 2019; Shapiro, 2017).³ Others focus on the possibilities of misusing data gathered at the workplace (Floridi, 2016). But most fundamental is the concern that algorithmic management has turned workers into *instruments* rather than people.

Even though management by algorithms is not exclusive for platform work, the platform economy is both the domain where the utilisation of such systems was initiated and the sector in which AM is put to use most intensely. This makes it a logical starting point for thinking about the implications of AM. But what makes the situation of gig workers under algorithmic management most pressing and needy of investigation (instead of in-company uses of algorithmic software), is the fact that gig workers are often managed by strong managerial techniques, but not treated and seen as employees (Duggan et al., 2019; Griesbach et al., 2019; Rosenblat & Stark, 2016). The combination of these two aspects of the worker-platform relation are said to have great advantages for the platform, while workers seem to pay a serious price (*idem*). Consequently, it is not surprising that Uber-like ride-hailing apps have been the centre of attention in efforts to untangle the algorithm-worker relationship in labour-situations – efforts which point us towards serious, mundane consequences.

At the time of writing, not only in popular media but in academia too, the phenomenon of platform work has gained much attention. There are several relevant prior studies and articles worth mentioning. For example, there are case studies on various platforms such as Airbnb (Cheng &

³ This indeed sounds contradicting, but it will become clear that the freedom and flexibility that is promised by platforms controversial because of the steering methods that arguably limit these freedoms in gig work.

Foley, 2019), food delivery in general (Griesbach et al., 2019) but also on Uber (Duggan et al., 2019; Mateescu & Nguyen, 2019; Rosenblat & Stark, 2016), that focus on applications of AM. And there are plenty of other publications on platform work and AM, from all kinds of disciplines, each zooming in on different aspect. Interest has been expressed in questions on the value of labour and work (e.g. Escajeda, 2019), the relation between gig work and exploitation (e.g. van Doorn, 2017) and comes from various corners from economy (e.g. Srnicek, 2018) and HRM (e.g. Meijerink & Keegan, 2019) to combined social sciences (e.g. Eyert et al., 2018).

Nevertheless, when approaching this phenomenon from a philosophical angle, a relevant question seems to be whether the use of algorithmic management is affecting the *dignity* of the workers. It is quite remarkable that extensive research into this relationship is not yet conducted – and this is precisely the gap that this thesis tries to fill. Dignity is a concept that is employed in miscellaneous philosophical analyses but is also regularly used to shine a light on work-situations (Lütge, 2013; Debes, 2017). Most broadly speaking, the notion of dignity refers to *the quality of being worthy or honourable* (McCradden, 2014; Debes, 2017). For human dignity, this means, at its most basic, that all people hold an exceptional value that is linked solely to their humanity (e.g. McCradden, 2014; Lütge, 2013; Debes, 2017).

In a book on the concept of the meaning of human dignity in current debates, the scholar McCradden kicks off with the following observation: “The concept of human dignity has probably never been so omnipresent in everyday speech, or so deeply embedded in political and legal discourse. In debates on welfare reform, or in addressing the effects of the current economic crisis, appeals to dignity are seldom hard to find.” (McCradden, 2014, p. 1). In other words, the notion of dignity seems to have an essential role in our daily conversations and fundamental debates. In the debate on platform work, dignity seems to be an essential aspect as well, albeit that it is not (yet) explicitly stated. The concerns that are expressed on the *work-satisfaction* of the workers (SEO Amsterdam Economics, 2018), their *personal integrity* (Leicht-Deobald et al., 2019) and, for example, the claims about the *endangered autonomy* of the workers (Shapiro, 2017), are all of importance in assessing the dignity of platform workers. However, dignity consists of more ingredients than, for example, only autonomy. Consequently, using dignity as a lens might lead to more fundamental and complete conclusions about AM in platform work.

Moreover, the main reason to use dignity as an analytic angle for the research into AM is already hinted on in this introduction: the fear that AM might reduce the platform workers to mere *instruments* or *means* calls for an investigation. Dignity is the quintessential concept for

scrutinizing situations in which people are endangered by instrumentalizing actions and matters. The fact that the dignity of platform workers is not overwhelmingly represented in scholarship is thus remarkable. In an effort to fill up this gap, the contribution of this thesis to previous research is twofold.

Firstly, this research can contribute to the *social sciences* and the literature on platform work. As mentioned, there is no study conducted up until now that specifically dealt with the dignity of the platform workers under algorithmic management. While terms like autonomy and well-being are often used in the debate on platform- or gig workers (aspects that traditionally are believed to be part of, related to and/or construct dignity) no one yet has dealt with the question whether (human) dignity can be violated and/or enabled in these kinds of labour-situations (Bal, 2017). As such, this thesis may provide new insights on the AM practices in the platform economy via this philosophical road – hoping to find more comprehensive insights on the effects of AM on the workers.

Secondly, the discussion in this thesis contributes to the field of *philosophy* and the literature on human dignity. Traditionally, dignity has been an important moral principle when speaking about work or labour (Lütge, 2013). Lots of theories exist about the relation between dignity and work, referred to and elaborated upon from various branches of moral philosophy. When it comes to evaluating situations in which people are endangered by instrumentalizing factors, most often the road of Kantian philosophy is taken. It would indeed be naïve to ignore the Kantian vision on the severity of dignity violations. However, it will be argued that a proper exploration of worker dignity, should not only be focused on possible violations of dignity, but should try to enlighten the conditions that enable one's dignity too. As a result, the second branch of moral philosophy that is discussed is virtue ethics. This perspective allows to explore AM in gig work from a different angle and is expected to bring valuable insights too.

Yet, there is an additional contribution to make to the existing literature on dignity and work. By contrasting existing conceptualizations of human dignity with work practices in the platform economy, new insights may arise on the mere idea of dignity and work. The question of what or who has dignity (or in other words, what the subject of dignity is) in those labour situations is of importance here. Many answers to these questions exist. To give only a few examples, authors have written about the dignity of *workers*, dignified *work* and dignity of the *workplace* (Bal, 2017; Bolton, 2005; 2007). However, as platform work is differing from more traditional work-practices

so sharply, it does not seem to be the case that these traditional conceptualizations of work(er) dignity are directly applicable to the practice of platform work. Let me elaborate on this dichotomy briefly.

There are several aspects that make an analysis of the dignity in platform mediated labour both exciting and rather difficult. There are, for example, theories about the dignity of the workplace that could be used as an entrance point (Bal, 2017; Nikolaeva & Della Russo, 2017). However, as platform workers have (a) an online environment and/or (b) the whole city-centre as their workplace, the conditions seem to differ too strongly from more traditional workplace analyses to apply these dignity concepts directly in this new context. Another focus could be the dignity of the worker. However, as was noted before, platform workers have a unique novel status that is – at this point – not directly comparable with other employee- or work-statuses (Duggan et al., 2019).

To exemplify this mismatch: theories about dignity that are connected to good employers, do not seem to work in this new context – for gig workers do not have a human ‘boss’. In addition, there does not seem to be a single type of platform worker, as people have very different motivations to engage in platform work, all the way from people who depend on it as it is their primary occupation, to those who can be considered hobbyists. Consequently, the existing dignity-of-work-approaches are challenged by the heterogeneity of gig workers too. An alternative might be to zoom in on the influences of worker-product relations. The first challenge to more traditional notions is the fact that the product of platform work is often a service (Ticona, Mateescu & Rosenblat, 2016). Even more interestingly, while doing gigs, the workers produce much data (also referred to as ‘soft surveillance’), which they cannot directly identify as their product but still has a great value (*idem*). This means that theories of alienation⁴ might be applicable here. However, again, the platform work situation is radically different from other labour situations, and the existing dignity conceptions should be confronted with the practice of gig work with care.

Altogether, combining the technological practice of algorithmic management, with the societal context of gig work and the philosophical idea of dignity is expected to provide us with new insights on all ingredients. Concretely, the goal is to (a) explore the practices in the gig economy from both a Kantian and a virtue ethics perspective and (b) it is hoped to find out which conditions of

⁴ The theoretical basis of alienation (oftentimes directly connected back to its founder Karl Marx) is the capitalistic system. The key of this idea is that the worker loses the ability to determine his own life and own destiny, as he is deprived of the right to conceive of himself as the director of his own life's actions. For elaboration, see [section 2.2](#).

algorithm-driven work are *enabling and restraining* dignity. This is done by an interdisciplinary literature study in the fields of philosophy, HRM and other social sciences, combined with expert-interviews with actors in the platform economy, and semi-structured interviews with gig workers in the Netherlands.

A brief final note on the purposes and character of this study is in place here. This study is completely set up to explore the conditions of gig workers and how these conditions influence their dignity. The goal is thus to unravel how gig workers – without having read Kant or Aristotle – refer to dignity aspects (such as autonomy and de-humanization), and to see which conditions are most important to explain their experiences. This explorative approach is believed to be more valuable than merely arguing in favour or against the use of AM. Zooming in on more specific conditions seems necessary as there are multiple ways to apply AM. Therefore, there are most probably multiple aspects that can affect dignity in relation to gig work, and there are probably more visions on the dignity of gig work among the workers. Additionally, distinguishing the conditions of work that are potentially enabling and restraining dignity allows for more specific regulations when it comes to AM, as it might unravel whether it is solely the fact people are working under the control of algorithms, or other conditions (such as the lack of employment status or specific app-features) are violating or promoting their dignity. These questions together have resulted in the following main research question: ***Under which conditions can algorithmic management enable and restrain dignity in platform work?*** In order to answer this question, the thesis is structured as follows.

Chapter 2 – An introduction to dignity

The first theoretical chapter is dedicated to introducing the philosophical concept of dignity. In line with this goal, the following sub-question is answered: ***What is (human) dignity and how can one understand dignity in the context of work?*** Building an answer to this question, [section 2.1](#) starts with a discussion of the relevance and background of the notion ‘dignity’. It is explained where the term comes from and how one should understand its use in various contexts. [Section 2.2](#) discusses the first normative approach that is used to evaluate AM, namely Kantian deontology. Because the most often heard critique on AM is its de-humanizing character, the well-known Kantian considerations on the instrumentalization of human beings are a logical starting point for this thesis. It is shown that Kantian philosophy can indeed be of help when understanding the impacts of AM, as it helps to see which factors might be violating or restraining one’s dignity. However, the goal of this thesis is to find out under which conditions AM can restrain *and* enable human dignity. As such, this section shows why the Kantian approach has its limitations too,

especially when the aim is to elucidate how algorithmic systems might *enable* the dignity of workers. For this reason, in [section 2.3.](#) the focus moves towards the second normative approach that is considered helpful in the investigation on AM: virtue ethics. This approach can help to shine a light on how dignity might be *enabled* by algorithmic management. Hence, where various branches of moral philosophy – such as Kantian deontology and virtue ethics – are oftentimes compared and believed to be competing, it is argued here that these two perspectives on dignity can *complement* each other in building an understanding of the dignity issues surrounding algorithmic management. It must be noted that no conclusions about the dignity of gig workers are drawn here just yet. [Section 2.4.](#) concludes with an answer to the central question of this chapter and an *preliminary conceptualisation* of dignity that can be used as a lens while discussing algorithmic management and platform work in the following chapters and in the empirical study that follows from them.

Chapter 3 – Algorithmic management

The third chapter is focused on the technological practice under investigation and answers the sub-question: ***What is algorithmic management, and what are the various conditions under which it is used?*** [Section 3.1.](#) starts by providing a working definition of algorithmic management. A short history and discussion of the emergence of the phenomenon are given, and it is explained what makes these new management practices so remarkable. In [section 3.2.](#), the focus shifts to a more detailed discussion of the first ingredient of AM: the algorithmic systems. This part draws from literature research but expert-interviews too. It is explained how AM can be understood as a system with input, throughput and output. Additionally, this section provides a discussion of the neutrality and objectivity of algorithmic systems. In [section 3.3.](#), the second main ingredient is discussed: the managerial practices. Here, attention is paid to the various managerial tasks that are performed by the algorithms and the various degrees of analytical power ascribed to the algorithms. The section concludes with a schematic overview of AM that combines all of the discussed considerations [the systems working, function, analytic power, and neutrality] into one scheme. Finally, in [section 3.4.](#) the conclusion is given.

Chapter 4 – The platform economy: how it works

This last theoretical chapter unfolds the context in which AM is assessed: the platform economy. It provides an answer to the sub-question: ***What does platform/gig work entail and under which conditions is it performed?*** The discussion starts with the *online labour platforms* that this thesis is focusing on. This is done to create a clear overview of the context in which AM is

discussed. A short overview of the platform economy is provided in [section 4.1](#). The scale and scope of the phenomenon are discussed along with the core concepts of online mediated (platform) work. These insights will clarify some of the discussion points that are addressed for AM. [Section 4.2](#). goes into the specific and relevant aspects of platform work, especially the ways in which platform work differs from more traditional work situations. Along the way, some aspects are highlighted that might affect dignity and make it complex to use existing dignity theories here – thereby providing some discussion points for the literature on dignity of work. In [section 4.3](#). a conclusion is provided.

Chapter 5 – Research design and methodology

After building the theoretical fundaments, the second part of this thesis is dedicated to contrasting the preliminary conceptualisation of worker dignity as given in Chapter 2. with experiences of gig workers in the Netherlands. This chapter explains the research design of this study and the methodological choices that are made. Most importantly, it discusses the idea behind the chosen multi-method approach and why this fits the explorative character of this study. Matters of sampling, operationalization and interview protocols are discussed.

Chapter 6 – Conclusion

In the final chapter, an answer is provided to the research question: ***Under which conditions can algorithmic management enable and restrain dignity in gig work?*** To recap how this answer was postulated, the findings of the theoretical chapter are repeated in brief. More interestingly, the components of inherent and contingent dignity that were articulated/touched on by the workers are connected to the conditions that were mentioned in the interviews. It is elaborated which implications the findings can have and which conditions should be met to work towards dignified gig work and how we can bring the human back into AM.

2. An introduction to dignity

The goal of this thesis is to explore under which conditions the practice of algorithmic management enables and restrains the dignity of workers in the platform economy. The theoretical framework of this thesis thus holds three main elements: a philosophical concept (dignity), a technological practice (algorithmic management) and a societal context (work in the platform economy). This first theoretical chapter is dedicated to introducing the philosophical element within this framework: the concept of (human) dignity.

The concept of human dignity resonates in political and legal discussions and has been a core principle in moral and political philosophy for centuries. Discussion of the issues surrounding the dignity of human beings can be traced all the way back to Aristotle, to whom dignity is a matter of honour and recognition (Bolton, 2005; Bal, 2017). Later political philosophers, like Hobbes, connected dignity to the free will (Debes, 2017), and perhaps the most prominent philosopher to have written about dignity is Immanuel Kant, who famously claimed that dignity is about the intrinsic value of human beings and the respect for individuals that comes forth out of this principle (Bal, 2017).

There are many theories about (human) dignity and about the relationship between dignity and work. Dignity is seen as the quintessential concept to investigate situations with a de-humanizing and/or instrumentalizing character. Rethinking the upmost concern that was shared about gig workers, namely the instrumentalized worker-platform relation, it is evident why dignity is the route to study this phenomenon. The most obvious approach to investigate such claims, might be Kantian philosophy. Kantian thinking focuses directly on the severity of treating people as *mere means to an end* (or in other words, to instrumentalize them). As such, the first perspective of dignity that is discussed here is the Kantian way of thinking, which is built on the idea of *inherent* dignity – the kind of dignity that resides in the human being and is not to be violated.

However, there is another prominent branch of moral philosophy that offers an insightful perspective on dignity, that just as well provides an answer to the de-humanizing practices: virtue ethics. This approach focuses on contingent dignity, which is to be earned by people and can be enabled by certain practices, situations, and character development. The foremost reason why this branch of moral philosophy is expected to be of interest in investigating the dignity of gig workers, is that platforms have far reaching ways of steering and incentivising their worker's

behaviours. As such, the question is whether these steering mechanisms are in line with the idea that the workers must be able to develop their own character and capabilities, rather than being instrumentalized for the platforms purposes. Kantian ethics and virtue ethics thus provide two different dignity perspectives. The goal here is not to compare these approaches and eventually choose between both. Rather, it will be argued that both frameworks can be insightful to explore the practices of AM in the gig economy. In other words, it is argued that they can complement each other. This chapter is thus providing the lenses through which worker dignity can be explored in the following chapters and it answers the following sub-question: ***What is (human) dignity and how can one understand dignity in the context of work?***

2.1. Dignity as a cornerstone concept

The concept of human dignity is omnipresent in our daily discourses. It is used in articles on the Corona crisis of 2020, discussions on racism and the consequences of economic crises.⁵ It echoes in courthouses, political debates, at kitchen tables and it resonates in the most powerful speeches our generations have ever heard. The weight of this notion is not taken up lightly in our legal systems either. The European Court of Human Rights prescribes that “human dignity is the foundation of all human rights” (McCrudden, 2014, p. 1). As a result, dignity is seen as a solid ground for many legal arguments. Taking all this into consideration it can be concluded that dignity is an essential notion in many facets of our global society, among which that of labour.⁶ Nevertheless, most people do not immediately have a clear-cut understanding of ‘dignity’ when they are confronted with the notion.

Christopher McCrudden, professor of human rights law, strongly opens with precisely this utterance in his volume on the concept of human dignity. He writes: “The power of the concept of human dignity is unquestionable. It appears to present a simple command to all of us: that we (individually and collectively) should value the human person, simply because he or she is human. However, are we all singing from the same hymn sheet when we use the concept of human dignity, and is it a problem if we are not?” (McCrudden, 2014, p. 1). McCrudden addresses a vital point here. At its most basic, the notion of dignity refers to *the quality of being worthy or honourable* (McCrudden, 2014; Debes, 2017). However, as the word ‘dignity’ is used in different contexts and

⁵ An exemplary article on dignity and the impacts of COVID-19 is the following one:
<https://www.un.org/en/coronavirus/our-response-covid-19-must-respect-rights-and-dignity-older-people>.

⁶ It must be noted that, although it is lightly touched upon, little attention is given in this study to intercultural differences among the understanding of dignity.

semantic fields, it has variations in meaning, scale and scope. Consequently, when hearing or using the term, people should be clear about the meaning they ascribe to it.

Etymology

A first step for building an understanding of what dignity means is going back to its initial use and etymological meaning. In discussions on dignity, most often people speak of ‘human dignity’. This English variant of the expression consists of two main elements: the noun ‘dignity’ and the specifying predicate ‘human’. This means that the dignity under investigation here, is the humankind. Etymologically reviewing the word *human* is illuminating too. The word ‘human’ is related to the Latin word for earth, which is *humus*. ‘Human’ thus means what is ‘earthly’. In general terms it is referred to as what is part of ‘our’ kind, the kind that ‘we’ are, the earthly rational animals, referring in particular to being part of this species, namely: ‘humanity’.

The first uses of dignity language can be traced back all the way to Ancient Greece and to Roman thinkers such as Cicero (McCradden 2014; Bal, 2017). The Greek spoke of nobility, which was used to describe one's noble rank or virtuous characteristics. Within this aristocratic perspective, nobility is what today would be referred to with dignity. From Roman thinkers onwards, the notion of dignity is used as known today. In fact, the notion stems from the Latin ‘*Dignitas*’ which roughly translated means glory or prestige (McCradden 2014; Bal, 2017). From the Middle Ages onwards, the idea of dignity has been fundamental for the development of our societies. Kateb (2011) illustrates this fundamental role with the examples of struggles against slavery and the movements striving for democracy, all the way to the establishment of the contemporary human rights foundations. McCloskey describes how the idea of dignity can be seen as a pillar of our moral and political traditions (2010). This is not at the least proven by its presence in many bodies of academic literature.

However, while the importance of dignity throughout history might have been tremendous and its relevance might seem unquestionable, this does not mean that the exact meaning of dignity is unquestionable too. Scholars have identified various interpretations of the notion that have played a significant role throughout history. Three interpretations are of particular importance (Pirson et al., 2016). First there is the idea of intrinsic dignity. In this interpretation, dignity is a category that represents everything that possesses some sort of *intrinsic* value. The 13th-century philosopher Thomas Aquinas (1225-1274) wrote that dignity concerns everything that is valued based on: “[...] something’s goodness on account of *itself*.“ (Rosen, 2012, pp. 16-17, italics added). Perhaps the most essential philosopher to develop this idea further was Immanuel Kant. He grounded his

philosophy on the idea that dignity is an intrinsic value and suggested that dignity should be seen as a category for all and everything that has value which *cannot be replaced* (Pirson et al., 2016). This dignity perspective is most general of the three. More specific are the ideas of *inherent* dignity and *contingent* dignity. These interpretations will be discussed in detail in [section 2.2](#) and [section 2.3](#), respectively, but in short, the main difference between these perspectives is that inherent dignity is the value that is tied to the human being's essence. It is inclusive in that sense that every human being has it, and therefore it becomes a relevant matter when it is violated. Contingent dignity is the kind of value that can be earned. This means that this kind of dignity becomes a matter of interest when it needs to be promoted or stimulated. In other words: the starting point for both lines of thinking is different, yet evenly interesting, and presumably complementary. Both routes are discussed in turn.

2.2. Inherent dignity

As was already stated, the focal point of Kantian philosophy of dignity is the idea of *inherent* dignity. Therefore, a brief introduction and background of this notion is in place. The notion of inherent dignity has come a long way. During antiquity and the Middle Ages⁷, human beings were always considered 'special' and dignified. Early arguments in favour of human dignity were concerned with ascribing special status to the human being, especially in contrast with other animals and forms of life (Pirson, Dierksmeier, & Goodpaster, 2015). The human capabilities were emphasized by their differences from other living beings. This idea was *inclusive* in the sense that this special status concerned all human beings. At the same time, the human being was seen as *vulnerable* (Pirson et al., 2015). This meant that *protection* for human beings and their special status was essential (*idem*).

There were, for example, the Stoic philosophers that advocated a form of universally shared human dignity (McCradden, 2014).⁸ There were also Christian thinkers using biblical sources to advocate the idea that all humans are created by the image of God⁹ and thereby have dignity (Pirson et al., 2015). The tradition of linking dignity to the creation of God is plentiful. Thomas Aquinas quite likely built the underpinnings for the Christian tradition that connects dignity to all people while disconnecting it from their worldly place and status (Rosen, 2012). In line with this

⁷ Antiquity is most often pinned between the 8th century BC and the 6th century, the Middle ages between the 5th century and the 15th century.

⁸ Universally shared dignity might sound conflicting with the fact that during the time of the Stoic thinkers, slavery was generally accepted. This point is addressed in the remainder of the section.

⁹ Traditionally this idea is referred to as the image of God, or: *Imago Dei*.

viewpoint it was argued that when all human beings are created by God, people should be treated with respect and devotion. This also required that societies should be organized in such a way that human dignity can be promoted and preserved. This argumentation is used more than once against cases of slavery (Rosen, 2012).

Conversely, there are plenty of dignity theories that are entirely independent of religious beliefs. As both Rosen (2012) and Dierksmeier (2011) indicate, the Renaissance thinker Giovanni Pico Della Mirandola (1463-1494) was one of the first to argue for the importance of dignity entirely regardless of religious principles. In a high-ranking work on the dignity of man¹⁰, he defends an unconditional dignity for every person. He differs from other thinkers in his time as he leaves a comparison to non-human animals or God out of the discussion (Dierksmeier, 2011; Pirson et al., 2015). Alternatively, this philosopher promotes an idea of dignity as the core of human life. In this interpretation, dignity springs from the *freedom* of human beings. This human freedom requires a “fundamental self-definition of human existence” (Pirson et al., 2015, p. 468). Humans are, according to this account, in control of their own future, and this is what bestows them their dignity (idem). Later existentialist philosophers, for instance, Jean-Paul Sartre (1905-1980), elaborated on this fundament (Pirson et al., 2015). Quite typically, existentialists argued that it is vital for human beings to be able to define who they want to be – and this is seen as a fundamental freedom.¹¹ It is not relevant in this logic whether a God exists or not: either way dignity is a universal human feature, that is, moreover, unconditional (Dierksmeier, 2011).

The existentialists were not the only ones to argue that dignity resides in human beings because they have a capacity to define their own ends (idem). This idea can be found outside of the existentialist domain too. Today, the discussion on this universal, unconditional dignity is most often linked to the philosophical heritage of Immanuel Kant (1724-1804). The main reason to discuss Kantian thinking sumptuously in this thesis, was already revealed. Since the bothers about algorithmic management that lead to this study, revolve around the de-humanization and instrumentalization of workers, not discussing the Kantian response to such practices would be ignorant as this philosophical school is most prominent for critiques on exactly these kinds of quandaries. Many contemporary theories that promote inherent dignity, are grounded on Kantian thinking. In other words, its prominence makes it crucial to explain these grounds. Certainly, Kantian philosophy is by no means the only inherent perspective on dignity. There are – to focus

¹⁰ The initial title of the work is: *Oratio de hominis dignitate*.

¹¹ This philosophical idea is referred to with the line “Existence precedes essence”.

on thinking about labour – other important thinkers that share insights about the ways in which workers can be violated by poor working conditions or mismanagement. There is a rich body of literature in the social sciences contemplating devaluation and violating of dignity at work. For instance, there are many ideas based on the famous Marxist philosophy on exploitation of workers. As such, this section not only discusses Kantian thinking, but also involves theories that touch on these ideas, or are built on inherent dignity.

2.2.1. Kantian deontology: means and ends

Like the existentialist thinkers, Kant underlines the idea that people should be able to decide on their own ends. He argued that: “Morality is the condition under which a rational being can be an end in itself since only through this is it possible to be a law-giving member in the kingdom of ends. Hence morality, and humanity insofar as it is capable of morality, is that which alone has dignity” (Kant, 1785: 4, p. 435). To fully understand what he advocates here, first it is important to understand the ‘language of means and ends’. Kant conceptualized dignity in its relation to the idea that no human should be treated as a mere *means to an end*.¹² In even stronger words, Kant stated that the human rationality and autonomy make people ‘priceless’. The philosopher makes an eminent distinction when he writes about *value* as becomes clear in the following quote: “In the realm of ends everything has either a *price* or a *dignity*. Whatever has a price can be replaced by something else as its equivalent; on the other hand, whatever is above all price, and therefore admits of no equivalence, has a dignity.” (Kant, 1785: 4, p. 428). This segment discloses the intrinsic value that was discussed as the first significant dignity perspective. On the one hand, there is economic value, that can be based on market-prices and can be exchanged on marketplaces.¹³ This concept applies, for example, to goods or services. On the other hand, there are entities that have a value that is incomparable and importantly, that cannot be decided upon by market-pricing. Such an incomparable value is dignity (Bal, 2017, p. 47). Every person has dignity, or in other words, “dignity is an existential value residing in every person” (idem).

Besides seeing people as ends in themselves, central to Kant’s idea of dignity is that it is strongly connected to people’s *autonomy*, which is the ability to formulate “self-given laws” (Bal, 2017, p. 47), or to be a “law-giving member in the kingdom of ends” (Kant, 1785: 4, p. 435). Linked to autonomy, Kant connects dignity to respect, which is referred to as the result of the fact that one

¹² In the original work, this is referred to as: Würde der menschlichen Natur, Menschenwürde, Würde der Menschheit.

¹³ In the context of discussing the platform economy it is good to mention that these marketplaces can be either offline or online.

can make their own laws. This is the nature of dignity and *inherent* to a human being.¹⁴ In other words, the ability of the human being to make one's own laws is not a status that is earned, but a status inherited to our species. Accordingly, the ability to be a moral agent should be seen as the human being's dignity.

It was stated that Kantian dignity is in a sense unconditional. The capacity to be a moral agent is what is unconditional in this context. Whether people act in line with their ability to act moral, remains conditional (Kateb, 2011). Shortly moving ahead to the discussion on contingent dignity, this conditional aspect means that the idea of contingent dignity was expressed by Kant too. Pirson stresses that: "Kant similarly suggested that human beings possessed both *absolute* and *relative* value (Pirson et al. 2016). Relative value depended on their ability and willingness to conduct themselves in an ethical manner (Kateb 2011)" (2017, p. 42). This means that the relative value that is spoken of here, is what bestows contingent dignity its contingency. But regardless this overlap, the key to Kantian thinking is the unconditional aspect of dignity, not the conditional element. The philosophy of virtue ethics does focus on the latter, and the differences between both starting points will become clear in the further discussion.

Hitherto, it is established that people are autonomous and able to impose upon themselves (moral) laws. However, this idea of dignity still fails to explain human behaviour. The description Kant provides does not yet convey how one should behave. This is why Kant adds the categorical imperative to his theory. The categorical imperative (CI) entails that one should behave in such a way that his behaviour can become a *universal law*. This ingredient of Kant's theory explains how one should understand the exact meaning of dignity. While, on the one hand, dignity is an inherent attribute of human beings; on the other hand, it becomes relevant in relation to others. When a person behaves in line with the CI, dignity is not only individual (imposing one's own laws upon oneself) but also relational. There are multiple accounts on the relation of dignity and work that emphasize the importance of this relational aspect of dignity. For example, Bal (2017) uses this idea as one of the fundamentals of his theory on workplace dignity. Another scholar that stresses the importance of relationality is Rosen (2012), who concludes that dignity owes its relevance to its focus on duties.

¹⁴ It is important to establish the difference between intrinsic versus inherent dignity. Inherent dignity is the dignity that human beings have because of their essence, and for Kant this lies in their rationality. This is why animals do not have it according to Kant. Intrinsic dignity is broader and refers to value that can be applicable for anything with a special value, such as art, scientific inquiry and a democracy. The intrinsic value is mentioned by Kant too, as he distinguishes between economic value / dignity, or things that have a price and things that have dignity.

Following the CI, the moral action is that action which is in the best interest of all human beings and not only one individual. This further means that morality is categorical and unconditional. Moreover, it makes the Kantian philosophy a rule-based approach. Human actions are motivated by acting from *duties* that are reached by reason. People act right when they recognize an action as being right. Hence, this action is their moral obligation. The obligation of treating oneself and others with respect, thus respecting their dignity, is what is referred to as *the principle of humanity*. Importantly, the fact that the dignity of a person is unconditional and absolute has its complications and brings us back to the language of means and ends. Kateb (2011) emphasizes how it is essential to a person's dignity that one is treated as an individual human being. If they are not, their dignity is violated. When people are *merely* treated as a means to an end – or in other words, instrumentalized – they are robbed from their dignity in the Kantian notion, which is to be prevented.

The Kantian problems with the efficiency paradigm

So far it has been explained that the Kantian approach of dignity resides in treating people as ends in themselves. But as is often the case, it can be clarifying to show what happens when the opposite would occur. That is to say: the Kantian meaning of dignity can be explained even better in contrast with instrumentalist paradigms. As widely known, theories of effectiveness and efficiency have been prominent, if not leading, in business literature (Solomon, 2003). Putting efficiency first has led to higher productivities and higher outputs of necessary goods. Thereby it has solved various societal problems. However, in management research, ethical concerns are not strongly represented. This misfit between management theories and current societal problems is due to an ‘industrial heritage’ (Aguinis & Pierce, 2008; Mintzberg, Simons, & Basu, 2002). A scholar that argued that the chief problem of the current economic paradigm is neglecting the ethical and social dimensions of human dignity, is Mele (2009) (Pirson et al., 2015). A comparable argument is made by Nida-Rümelin (2009) who claims that utilitarianism, which is the branch of moral philosophy that evaluates the morality of actions on their outcomes, has unsolvable implications that were the cause for amorality in management theories. In particular he states: “Despite their liberal, universalist and rationalist origins, utilitarian principles can, in fact, be used to justify morally repugnant practices, e.g., maximizing the total sum of happiness efficiently can include the instrumentalization of one person for the sake of one or several others. Under certain conditions, even slavery can be justified by utilitarian principles” (2009, p. 10). An important elaboration on this argument is offered by Sen (1999) and Nussbaum (2003). These scholars

append that utilitarianism is to blame for the instrumentalization of humans because it would not involve ‘unalienable individual rights’ (Sen, 1999).

The Kantian problem of the absence of dignity in these fields can be explained even clearer by a famous quote of Henry Ford, who once asked: “Why is it that every time I ask for a pair of hands, they come with a brain attached?” (Hamel, 2000, in Pirson, 2017). This question demonstrates why the field of Human Resources Management (HRM), or in older vocabulary, ‘Management Science’¹⁵ is claimed to ignore the existence of inherent dignity fundamentally.¹⁶

Regarding management research, philosopher Thomas Donaldson and HRM scholar James Walsh have argued that this strand of literature is driven by ‘neoclassical theories and ideas about the firm’ (2015). In their work *Toward a Theory of Business* (2015), the authors argue that these business theories were never designed to resolve issues about social welfare – they were solely designed for the enhancement of businesses.¹⁷ The authors structure their thinking on this matter based on the ideas of Amartya Sen, who sets apart two types of (economic) value. Sen explicates: “one includes the achievement of a good society, the other narrowly concerns itself with business profits and rewards” (Sen, 1993, p. 52). Where most studies in the field of HRM are focused on the latter, Donaldson and Walsh (2015) argue in favour of more research into the former. It is the absence of this objective that lead Walsh and other thinkers to argue that there exists a significant *deficit* in management research concerning the improvement of social outcomes. Moreover, this deficit can be identified in many fields, such as operations management, information systems, strategic management, organizational behaviour and last but not least; marketing. What is more: it cannot be ignored that this attitude resonates in the very label of ‘Human Resources Management’, a title that postulates people as resources, ‘human capital’ or assets.¹⁸ It should be clear from this discussion that the contrast to Kantian thinking could not be more intense.

¹⁵ This idea can be traced back to Taylor (1914)

¹⁶ The grounds for this claim are that human beings are seen as quasi-machines. The quote by Ford illustrates what is sometimes referred to as the idea of mechanistic dehumanization. Dehumanization in a “mechanistic” form means that humans are linked to objects/artefacts and denied qualities such as emotion and individuality. This kind of mechanistic dehumanization is frequently discussed in the contexts of technology. For further reading, see Haslam, 2006; Montague and Matson, 1983.

¹⁷ Social welfare is to be interpreted at its broadest here, as societal well-being.

¹⁸ Historian Rosenthal (2014) has argued in her work *From Slavery to Scientific Management*, that modern forms of management are strongly shaped by the tradition of slavery and that the language of ‘human resources’ is the clearest example for this.

2.2.2. The dichotomy between inherent dignity and industry

The sentiment that the discussed deficit in management research is undesirable, was shared by several Kantians. Matthijs Bal writes the following on this matter when he speaks of integrating dignity with HRM scholarship: "When the HRM-literature is taken into account, one may observe that in the past, various attempts have been made to postulate theories which enable HRM to distance itself from utilitarian instrumental and individualized approaches towards a more ethical HRM (Greenwood 2002), moral HRM (Schumann 2001), standards for decent work (Bonnet et al. 2003), respect for humanity at work (Cleveland et al. 2015), and moral values (Paauwe 2004)." (Bal, 2017, p. 123). Moreover, some Kantians have shown attempts to work towards dignified businesses. Bowie (1999) states that: "the pledge to respect human dignity thus demands a business ethics characterized by an egalitarian regard for the dignity of all stakeholders of business" (Bowie, 1999, p. 184). But regardless of these efforts, an underrepresentation of ethical considerations in business management seems to have outlasted the 20th century. Management scholar Michael Jensen and economist William Meckling raised awareness about this neglect, provocatively stating that "we all have a price" (Jensen & Meckling, 1994, p. 10).

In concordance, while it may sound intuitively logical that safeguarding dignity is of importance, also when it comes to labour, there are some considerations in merging Kantian dignity with practices in business and industry. At first sight, it seems impossible not to be treated as means in an economic situation. After all, people all use each other to some extent as a means. However, the crux lies in seeing to it that in work situations, people are seen and means *and* ends in themselves. To recap: treating someone as a *means* is seeing to it that they help one to achieve a certain goal. Treating someone as an *end* entails treating them with the respect they deserve. An example can help to clarify what safeguarding dignity may look like in a work context.

Via TaskRabbit¹⁹, a platform that brings together 'Taskers'²⁰ and people who have a job to do in their household, John connects with a plumber to get his sink and pipes fixed. When the Tasker comes to John's house, he fixes the broken water pipe in John's kitchen. In this case John is using the Tasker as a means. However, when John greets the Tasker friendly, helps him if any help is needed and pays him via the platform afterwards, he is also treating the Tasker with respect. And this is the key. Treating one another respectfully is what makes using each other in

¹⁹ The official website of TaskRabbit is the following: <https://www.taskrabbit.com>.

²⁰ Most platform have their own conceptualisation for their workforces. 'Tasker' is the TaskRabbit vocabulary for gig worker.

an economic setting acceptable because then, the worker is not merely seen as means to an end, but also as end in itself. This also holds for the relation between a worker and a company. Consider a simple employer-employee relationship in which the employee adds value to the products and the company by his labour and effort. In this case, the employee is always a means for the company to create value. The question is, however, whether this is restraining one's dignity in a Kantian sense and is violating the principle of humanity. The answer is again that this is not the case when the worker is equally treated with respect. Working with dignity would be possible in this situation.

There are, however, also philosophers, such as Nietzsche, that have argued that working with dignity is not possible at all. Rosen (2012) explains that according to Nietzsche, it is improbable that 'work' and 'dignity of work' can both exist. The argumentation behind this is as follows. According to Nietzsche, human existence gets its value through 'culture', under which he understands concepts such as music and art (Rosen, 2012). Of course, by making art, people are not necessarily doing something 'productive' such as making food. This means that, in order for art-makers to be able to live and thereby make art, others have to be productive. Labour is thus a *necessary activity* for many people. Building on this idea, Nietzsche argues that there is no such thing as dignity of labour (Rosen, 2012; Bal, 2017). There is no real choice whether to work or not. People are actually enslaving themselves to their employers. Slavery thereby is essential to the idea of work. The working people allow minorities to make art, and thereby elucidate what it actually means to be human. Now, one of the essential takeaways from this Nietzschean approach, is that the relation between dignity and work can also be explained as follows: work does not necessarily have to be dignified. According to Nietzsche, this is not even a possibility. Rather, work can be a ticket towards a dignified life. There are, however, multiple responses to this idea, and compelling ideas on how dignity and work can be combined (such as the theory of Bal, 2017 or Bowie, 1998). I deem the idea that work is only a means for a dignified life objectionable, as it stops the discussion about desirable (dignified) workplace conditions and interactions right away. Moreover, to my assessment, the dignity of a work setting should be seen as a continuous scale, rather than a dichotomous category. As such, the focus will lie on *the ways in which* dignity and labour can co-exist, and *to which extent* this can be realized under certain conditions.

Turning back to the ways in which Kantian philosophy is compatible with labour settings, Norman Bowie promoted a Kantian idea of economy incorporating ideas of dignity. In *A Kantian Theory of*

Capitalism (1998) the author argues in favour of a reconceptualization of ‘capitalism’. His thinking is constructed on the discussed distinction between *dignity* and *price*. Bowie argues that dignity outflows the traditional economic perception of value (which falls under the category of price). Thereby he refers to both the protection and promotion of dignity. Moreover, he argues that an economic system that does value human dignity is actually possible and certainly would be desirable, for it would provide for (i) market-relationships that co-exist with (ii) respectful human interaction (Bowie, 1998a). From this perspective a couple of values can be derived that are of importance in the work sphere. In an article on the Kantian perception of meaningful work, Bowie (1998b) discussed the following points to be of importance: “(a) the worker must be able to freely enter into a job, (b) the worker must be able exercise her autonomy and independence, (c) the worker must be able to develop her rational capacities, (d) the worker gets a wage sufficient for physical welfare, (e) the moral development of employees is promoted on the job and lastly, (f) work should not be paternalistic in the sense of interfering with the worker's conception of how she wishes to obtain happiness” (Bowie, 1998b, p. 1, numbering added for clarity). These points are in accordance with the special role autonomy plays in the Kantian theory and, importantly, this autonomy is not only focused on the freedom to enter the workplace but stretches into decisions in the workplace as well. Bowie provides a comprehensive overview of all conditions he thinks must be met so that inherent dignity is safeguarded from a Kantian perspective. This theory also makes comprehensible what a Kantian vision on autonomy could mean for gig workers. Essential questions in this regard are whether workers are completely free to engage in the work and can exercise their autonomy while working as well, or whether one of both is limited.

Andrew Sayer works within the Kantian framework too. To quote, his goal is “emphasizing not only employee autonomy, self-reliance and resistance, but seriousness and the need for recognition and trust, and also how dignity relates to actors' vulnerability and dependence” (Sayer, 2007, p. 566). He thereby tries to broaden the often-quoted dignity perspective that was provided by Hodson (2001). Sayer does not only make a contribution to the aspects that belong to dignity but also puts focus on the elementary aspects of organizations. He explains: “I argue further that the instrumental and unequal character of organizations make relations of respect and recognition, and hence dignified employment, difficult to achieve.” (Sayer, 2007, p. 566).²¹

²¹ This makes sense in the context of platform mediated labour, where unequal power relations are contested and limited accessibility and understanding of data is identified as a key problem (Lee et al., 2015).

The core of Sayers argumentation is – not surprisingly – that the key towards dignity at work is that people should be respected as people, and not be seen (merely) as means. For sure, this is nothing new. Yet what makes the work of Sayer especially thoughtful, is that he adds to this Kantian claim that he sees the difficulty of putting this into practice, as the world of work is and will always be of an instrumental character. Thereby he directly answers to the concern that working for a boss and being part of a production process always has an instrumentalizing ingredient. However, Sayer convincingly solves this seemingly unsolvable instrumentalizing factor. At the heart of his work lies the importance of human relationships. Human relationships have the important role to acknowledge people's contributions and provide autonomy. Thereby they assure recognition of humanity and the importance of esteem, respect and dignity (Sayer, 2007).

In concrete, he asserts that the experience of dignity is built on 'words and deeds', since respectful communication recognizes another person as "someone who is more than what they do for a living, who demands respect simply as a person" (Sayer, 2007, p. 572; Hodson, 2001). This idea of Sayer can be illustrated Figure 1. Are we treating gig workers as individuals when purely algorithmically managing them, or do we see them only as a means in the platform economy?

What is more, there are numerous empirical studies that point towards violations of human dignity that arose from rude and/or disrespectful interaction (e.g., Cleaveland, 2005; Baker, 2014). This way, Sayer deals with the abstract Kantian argument against instrumentalization within the context of the industry.

Another important contemporary author on dignity of work, is Matthijs Bal (2017), who wrote his book on workplace dignity. Interesting about Bal's account, is the non-human factor in his relational overview of dignity. Central to his work is the workplace. He explains this concept as follows: "The workplace is a concept that brings together the minimal definition of organization as the coming together of at least two people with some goal-directed behaviour, and the actual place or space where people interact and communicate in order to conduct work [...] However, working purely as a means to make a living is insufficient to describe the workplace, as it is also a place which people join in order to contribute, to have social contacts, and to enact their



Figure 1: Are we treating gig workers as individuals?

craftsmanship (Sennett, 2008)" (Bal, 2017, p. 72). This means that the workplace in this account moves beyond instrumentalism in two ways. First, people find more in the workplace than just the work that is instrumental for them to survive. He thereby answers to the Nietzschean statement that work is only a ticket to a dignified life. An observation should be made here, that this idea is best understood as a potential way to move beyond instrumentalism and is rather idealistic. In practice, it depends on the work and the workplace whether it can fulfil the role Bal ascribes to it. Second, businesses hire people not only purely for instrumental purposes, such as producing and making profit. This answers to the 'means and ends' language as was discussed to be of vital importance in Kantian dignity. Bal defines his workplace dignity as follows: "the intrinsic, unalienable, worth of everything in the workplace, which should be respected, protected and promoted" (Bal, 2017, p. 74). One question mark can be placed here concerning the word 'everything'. It does not seem logical to argue that *everything* in a workplace has an intrinsic worth. A specification of differences between the worth of employees and an office chair, would be helpful here. However, the idea of the workplace as a subject for a dignity theory seems rather helpful, as it provides ways to include the various Kantian aspects into one theory. About the way dignity manifests in this workplace, Bal states the following: "As the workplace has been described earlier as the place where people come together to achieve a goal, dignity can be postulated to manifest at this very level, in the communications, interactions, and actions between people" (2017, p. 76). Concretely, Bal identifies the following four pillars for his theory.

The first 'driver' Bal argues for that would establish dignity in the workplace, is equality, for which he departs from ideas on workplace democracy. The idea of equality connects to power relations and the (re)distribution of power. Bal stresses that this redistribution of power, when focussing on workplace dignity, a fundamental dilemma for organizations. Typically, moving power from the top to the workers leads to uncertainties or risk for the company (Bal, 2017). In [Chapter 4](#) on the gig economy, it becomes clear that power imbalance is indeed a matter of importance for platform businesses too. Without moving ahead of things, in brief it can be shared that in papers such as that by Ticona et al. (2019) and a study by Rosenblat and Stark (2016) it is stressed that the information and power asymmetries are crucial for the platforms functioning. It is, in other words, central for the functioning of a platform that the knowledge is unequally shared. However, Bal argues that (equal) power distribution is crucial for workplace dignity, and as such, the transparency and knowledge sharing of platform is seen as important for the question of worker dignity in platform work.

Positive contribution is the second driver Bal identifies. His theory asks that people act in accordance with their duties when they enter the workplace, meaning that they should try to contribute to the workplace and by doing so find a way to make sense of their role their and their labour. This also connects to the idea of finding meaning in work. According to Bal, this may even mean that people start to engage in self-reflection for achieving this. Furthermore, Bal argues that dignity is given meaning by deliberative factors such as debates and opening the conversation. This entails that making workers positively contribute should be promoted as this may inform these debates and this also works the other way around.

Then there is the central value of openness. This value allows workers to be aware of the decisions that are taken and connects to the ideas of transparency (which in the context of this AM centred thesis links to algorithmic transparency) and accountability (see [section 3.3](#)). More importantly, this also means that people should have a say in decision making processes. However, transparency is not only important for decision making processes. The functioning of a business should also be transparent when it comes to “financial affairs, future planning, and other aspects of business” (Bal, 2017). The bottom line is that people should be informed and involved in the decisions that are made.

The last value is responsibility. The theory of workplace dignity asks that workers and managers have responsibilities, and in particular “the responsibility to strive towards respecting, protecting, and promoting workplace dignity” (Bal, 2017, p. 121). While responsibility is something that can mainly be ascribed to individuals, Bal states that there is plenty of research that shows how individualized perceptions of responsibility can lead in workplaces to create shared ‘climates’ or ‘cultures’. The relevant question here is what the role and responsibility of the platform, and the platforms stakeholders in working towards dignified gig work.

2.2.3. Empirical research into inherent dignity (violations)

The just discussed theories are specific ways in which the Kantian idea of dignity can be safeguarded in the work setting. There are, however, more theories that have focused on inherent dignity and violations thereof in the workplace, of which some scholars also have conducted empirical research. This section discusses some of those theories, thereby sketching an idea of how inherent dignity might be violated in practice and how this is researched in the past.

Looking at research into dignity, the field of philosophy is not the only branch of literature to study.²² Bolton (2007) reminds us that dignity has been a crucial matter of research in the social sciences. A strong emphasis on it is found in the field of sociology. A central concern in social science studies has been the possible *devaluation* of dignity and accordingly, many sociologists have studied the sources of such a devaluation. A well-known underpinning of such interests is the work of Karl Marx, who famously focused on factors of alienation (Bal, 2017). Another philosopher involved with this matter is Durkheim, who contemplated *normlessness* due to *efficiency* (Marks, 1974, in Bal, 2017) and Weber was concerned about bureaucratic rationality (Bal, 2017; Hodson, 2001).

This direct link between the dignity of people and their work or workplace, has been growing attention ever since the Marxian critique found its grounds. Where Kant is one of the most prominent dignity philosophers, Marx is probably the most prominent author about violations of specific *worker* dignity due to his famous critique on capitalistic exploitation. When it comes to discussions on the violation of dignity, Marx should be seen as the contestant of such violations *par excellence*. In short, Marx argued that (contemporary) capitalistic systems inherently lead to exploitation and thus violations of the dignity of workers. A very typical neo-Marxist way of assessing dignity is to see to what extent it is absent or violated. Research on labour processes and work situations has a long history of explaining how the organization of work influences the position and the *well-being* of the workers or violate them (Hodson, 2001). Over the years, some contributions have been made to our understanding of worker well-being and other foci within the literature on work.

For instance, Blauner (1964) added to the debate that worker control (in specific manifestations like bureaucratic rules and certain technologies) can produce experiences of *powerlessness* and/or *meaninglessness* among the workers. These experiences can be found to various degrees. Furthermore, Blauner stressed that the worker control techniques can lead to *isolation* (from production goals) and/or *self-estrangement* (which is the idea that work becomes a means of survival rather than an end in itself, like the Nietzschean philosophy) (Blauner, 1964). The author (not unlike Marxist philosophy) concluded that technologies such as the assembly-line and power-machines produced high rates of alienation under workers. The importance of the relation between the worker and his product resonates through these kinds of examples. However,

²² Certainly when looking for empirical studies into dignity, the field of philosophy is not the first place one should turn to.

Blauner (1964) added to this that continuous-process technologies could have better impacts, as they could restore skill and freedom to manual work.²³

More recent is the work of Randy Hodson (2001). The often quoted and used *Dignity at Work* (Hodson, 2001) is a vital contribution to the discussion in terms of sociological understandings of relationships between the organization and experience of work. Hodson draws from the already mentioned Marxist, Durkheimian and Weberian perspectives on work and well-being at work. The sociologist claims (among other things) that work arrangements vary in (a) the degree of allowing workers to express themselves, (b) to experience senses of self-worth and (c) self-respect on the jobs (Hodson, 2001). This last ingredient can be understood in terms of various experiences degrees of autonomy, creativity, effort and pride (idem). Furthermore, Hodson explains how studies have shown that exposure to various modes of control – which can, for example, be (direct) supervision or task segmentation – influence opportunities to establish dignity in the workplace (Hodson, 2001). This touches on the ideas shared by Blauner that alienation from the production and the powerlessness of being monitored can have negative implications. As being monitored is a vital characteristic of working under AM, this observation is important to keep in mind. It also means that professional and other high-status or high expertise jobs allow for more self-directed and expressive work experience (Gecas & Seff, 1990; Hodson, 1996). In the field of psychology, it were – among many others – authors such as Rogers (1995) and Fromm (2001) who paid attention to the significance of dignity (Dierksmeier et al., 2015). These scholars took on the notion of human dignity to detach themselves from behaviourist²⁴ models of human action that were most common in psychological theories.

Concretely, Hodson (2001) identified four primary factors for indignity, being: overwork, mismanagement and abuse, incursions on autonomy, and paradoxes of participation (Hodson, 2001; Lucas et al., 2013). But there are more specific factors for indignity to be found in existing empirical research. Lucas (2017) stresses that: “Other studies have identified more specific contributors to indignity: verbal abuse and humiliation (Khademi et al., 2012; Stuesse, 2010), stigma attached to certain kinds of work (Chiappetta-Swanson, 2005) and workplaces (Otis, 2008), being compelled to demonstrate servility to others (Kensbok et al., 2014), implementation of coercive controls that dehumanize workers and erode pride (Crowley, 2012), and callousness and a lack of care while communicating about job loss (Gunn, 2011)” (Lucas, 2017, pp. 624-625).

²³ In fact, this idea already resonates the understanding that technologies can both restrain and enable dignity in the work setting – which is the main argument of this chapter.

²⁴ Behaviourism is a school based on the idea that all behaviours are acquired through conditioning.

What can already be said about the list Kristin Lucas (2017) provides, is that all these empirical investigations into dignity focus on violations and threats to dignity. According to Lucas, such empirical studies into dignity in a positive way (focusing on what contributes to dignity) do not exist. This observation captures one of the gaps that this research might fill, as the purpose is to investigate both contributors and restraints to a gig workers dignity.

2.3. Contingent dignity

The second perspective on dignity that is important for management, is contingent dignity. At its' most basic, this is the idea that principally, dignity can be earned or reached by one's behaviour or status. This means that, where inherent dignity is internal and connected to human nature, contingent dignity is external, and is to be obtained. This section explains the perspective of contingent dignity. Just as was done in the section on inherent dignity, this happens by zooming in on a particular philosophical school. In this case, that is the school of virtue ethics.

Before doing so, it is good to start with a common conception of contingent dignity. In contrast to the unconditional, universal notion of inherent dignity, the second principal notion of human dignity rests on earned respect. More precisely, this other idea of dignity can be gained by the development of individual abilities (Hodson, 2001; Solomon, 2003; Sen, 2001; 2002). Greek philosophers promoted the idea that dignity can be secured through suitable education, which was believed to lead to good or 'moral' behaviour. To earn or reach dignity, people should develop themselves as a person, to improve their judgements and gain wisdom. In other words: this development comes down to the formation of character (Dierksmeier, 2011). Plato (428-348BCE) argued that for citizens of a polis, it was crucial to form their own opinions (Dierksmeier, 2011).²⁵ Moreover, he reasoned that people should be able to argue for their standpoints and ground them on their values (idem).

Even more emphasis on the relation between dignity and self-development is argued for by Aristotle. Mainly, Aristotle promoted the idea that dignity is gained by those that live up to the ideal of excellence (Nussbaum, 1998).²⁶ Just like the Greek use of the word nobility, this understanding of dignity is of an aristocratic kind. There are more exclusive²⁷ ideas on dignity than just the

²⁵ A polis (plural: poleis) was the typical structure of a community in ancient Greece.

²⁶ This form of excellence is referred to with 'arete' and will be elaborated upon in [section 2.3.1](#).

²⁷ In this context, exclusive means that not every person has dignity. In other words: some groups do, while others do not have dignity.

aristocratic one. According to some, one's dignity can also be earned by one's actions, an idea that is referred to as *comportment* dignity, which is different from aristocracy because it considers one's behaviour regardless of their rank or status. Often this idea is illustrated with examples of prisons in which people are contested by severe conditions, but through their actions and behaviour preserve their dignity. This means that misfortune or a low status does not rule out the opportunity of dignity and being dignified. Another exclusive idea of dignity is based on meritocracy. Such an attitude differs from aristocracy because it does not link dignity with a certain position but follows Aristotle in saying that dignity is the product of behaviour.

Most notable about this reading is that human dignity is theoretically free to all, but practically only reached by a few. Dierksmeier writes: "While the Stoics broadened the scope of the term [dignity] to include *principally* everyone, they agreed with Plato and Aristotle regarding its narrow *factual* application: dignity must be earned. Whereas dignity, as a potential, was considered to lie within human beings' nature as such, its actualization was thought to depend on *contingent* subjective achievements" (Dierksmeier, 2011, p. 36, italics added).

When looking at the prominent moral theories, a focus on contingent dignity is to be found in virtue ethics as a result of the Aristotelian tradition. There is a couple of reasons to engage in virtue ethics to explore the ways in which algorithmic management might influence a gig worker's dignity. Most generally speaking, just as Kantian thinking, it offers solutions to the efficiency-driven paradigm in management theories that was caused by instrumentalist and utilitarian paradigms (as was discussed in [section 2.2](#)). However, it does so from a different starting point. As this moral philosophy finds its grounds in *character* rather than *rules*, it allows to think about the promotion of dignity in a *positive* way rather than exclusively focusing on dignity violations. To put this differently, it might broaden one's vision when exploring AM in the gig economy, as it can elucidate which practices can or should be promoted to realize gig work with dignity, rather than seeing to it that dignity is not violated in this platform mediated labour. There is also a more concrete reason to use virtue ethics as a lens. Much attention in the literature on AM is given to the far-reaching ways that platforms apply of steering and incentivising their worker's behaviours. As such, the question is whether these steering mechanisms are in line with the idea that the workers must be able to develop their own character and capabilities – as virtue ethics promotes.

This section has two constituents. As a start, the basic ideas behind virtue ethics are discussed as promoted by Aristotle. Secondly, this section explains why virtue ethics enables us to see the

deficit in instrumentalist thinking and discusses the commensurability of the ideas of virtue ethics and labour.

2.3.1. The fundamentals of virtue ethics

For an extended period, the perspective of virtue ethics was underrepresented in the field of business ethics. It was Robert Solomon who advocated an Aristotelean account of virtue ethics as a proper way to look at businesses. Robert Solomon argues that business must not only be built on ideas of profit but on virtue too. A crucial question that led to this reappreciation of virtue ethics is: *how do people in business²⁸ decide what is right and wrong?* (Solomon, 2003). Doing the ‘right thing’ is not necessarily the thing that leads to the most profit. So, the true question for businesses and managers might be whether it is possible to combine living virtuously and making as much profit as possible.

To understand what a virtue ethics perspective on labour (or business) situations might mean, we must discuss three components of virtue ethics, of which the first is *pursuing the internal good*. According to Aristotle, human life is always lived towards a certain goal, a *telos*. Characteristic for human beings to strive for, is ‘the good’. The first question that comes to mind then, logically is: what is the good? Keeping the eye on the ball, let us consider this question in the context of doing business, labour and making profit. It can immediately be said that making profit is not the good that Aristotle argued for. Profit, honour and comfort were all excluded from the candidacy. Aristotle writes on this matter: “living into service of money is something far-fetched” (*Nichomachean Ethics*, EN: I, 1096a). As a consequence, the *telos* of human beings cannot be to make profit or get wealthy. Turning back to the means-and-ends distinction as introduced in the chapter on Kantian philosophy, making money seems to be the means to achieve something different. Wealth could be a possible means to reach the actual good. An example of what could be a ‘final end’ for a virtue ethicist, is for a worker to perform their work well. Or for a manager to manage their workforces well. Through repeated and continuous training, an agent tries to improve himself and excel at his chosen practice. This training and road towards excellence in a certain practice, is what is meant by *pursuing the internal good* (of the practice the agent is engaged in).

By striving for internal goods, one finds himself in a life dedicated to growth and development. In the *Nichomachean Ethics*, Aristotle writes that by living such a life, people can reach the ultimate

²⁸ Purposefully not referred to as ‘businessmen’, for people in business can be both men and women.

goal for mankind²⁹: *eudaimonia* (Nichomachean Ethics, EN: I, 1098a). Eudaimonia is a form of happiness that should be interpreted as an ‘activity’ of the human soul that is in accordance with virtue. Aristotle speaks of happiness as “a kind of reasonable participation, which is following the perfect virtue and lasts throughout one’s lifetime” (idem). Virtues are, in other words, the attitudes that help people reach eudaimonia. By (a) developing and (b) putting to practice various virtues, people can develop themselves. By developing and strengthening one’s character traits, and putting them to use, people can do the right thing. This idea is most crucial for the translation of virtue ethics to business ethics – and is one of the most fundamental differences with the Kantian approach, which is based on the idea of universal rules.

The second component of virtue ethics is *gaining practical wisdom*. On the word of Aristotle, the most important virtue is *phronesis*. It is used to honour someone who knows his duties, and knows what justice is. This term also refers to people who are able to make the right judgements in particular situations and it thereby refers to ‘intellectual virtue’. Without this intellectual virtue, no personal virtue can be carried out. To put this differently: in order to be able to pursue the internal good of the social practices one is engaged in, and to do what is right in morally laden situations, one needs practical wisdom. Practical wisdom is the ability to recognize and evaluate situations and act adequately, by exercising their virtue. There is thus a co-dependence between *practical reason*, or prudence (*phronesis*) on the one hand, and *moral virtues* on the other hand.

The idea that men are not born with the answers on how to act morally right, is best illustrated by the following segment from the *Nichomachean Ethics*: “men become builders by building and lyre-players by playing the lyre; so too we become just by doing just acts, temperate by doing temperate acts, brave by doing brave acts” (EN: I, 1103a33-1103b3). As any other virtue, practical wisdom is to be obtained in practice, by training. This segment also nicely shows why virtue ethics is based on the idea of contingent dignity: this kind of dignity can be *reached* by development and action but is not inherent. Dignity, from a virtue ethics perspective, can thus be promoted when AM techniques allow or stimulate workers to become a virtuous agent and strive towards their internal good.

However, to become a virtuous agent, practical wisdom alone is not enough. One ingredient is missing here, which is the third and last component of virtue ethics: *voluntary action*. Gal, Stein and Jensen (2020) stress that according to Aristotle, three conditions should be met in order to

²⁹ And thus, the thing where all human action is directed towards.

call an act virtuous. First of all, the action should be of a virtuous kind, which means that it shows – for example – bravery or honesty. But doing something that can be seen as brave, does not necessarily mean that the act was virtuous. It could be the case that someone was brave because he was forced to do something, or to avoid a punishment. If and only if an agent performed this brave act for the right reason, which means that it cannot be out of ignorance or to avoid punishments, we can say the agent has acted virtuously. The ‘right reason’ means, in other words, that the agent recognizes that acting brave is the right thing to do under the circumstances and chooses for this action for their own sake. The last condition that Gal et al. (2020) list, is that the agent must know what he or she is doing. The agent must be aware of the fact he is acting brave or being honest. This also means that when an agent would be asked why they were brave in a certain situation, or why they were being honest, they should be able to express why they acted in this way and honestly answer why they chose to do so. These three conditions together are what is meant by the idea that the virtuous agent should be acting voluntarily.

2.3.2. Virtue ethics and work

What happens when we apply these ideas to a business situation? As explained, virtue ethics is centred around good character and good judgement results from this. The Aristotelean approach for business ethics then entails that it is individual virtue that counts.³⁰ People who are virtuous (of good character) will act virtuously at work and at home. Virtues are character dispositions and manifest themselves in action and a good corporate- and social policy will follow from this. Moreover, it is in line with the idea that people count more than profit (Solomon, 2003). Which is, importantly, something that the Aristotelian and Kantian perspective have in common. Figure 2 explains the common conception of good profit, which shows how making profit and acting virtuously should be combined.

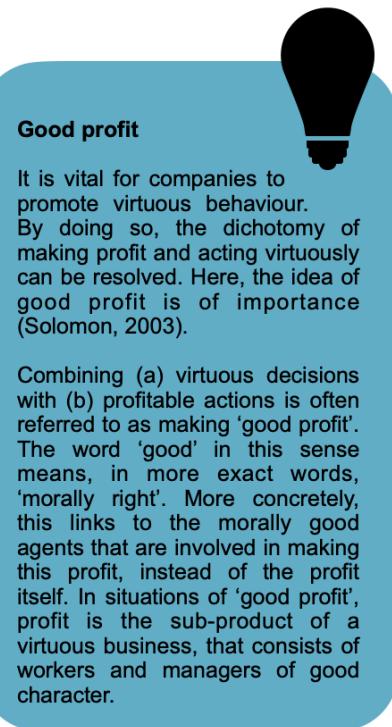


Figure 2: Text box Good profit

³⁰ They are therefore different to utilitarian ethics, which emphasize the consequences of actions – specifically their capacity to maximize good – in determining their ethical nature, and to deontological ethics, which propose that ethical behaviors are those which conform with a correct moral rule or principle (Hursthouse, 1999).

This all renders the question who or what is to promote acting virtuous in a labour-situation. It seems as if the character development of the worker is most crucial as a good corporate policy follows from it (Solomon, 2003). However, it is not difficult to think about conditions in the workplace that could influence the virtue ethics components in a negative way. For example: a lack of information for workers might hinder the possibility to act virtuously. This means that the company and its key-players, such as the managers, play an important role here too.

As this study focuses on the ways in which algorithmic management can enable or restrain worker dignity in the platform economy, the following question is how certain AM applications and conditions can affect dignity in a virtue ethics perspective. In other words: how can AM techniques influence the three mentioned components that are mentioned for becoming a virtuous agent. To introduce a way of thinking about this question, the 2020 paper of Gal, Stein and Jensen can be of help. In the following chapter the specifics of algorithmic management are explained, but it might be helpful to illustrate what kind of AM aspects these scholars believe to have an influence on the virtue ethics components. In short, they have investigated the effects of algorithmic opacity (which can be seen as the earlier discussed transparency), datafication and nudging to see whether these techniques are promoting virtuous behaviour, or whether the techniques have a positive effect for the company alone. They conclude that all three “limit people's ability to cultivate their virtue and flourish” (Gal et al., 2020, p. 1).

An answer to the instrumentalist paradigm?

What is not yet specifically discussed, is how virtue ethics may help to reflect on instrumentalist paradigms. It was discussed in [section 2.2](#), that among economics- and HRM scholars, the notion of dignity is seen as underrepresented. When thinking about the virtue ethics perspective, key of the problem is that management theories are rarely focused on ‘human flourishing’. Neither are they focused on enabling worker development. This last point is what Amartya Sen refers to as the development of capabilities (Sen, 1993; 2001; 2002). To explain what capabilities are in Sen's account, the notion of functionings is of importance too. Functionings are states of ‘being and doing’, such as ‘being financially independent’. These states should be distinguished from the actions that are needed to reach them. For example, engaging in gig work and thereby earning and owning money is different than the state of being financially independent from family and loans that results from these efforts. Capabilities (or a set thereof) are sets of a combination of functionings that an agent finds valuable. Which combination of functionings an agent finds valuable, is up to the agent himself. This means that different combinations of functionings exist, and thereby different kinds of life (Sen, 1993).

What Sen offers here is a comprehensive way to make a virtue ethics perspective more practical and succeeds in keeping it agent centred. But taking one step back, a fundamental question that should be answered here, is whether virtue ethics and business would actually go together. Just as with the Kantian principle, a common concern could be that virtuous behaviour and business practices are incommensurable. This concern is sometimes referred to as ‘the separation thesis’. The main claim of this argument is that business is and, more importantly, should be separated from other areas of life. And the argumentation goes as follows. People who are engaging in business should be driven by self-interest. As a result, there is no place for virtuous behaviour in business, because virtue is incompatible with self-interest. This could be problematic for the argument made here – as it would show that no matter what the managerial techniques are, those engaging in making profit will not do so in true virtue.

A major response to this concern is that even if workers would act only to achieve the highest value, that would not immediately mean that they are acting merely based on self-interest. In line with the earlier mentioned argument that Solomon (2003) makes about the purpose of business, economic exchanges can be interpreted with a variety of motives too. Admittedly, each economic exchange holds the idea that each party wants to get the best deal. After all, it is not voluntary work or giving a gift for which only social reward is expected. Solomon underlines the same point when he states: “Each party is seeking, in general, the best deal that he or she can get. Business exchange is not gift exchange (nor is it a coerced exchange), but there is nothing essentially egoistic in the trade itself. Therefore, the claim that commerce is necessarily self-interested does not hold true, and it cannot, therefore, be used as an objection to a theory of virtue in business ethics.” (Solomon, 2003). The author thereby makes a compelling argument for the possibility of virtuously acting in business.

To conclude, promoting virtuous behaviour is the key condition for ‘making people count more than profit’. The company’s purposes ideally include development and well-being for the workers. This idea is of high importance and is described in the remainder of this thesis as ‘growth for both’. In accordance with the main aspects identified for virtue ethics, the business structure and management tactics should not only benefit the company but should benefit the workers too. When considering algorithmic management, the question is thus whether these techniques to steer the gig workers are benefiting the workers too or are whether they create an advantage for the companies alone. If the former is the case, the follow-up question is whether and how the AM techniques help the workers.

2.4. Conclusion

This chapter was aimed on answering the following question: ***What is (worker) dignity, and what are the existing conceptualizations of dignity and work?*** Working towards an answer to this question, the first section presented the background of the term ‘dignity’. It was discussed that there are many perspectives on dignity identified throughout history, but at its most basic, dignity is referring to the quality of being worthy or honourable. Three perspectives on dignity were of particular importance throughout time: intrinsic dignity, inherent dignity and contingent dignity. It was argued that for management theory, or working with dignity, all three perspectives are of importance. Intrinsic dignity is broader and more fundamental: it is the framework within which thinking about value other than economic and efficiency becomes possible.

Adding to this, two branches of moral philosophy were presented as an angle to look at the dignity of gig workers. First, the Kantian branch was discussed, in which the focus lies on inherent dignity. Following Kantian thinking, the most important for worker dignity is that workers should not be treated as merely means but should be seen and ends in themselves. Additionally, respect and respectful interactions are important so safeguard this. Ultimate examples of people being robbed of their dignity are poor working conditions, little autonomy, mismanagement and exploitation. Contemporary ideas that were based on this idea were discussed, but other theories that have focused on dignity violations have been presented too. For example, there are plenty of studies in the social sciences that were based on the theory of dignity devaluation of Marx. It became clear that inherent dignity (of workers) is most pivotal when their vulnerabilities (which can be physical, mental or socio-economic) are in need of protection.

Complementary, it is shown how contingent dignity is most pressing when workers are in need of a promotion of their self-esteem, self-respect and development. Virtue ethics prescribes three main abilities for a dignified life. Gal, Jensen and Stein (2020) sum up these three main components as follows. The first is ‘pursuing internal goods’, which according to these authors is “both pursuing internal goods manifests in achieving excellence of products or outcomes and pursuing internal goods manifests in a sustained effort to improve one's competencies, thereby pushing the boundaries of one's field of practice.” (Gal et al., 2020, p. 3). This idea is also discussed as being able to develop one's own capabilities. The second component is ‘acquiring practical wisdom’, which is described as: “Practical wisdom manifests in doing the right thing within uncertain circumstances that require courage, honesty, or restraint and practical wisdom manifests in reflecting on whether a given course of action is worthy of and conducive to a good

life, both for the agent and the community.” (idem). The last component is ‘acting voluntarily’, which the authors explain as follows: “acting voluntarily manifests in doing something for the right reason and not out of compulsion or for ulterior reasons. Acting voluntarily manifests in agents’ ability to provide a coherent explanation for their actions and why they seemed appropriate within certain circumstances.” (idem). Focused on a business setting, these abilities are all *promoting* a worker’s dignity, when present and can be promoted by various conditions, such as aspects of AM (Gal, Jensen & Stein, 2020).

Including all section of this chapter, the following elements are believed to belong to a preliminary conceptualisation of worker dignity, which can be summarized into the following table.

Table 1: Overview dignity and dignity aspects

	Inherent dignity	Contingent dignity
Means that work is dignified when	One’s inherent dignity is not violated by the AM practices and the work context	One’s contingent dignity is stimulated by the AM practices and the work context
What is the origin?	The universal human essence	Character
What does this perspective demand of management?	Protection	Promotion
How can that theoretically be done?	Protection of human rights and autonomy	Development of capabilities and character
The common ground for both perspectives	People count more than profit	
What are the identified dignity aspects?	Autonomy Respectful interactions Transparency Equality Contributions	Pursuing the internal good Acquiring practical wisdom Acting voluntarily

When thinking about the question of *how one can understand dignity in the context of work*, there is no singular answer. Many people have written about the connection between dignity and work, and the conclusions drawn vary intensely. In this thesis it is argued that a theory of worker dignity is most convincing when it takes into account both of the considered perspectives. As a start, we can say that worker dignity can be safeguarded when one’s inherent dignity is not violated. This can be done by means of rights and (universal) rules. However, the argument made here is that we should move beyond this, and leave room for the development of workers in accordance with their individuality and character. An example may clarify this preliminary conceptualisation. When we consider the extensive data-gathering by platforms about workers, one could argue that this

data is not gathered without consent or is not misused to steer workers (and thereby affect their autonomy). The rights and rules to prevent actions such as misuse, are to protect dignity and make sure inherent dignity is not restrained. However, we can also take the virtue ethics perspective, and argue that the data must not only be used in a rightful way, but should be available, understandable and usable for the workers and their personal development too. Making data open and transparent would then be a way to promote dignity in a contingent way.

The idea that '*people count more than profit*' might be the most obvious overlap in both dignity perspectives, but it should be added as a last remark that there are more commonalities to be found between the two. For example, ideas of virtue resonate in Kantian thinking, and of course, virtue ethicist write about dignity violations too. I am aware of these overlaps, but the objective of this study is not to discuss in detail the differences and commonalities between the two perspectives and their foci, but to integrate them both into interview questions that will be discussed with gig workers: the one perspective does not have to exclude the other.

3. Algorithmic management

The previous chapter provided the philosophical notion through which AM and platform work are analysed. This second chapter is dedicated to building an understanding of the technological practice under scrutiny. It answers the question: ***What is algorithmic management, and what are the various conditions under which it is used?***

3.1. An algorithm as a boss

*How to cope when your boss is an algorithm?*³¹ Questions like these are raised more and more often in popular media and on social media platforms. Working with, or under the supervision of algorithms has gained much attention. There are many articles on the impacts of algorithmic systems used for management in the workplace and the phenomenon has been getting attention from many different fields and perspectives. As Lee et al. stress in their paper on working with machines: "Software algorithms are changing how people work in an ever-growing number of fields." (2015, p. 1603). Indeed, the use of software algorithms is emerging in various sectors (Mateescu & Nguyen, 2019). It must be noted that not all managerial practices done or supported by algorithmic systems fall under the umbrella of AM as it is referred to in this thesis.³² Moreover, the extent to which AM is applied varies strongly (Leicht-Deobald et al., 2019). Yet, what all of these stories do have in common regardless the field, is that they are about those people who are steered and managed by technical systems that are increasingly built into work environments such as websites and apps, driven by algorithms (Mateescu & Nguyen, 2019; Rosenblat & Stark, 2016). It is this phenomenon that is discussed in this chapter: algorithmic management.

Algorithmic management is an umbrella term that, specified to its application in labour practices, includes a diverse set of technological *tools* and techniques that are used to manage workforces (de Stefano, 2017). More specifically, AM allows to structure the conditions of work and *remotely* manage workforces. Outstandingly, it can do so in an automated way. In the aforementioned article by Lee et al. (2015), AM is captured from a very technical perspective: "We call software algorithms that assume managerial functions and surrounding institutional devices that support

³¹ Examples of articles posing this question is the following two: <https://www.business-school.ed.ac.uk/about/news/how-to-cope-when-your-boss-is-an-algorithm> & <https://www.ft.com/content/88fdc58e-754f-11e6-b60a-de4532d5ea35>.

³² One may ask for example whether public management done by (or with support of) algorithms is AM too. While it is defendable, this conceptualization of AM focusses on HRM decisions only, not on decision making by algorithms outside of this scope.

algorithms in practice *algorithmic management*" (Lee et al., 2015, p. 1603).³³ In an article on the relation between AM and app-work, Duggan and peers define AM as follows: "a system of control where self-learning algorithms are given the responsibility for making and executing decisions affecting labour, thereby limiting human involvement and oversight of the labour process." (Duggan et al., 2019, p. 199). Here, the power relation that comes with the AM systems is strongly emphasised. This is a very comprehensive definition, consisting of many aspects that are of importance. However, as becomes apparent in the further discussion of AM, there are some differences to be found between the applications of management by algorithms. One should distinguish, for example, those applications of AM that are *supporting* human decision making, and those AM systems that have *replaced* human decision making. Having noted these existing differences, the term AM is adopted in this thesis to point to all situations in which any form of managerial task concerning workforces is performed by algorithms. Indeed, this understanding leaves quite a margin of manoeuvre. [Section 3.2.](#) elaborates on the broad spectrum of AM applications; here it becomes clear that specifying AM should be done from case to case.

Another remark that must be made is that 'algorithmic management' is not the only term out there to describe these kinds of management structures. In an article about algorithms and social ordering, Eyert et al. (2018) stress that under the umbrella of AM fall many different practices, and the phenomenon is referred to with various definitions. They state: "Increasingly, automatic information and decision-making systems are used to structure social processes, replace human judgement and generate order, as captured in the concepts of "algorithmic management" (Lee et al. 2015), "algorithmic regulation" (Yeung 2017a), "algocracy" (Aneesh 2009) and "governance by algorithms" (Just & Latzer 2017)." (Eyert et al., 2018, p. 48).³⁴ Moore and Joyce (2018) add to this list the label of Digitalized Management Methods (DMMs) and Gal et al. (2020) talk about People Analytics (PA) to point to AI and technological tools to manage workers.

3.1.1. The rise of algorithmic management

Before diving into the specific applications of AM, at least important to understand is that these AM systems are building on more traditional management structures that rely on human

³³ These authors focus on the technology that allows these practices, whereas other people focus on the managerial perspective or the power relations at play.

³⁴ These terms can be found in connection to labour practices, but other aspects of our society too. Algocracy, for example, is sometimes connected to the use of algorithms in politics and democracy. This term captures the idea that algorithms take over specific decision-making processes in the political sphere. In the summer of 2018, the Telegraph UK published an article with the heading "Robots could take over as 'algocracy' threatens to replace democracy", see <https://www.telegraph.co.uk/business/2018/07/11/robots-could-take-algocracy-threatens-replace-democracy/>

supervisors (Mateescu & Nguyen, 2019). Those management structures are not particularly new.³⁵ It is the algorithmic technology that enables the scaling of these already existing operations by (among other essential factors) efficiently coordinating the activities of large, disaggregated groups of workers, and by using data to optimise the chances of desired outcomes like lower labour costs (Leicht-Deobald et al., 2019). This combination of HRM tactics and algorithmic systems makes AM a novel phenomenon. The driving forces behind these managerial scaling practices are *the collection of big data and the surveillance of workers* to, eventually, enable automated or semi-automated decision-making (Duggan et al., 2019). The datafication of increasingly many organisational processes has made it possible to use algorithms for collecting and analysing data (Lycett 2013 in, Leicht-Deobald et al., 2019). Technology thus seems to be the game-changer: algorithms allow for practices that were not possible before.

To put this in more concrete terms, monitoring workers is what enables companies to steer them in novel and controversial ways. However, big scale surveillance of workers – which is a substantial part of the AM techniques – is most certainly not a new phenomenon. Using (monitoring) technology to manage workforces has been done for many centuries. Surveillance and business organisations are generally understood to go hand in hand since the late 19th century (Beniger, 2009). The first significant development of putting the idea of strong surveillance into practice in the workplace was the introduction of electronic performance monitoring (which is for instance the tracking of work times and GPS locations) (Leicht-Deobald et al., 2019). It is essential to mention that these tracking methods were widespread.³⁶ However, according to Leicht-Deobald (2019) and his peers, the current technologies differ from the older – more traditional – monitoring practices in three ways.

Firstly, older monitoring practices were focused on tracking performance data. The current technologies – in addition to performance data – also monitor *contextual* (not task-related) behaviour (Leicht-Deobald et al., 2019). This includes, for example, employee engagement and overall health-related data (*idem*). The inclusion of tracking employee behaviour outside of the workplace is a significant development (and this is extensively happening in the gig economy). Adding to this, Leicht-Deobald (2019) and his colleagues stress that current algorithm-based HR decision-making tools are now, with an increasing capacity, able to exploit *novel* types of data.

³⁵ Human Resource Management is the discipline dedicated to this.

³⁶ A survey of the American Management Association (AMA) revealed in the year 2007 that a third of the companies employed people to read the outgoing email of employees (AMA, 2007). Moreover, two-thirds monitored the internet activity of employees, and half-tracked content, keystrokes, and time spent of their employees on computers (Rosenblat, Kneese, & Boyd, 2014). The presence of surveillance in these cases might be evident.

One could think of internet browser histories, (personal) electronic calendars, and location data from wearable devices, like (smart)watches, fitness wristbands and mobile phones (Leicht-Deobald et al., 2019, p. 379). Particularly interesting about this, is the shift of monitoring towards – what is traditionally thought of as – data from the personal domain. Second, the authors write that current algorithm-based HR decision-making tools can integrate data from a range of sources that were kept separate before. This can be referred to as data aggregation (Leicht-Deobald et al., 2019).³⁷ Different sources of data are being grouped together to create consolidated profiles of employee data. So, where the first difference from more traditional monitoring systems lies in the swing towards innovative (and perhaps more private) sets of data, the second difference lies in the fact that all these sets of data can be combined. The third and last difference Leicht-Deobald and peers provide us with, has to do with the analysing capacity of the monitoring systems. The authors write that "the technical capability of algorithms to meaningfully analyse data has largely expanded" (Leicht-Deobald et al., 2019, p. 379).

The fact that the phenomenon of AM is so overwhelming lies in the combination of all three mentioned differences compared to the traditional workplace monitoring and decision-making methods. The scope, scale and efficiency of these managerial systems have increased tremendously, and this has several consequences – among which consequences for the dignity of the workers subject to it. Here one of the first novelties of AM comes to the surface that makes existing conceptualisations of worker dignity difficult to directly apply to the gig work situation. This will become even clearer in the discussion of gig work conditions in [section 4.3.](#), as it is explained that AM and gig work have the effect of making the line between the work sphere and the private domain blurry. Consequently, theories focused on workplace dignity, or dignity *at work*, cannot be used directly to investigate the dignity of gig workers. For example, because of the data gathering outside of the workplace, the existing privacy laws that take care of workplace monitoring data protection (Floridi, 2016), are not sufficiently protecting the users. In contrast to more traditional workplaces and management techniques, these managerial techniques and ways of tracking workers are applied outside of the workplace too. Information that was traditionally kept outside of the work-setting is taken into account. Thinking about dignity in gig work demands awareness and adjustment to the fact that AM techniques reside in the private domain too. An important insight for the existing body of literature on dignity and work is thus that there is now demand for a dignity theory, or a theory of good management that is labour oriented but stretches into the private domain too. A gig worker does not necessarily work between two gigs but being online is

³⁷ Key players like Oracle and IBM are a big part of this practice.

enough to be directly managed. Even offline, or at home, managerial techniques are deployed on the workers as follows from the work of Leicht-Deobald and peers (2019). As Figure 3 shows, a gig worker oftentimes has a hybrid workplace, which consists in this example of a car, the city-centre and his mobile application. A theory of dignity that is focused on the place or environment where gig workers are steered, monitored and interact would then be focused on the whole platform environment, including both offline and online places and both social and technological aspects.

Figure 3: The hybrid workplace of a gig worker



3.2. The algorithmic systems

Turning back to the discussion of AM, the take-home message of the first section is that algorithmic management is the act of monitoring and steering workforces, by collecting data, conducting (soft-) surveillance and performing management tasks, with the use of technology (Lee et al., 2015; Leicht-Deobald et al., 2019; Duggan et al., 2019; Ticona et al., 2016).

Crucial for understanding the working of AM, is gaining insights on how the algorithmic systems are functioning.³⁸ Quite often, an algorithmic system is explained by its input and output. An explanation of a system's throughput is not often added to this view. What happens between the input and the output of the system is instead not rarely referred to as a *black box* (Burrell, 2016). In an attempt to open up this black box, in this thesis, the *throughput* of such systems is added and used to explain the type of decision-making power and functioning that is ascribed to the system.

In this study, the notion of *algorithm* refers to computational formulas that are able to autonomously make decisions. They can do so based on (statistical) models and/or decision, and importantly they operate without human intervention (Duggan et al., 2019).³⁹ Figure 4 provides more information on the basic working of algorithms.



What exactly is an Algorithm?

In its most general reading, an algorithm is a sequence of instructions that, in a very specific and unambiguous manner, operates to solve a class of problems, or perform a certain task. To put it even more simply, algorithms are step by step methods for solving problems. This definition may sound a lot like the instructions one finds in a do-it-yourself guide or a recipe for baking a cake: and this is not entirely mistaken. Algorithms, in the non-technological reading, are applied and used in our daily lives all the time. It is, however, the technological algorithm that has gained attention over the past years, especially because this kind of algorithm - that is used by computers - is in terms of efficiency and its ability to solve problems easily and quickly, exceeding a lot of human capabilities.

There are various kinds of problems for which one can use algorithms and as such, there is at the time of writing a tremendous amount of specific algorithms developed and being used. Most common is the use of algorithms for data processing, calculations and other computer related projects and mathematical operations. Computer algorithms are those algorithms that are part of a computer program and are implemented in what is called a formal programming language. A computer program inevitably consists of multiple algorithms and even so, can itself be considered to be a complex algorithm. Algorithms are attractive as they are highly effective methods for producing results. All algorithms start with an initial state with (optional) initial input. They precede with describing a computation. Such a computation involves a finite number of (importantly, well-defined) successive states. This results in eventual output and finally, the ending state. The instructions the algorithm follows that makes it go from state to state, can be described as rules. To explain this with an example, an algorithm can contain the rule that specifies that if the input consists of the letter Y, then it should display the text "Do you accept this?"

Figure 4: Text box algorithms

³⁸ This is good to know because it helps to see how dignity can be promoted or safeguarded in practice too.

³⁹ This understanding of an algorithm articulates the current use of the notion in popular media and incorporates recent developments in decision-making capabilities of algorithms from artificial intelligence and machine learning (Algorithmic programmer, personal communication, June 2020).

3.2.1. Input, throughput and output

The most logical starting point for this explanatory section is the input of AM systems. The input of an algorithmic system consists of two ingredients: data and parameters (Burrell, 2016; Algorithmic programmer, personal communication, June 2020). Initially, the programmer (which can also be referred to as the designer of the system) should have an idea of which tasks the system should perform and what problem it should solve. The first thing that is necessary then in order to start building the program, is data. As was discussed in the previous section, this can be both historical data and real time monitoring data (Leicht-Deobald et al., 2019). Besides, as data is the foremost input of these systems, it is now clear why datafication is such a booster for the development of AM (Mai, 2016, in Gal, Jensen & Stein, 2020). In practice it then depends on the company and the approach of the programmer which datasets and parameters are available and which are used (Personal communication, June 2020).

When considering the applications of algorithms, at first sight it may seem that algorithms are morally neutral. The neutrality of algorithms is often used as an argument to use algorithms over human subjective decision making. Take, for example, an algorithm that calculates the sum of two numbers. It might be difficult to find moral controversies for the use of such a tool, and its working and output might seem objective. However, many people have pointed towards the fact that this idea of objectivity is mistaken. It is even seen as mythology (Leicht-Deobald et al., 2019, p. 381).

In the creation and use of algorithms, many choices have to be made. For one, it is possible to design multiple algorithms for the same tasks. Here lies a design freedom for the programmer (Personal communication, June 2020). An interviewed programmer shares that: "I am definitely able to put my own label on such a system, there is a lot of freedom to really think it through in my own way and with my own logic." (Personal communication, June 2020).

Furthermore, the tasks the algorithms are built for, are very often not formally defined, but rather defined using terms and notions including a certain degree of vagueness, ambiguity and/or assumptions (Burrell, 2016). To clarify this with another example, consider an algorithm that is supposed to identify spam in an email-folder, as is illustrated in Figure 5. The algorithm gets the tasks to identify "spam" in an email feed, for which the concept of spam has to be specified. However, there are various ways to do so.

Figure 5: The functioning of a simple algorithmic system

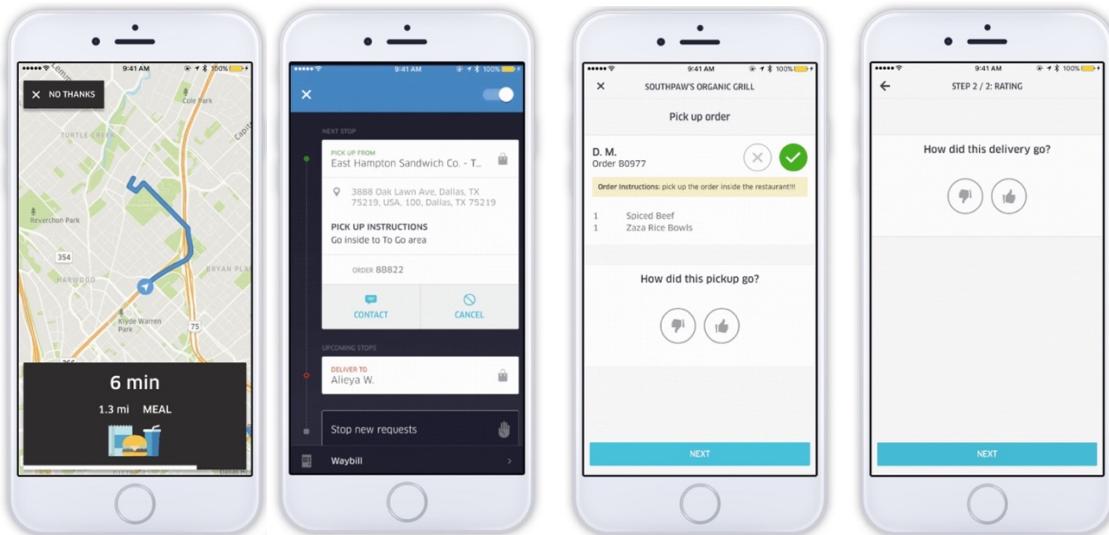


Another critical factor that makes the working of an algorithm complex is the set of additional requirements that are either explicitly or implicitly stated, which the algorithm must satisfy that could affect the design (Personal communication, June 2020). These can also be referred to as parameters. Thinking about food delivery services, an algorithm for navigation can be a good example. Consider an algorithmic system that is designed to calculate the shortest distance or the fastest route between the restaurant and the customer. The main tasks of the algorithm might be to calculate the shortest route, but some requirements may be added to the task that waterways and unpaved roads should be excluded from the options, to ensure the deliverer that travels by bike or scooter is able to make it to his destination. Such complex problems are efficiently dealt with by well-designed systems share both the algorithmic programmer that was interviewed and the middle manager working with his system (Personal communication, June 2020). The middle manager, who is in charge of planning tasks and routes for multiple workforces, shares that the algorithm makes his work a lot more efficient and his work experience is more positive (Personal communication, June 2020). However, there are various ways in which the solutions the system can provide to the problem, are given.

What the output of a system looks like differs very strongly and depends foremost on the task that the algorithm is supposed to do. It can be a set of *instructions* for a middle manager or team leader that assigns the tasks to a group of workers (Personal communication, June 2020). In such cases, the algorithmic system is used as a (supportive) tool by a middle manager. In the case of the interviewed programmer and manager, the output of the system is a number of routes that the workers can drive to re-distribute the rental scooters over the city. It is the middle manager who assigns the teams the various routes. Moreover, in the interview, the middle manager explains that, whenever he sees a route or action that is not logical or probably would not work, he is in charge, not the algorithm (Personal communication, June 2020). The output should therefore be seen as a *recommendation*, which the middle manager can work with. The workers do not see or interact with this output, which comes in the form of a excel sheet, directly at any moment.

Another option is that the output is directly presented to the workers. This kind of output and interaction with the system is the contested use of AM that is central in this thesis. An exemplary case of this is the food delivery service of Uber, UberEATS. Using the UberEATS application it is shown here how the output is presented to their delivery workforce in the mobile application. As can be seen in the following screenshots (Figure 6), the output and the worker-user-interface have many facets. Outputs of the algorithmic system concerning routes, tasks, making reports, getting bonuses and other outputs are all directly presented in the application:

Figure 6: The output of the AM system for UberEATS workers



40

What also differs in the case where the algorithm is a supportive tool for the middle manager and cases such as UberEATS (with fully applied AM), is the tasks the algorithmic system is supposed to take over from human managers. For the former, as was shared by the interviewees, the system is only used for routing and some other minor tasks.⁴¹ Bigger platforms, like Uber, typically outsource more – if not all – tasks to their algorithmic systems (Mateescu & Nguyen, 2019). The question then remains: which tasks are outsourced and what power does the system have? These questions are discussed in the following section. In the remainder of their paper, Leicht-Deobald et al. (2019) provide a rather clear distinction between the classifications in management practices led by algorithms that these enhanced analytical capacities have led to. This brings us to the

⁴⁰ The screenshots are retrieved from UberEATS application trial on the official website.

⁴¹ The tasks in this case are more of an operational character than purely HRM such as hiring, firing, performance tracking. It does not include ways of performance tracking; it is only routing and task division.

second ingredient of AM: the managerial tasks that the algorithmic systems are performing, which can be explained in terms of the throughput.

3.3. Opening up the black box

The part between the input and the output of a system, is referred to here as the throughput. The interviewed programmer explains that quite often, people working with the algorithm and those who are steered by the algorithm, do not know how the system is functioning (Personal communication, June 2020). It is to them, a black box (Cheng & Hackett, 2019; Burrell, 2016). An article by the Dutch news website NOS shared that Dutch Uber drivers demanded transparency of Ubers algorithms, as they have little to no knowledge about the functioning of the system that is steering them (NOS, 2020). This statement is endorsed by the middle manager who is in charge of the workforces. He articulated that he only understands the way the system operates in general terms (Personal communication, June 2020). This means that, as the programmer proclaimed, she is the only one who truly understands the working of the system (*idem*).

Many companies that work with AM deploy algorithmic systems for more than one task and in more than one way.⁴² Another point is that the workers steered by the system do not often have knowledge on which tasks are outsourced to an HR decision making system and which are not, or to which extent they are. Normally one would say that this is (and remains) a black box for these users. However, by opening up this black box, one can see what is happening between the input of data and chosen parameters, and the excel sheet that provides a manager with the fastest routes, or the application that informs a worker on an upcoming bonus. It is for this reason that I call this the *throughput*, for it gives insights in the normally opaque and misunderstood part of these systems.

One sidenote should be placed here, which is the fact that the input of the system is often black boxed too. This means that the kind of data that is used and the reasons for which data is used, are part of the discussion as well. This point can be referred to with the notion of *algorithmic transparency* (Binns, 2017; Mittelstadt et al., 2016). This is a principle holding that the purpose of the algorithm, its input and its operations must be transparent to its stakeholders, in such a way that it is knowledgeable and understandable. This principle is the bridged between transparency as an aspect of dignity and the practices of AM. In this thesis, the stakeholders that are most

⁴² It was already discussed that these systems use aggregates of data and deploy multiple tasks if not all tasks.

important are the workers and users that are interacting with the algorithmic system (or even being steering by it). In the literature, many advocates of this principle can be found. The European Commission has a High-Level Expert Group on AI that has labelled this notion as an *essential* moral principle. The crux is that those affected by an algorithmic system should have the *ability* to understand why the algorithm makes certain decisions. This means that, at the very least, gig workers should be able to get explanations about the decisions that are made by the system. Or in other words: when asked for, the black box should be opened up for them.

There are at least two dignity aspects this touches on. First, the idea that workers should be *informed* and *involved* that is necessary to safeguard inherent dignity. Second, the idea that people should be able to decide how they want to do their work and base this idea on *practical wisdom*. It seems that for both dignity perspectives, an understanding of the algorithm is most necessary – and the understanding workers have of the HR decision making systems should thus be taken up in the further (explorative) research. Connected to this notion is the notion of *algorithmic accountability*. This principle holds that organisations that are using algorithmic systems should take their responsibility for the decisions made by those algorithms and act in accordance (Binns, 2017; Mittelstadt et al., 2016). It should be clear that platforms using AM to steer their workers are candidates for obeying these rules too.

3.3.1. The managerial tasks and analytic power

As mentioned in the introduction of this chapter, the term AM can be used to describe more or less sophisticated systems. Equally, it has its differences in application for it can be *combined* with existing practices or instead used to *replace* them. This section elaborates on those differences.

The notion of AM was introduced in the context of online labour platforms, by academics Lee et al. (2018), who used the term to describe the ways in which Uber and Lyft's software algorithms allow 'workers' to be "assigned, optimised, and evaluated through algorithms and tracked data" (*idem*). One of the critical elements of platforms is outsourcing. A platform works as an online marketplace that mediates between groups of users. Mediating in this sense is done *only* by means of technology. Within this context, it is quite easy to see how the more traditional manager does not have a place within platform infrastructures. Cheng and Foley (2019) explain how the tasks traditionally performed by middle managers, increasingly are relocated to economy-platforms and algorithm-based decisions, and they clarify that this relocation is happening fast,

however gradually (*idem*). Consequently, when talking about AM, sometimes we are dealing with combined human-based- and algorithm-based decision making, and we have to deal with cases of little, or no human intervention (Cheng & Foley, 2019). Either way, features of AM expand the scope, scale, and purpose of surveillance and data collection within our industries and labour. The further discussion will be dedicated to the implications this transformation may have. Besides the differing degree of digitisation of management tasks in the new economy, there are various ways in which AM is put to use – depending on the economic domain they are deployed in. For example, the AM that Cheng and Foley discussed in the case of Airbnb, involves peer-to-peer matching strategies in the 'sharing' economy, which is slightly different from the AM systems that, for example, Uber uses (Cheng & Foley, 2019). This thesis focuses on AM of workers. In other words: people who earn money by using the services of platforms. This is why most examples of the managerial tasks are drawn from platform companies such as Uber, Deliveroo, Clickworker, Thuisbezorgd.nl, among others.

Zooming in on the platform economy expressly, various characteristics can be identified that the AM systems that are applied there typically include (Mateescu & Nguyen, 2019). First there is automated and semi-automated decision making. This includes general managerial practices, under which, for example, the instances of recruiting and hiring people for which more and more often algorithms are used to make decisions or to screen 'pools' of candidates and resumes (Mateescu & Nguyen, 2019), but it also includes task division and setting price rates.

A second important aspect is data collection and (soft-) surveillance of workers. This is most often referred to as continuous soft surveillance. It means that data is collected about worker behaviour on the job. In ride-hailing apps such as Uber, data collection of driver behaviour is used for automates performance records. In other words: the workers are continuously and heavily monitored and this data is then used to evaluate workers. Moreover, the data is used to steer the workers or influence their behaviour by means of bonuses and notifications (*idem*).

This touches on the third aspect, which is using nudges, rewards and penalties to incentivise worker behaviours (Mateescu & Nguyen, 2019). There are a lot of ways in which platforms try to 'incentivize' workers to a certain behaviour (*idem*). For example, Mateescu & Nguyen (2019) explain that ride-hailing companies try to steer workers to certain areas of try to make them work during certain hours. It is stressed by Gal et al. (2020) that these nudges are compromising the agents ability to act virtuously, because it hinders acting voluntarily. The most contested example of these methods is 'surge pricing' which is done by Uber. Surge pricing means that drivers for

Uber, but also riders for UberEATS receive messages with higher pay rates at certain times and places. These notifications are discussed in literature as nudges (Eyert et al., 2018).⁴³ This method specially reveals how companies such as Uber try to manage the independent workers into one workforce that works towards a better position of the platform. The question here, however, is whether the intended growth is advantageous for the workers too. Thinking back on the discussion of virtue ethics, a company (and in this case a platform) should not be aiming for growth of the platform alone: the flourishing of the workers should be included too. And thinking about Kantian ethics, the question is whether tricking people into certain behaviours is in accordance with their autonomy or whether this instrumentalizes them. All in all, it seems like these conditions could affect the workers dignity and thereby these topics should be explored among gig workers in the empirical part of this research.

The fourth aspect was already pointed to in the previous aspects: (real-time) responsiveness to data that informs management decisions (*idem*). There are a couple of things to be said about this aspect. To begin with, the gathering of real time data is used to make decisions about deactivating accounts or penalize workers on their behaviour. Moreover, this happens by creating an information asymmetry between the platform and the workers. Crucial to the platform business model is that the platform has more knowledge of data than the workers, a point that was already said to have impacts on the dignity aspect ‘equality’.

The last point concerns, for example, the ‘five-star rating system’ of Uber. This is the idea of performance evaluations that are transformed into a (rating) system (Mateescu & Nguyen, 2019). In many platform applications, the workers get rated in the form of stars or numbers. This can be done by the platform, or by the consumers. Either way, this aspect seems to be the most evident example of ‘de-humanization via datafication’ of workers as was discussed in the section on Kantian dignity, but it is extensively discussed in the virtue ethics analysis of Gal et al. (2020) too.

3.3.2. The analytic power

In addition to the managerial tasks that can be outsourced, there is another kind of condition of importance here. It was explained how an algorithmic system is put together and which managerial tasks can be performed *with the help* of these systems. However, there are also tasks that can be outsourced *entirely* to these systems. This section explains the degree to which AM is used in combination with the HRM tasks. It varies per platform which of these tasks are done

⁴³ Nudges are originally referred to by Thaler & Sunstein (2008). For nudges in a digital environment, see Yeung, (2017) and Eyert et al. (2018)

by middle managers and which are done by algorithmic systems. Where some companies have only outsourced tasks such as routing or task division, other companies have outsourced bigger managerial tasks or tasks that can have stronger implications. There are examples of companies using algorithms for CV selection, hiring, and deciding in which workers are most likely to stay at the firm (Leicht-Deobald et al., 2019). It can already be expressed that the various tasks that are performed by the algorithmic systems instead of (human) middle managers, are believed to be important conditions for the dignity of gig workers. In this light, the earlier mentioned work of Leicht-Deobald et al. (2019) provides a rather useful classification of AM applications that will be adopted in the remainder of this thesis.

The first category of algorithms are descriptive algorithms. These algorithms "aim at analysing what happened in the past and how this influences the present." (Leicht-Deobald et al., 2019, p. 380). The example that is given in the article for this kind of algorithm, is the distribution of, or the association between, variables. The information and data necessary for this application is relatively simple. Descriptive algorithms can function for example on standard deviations and percent changes. A balanced scorecard is a typical example for using this kind of algorithm in HR. A balanced scorecard is an often-used management performance tracking tool by which absences, turnover, supervisor performance feedback and other strategically essential factors can be indicated. Algorithm-based HR decision-making can automate this tool with the use of descriptive algorithms, using the aggregate of various available data sources.

Shifting towards more concrete applications of these algorithms, it becomes clear that such algorithm-based HR decision-making applications also allow companies to track their employees' '*informal* social networks' (Leicht-Deobald et al., 2019). It was already stressed that the gathering of data has expanded to private (traditionally non-work related) domains. Think here of the use of email, Bluetooth, video, or GPS data. Descriptive algorithms can help HR managers (or more generally companies) to track employees in terms of their motivation and they can measure their performance. They can also be of help for building profiles of job candidates. Or for identifying critical topics that have the danger of creating anxiety and/or excitement on the work floor (idem).

The second category is that of predictive algorithms. These kinds of algorithms are used for forecasting. In other words, they are used to give predictions about results, that are based on specific observations. These observations can be from the past, but also real-time. The focus here lies on prediction of future outcomes and determining the likelihood of such outcomes (or

situations) to occur. Examples of the applications of these algorithms are advanced regression techniques, but also machine-learning algorithms and data mining approaches. The output of these algorithms is mainly a number or a score that represents the probability of the relevant events to happen. Thinking about a thesis such as this one, the first example that comes to mind is the fraud-prediction application that will run this work. Predictive algorithms can provide suggestions of suspicious segments in the text. It is then up to the professors to investigate in detail whether these sentences and segments are indeed not in line with the academic rules of paraphrasing and referencing. Within the context of labour, predictive analytics help HR managers to recruit employees. Key here is that the algorithm is ideally only used as support for the HR manager in the recruitment process. However, Leicht-Deobald et al. (2019) stress that the *perceived objectivity* and unbiased nature of the algorithm, oftentimes makes it difficult for HR managers to act on their own assessment and choose the applicant that was suggested by the predictive algorithm. So again, the bias and lack of neutrality of the algorithms should be taken seriously and is not always in people's minds.

The last and third category is that of prescriptive algorithms. These algorithms depict the best option out of several possible scenarios. This means that go a step further than forecasting algorithms, as they also suggest courses of action. Oftentimes, the output is an overview of benefits and consequences from the alternative scenarios (Davenport, 2013; Souza, 2014). This means that the algorithm can show what the consequences of certain decisions are. Prescriptive algorithms are based on methods similar to those of predictive algorithms. However, to be able to make the just mentioned suggestions, simulations and scenario-based techniques are added to these methods.

The example mentioned by Leicht-Deobald and his peers (2019) to explain this further, is about the logistic firm UPS.⁴⁴ Firms like this use AI to shorten the routes for parcel delivery, thereby saving time and fuel (Konrad, 2013, in Leicht-Deobald et al., 2019). UPS does so in order to track and trace their delivery services, UPS equipped its parcel delivery cars with sensors, which means that the firm registers the brakes and turns of the car, but also the car users' personal driving habits.⁴⁵ The data about the car and the user are then matched, *in real time*, with other data about traffic jams or weather forecasting. These combinations of data help UPS to make driving routes

⁴⁴ This example is similar to the by Mateescu and Nguyen (2019) discussed Amazon Flex program, but many other examples of such AM applications exist today.

⁴⁵ Interestingly both the technological and human behavior is tracked.

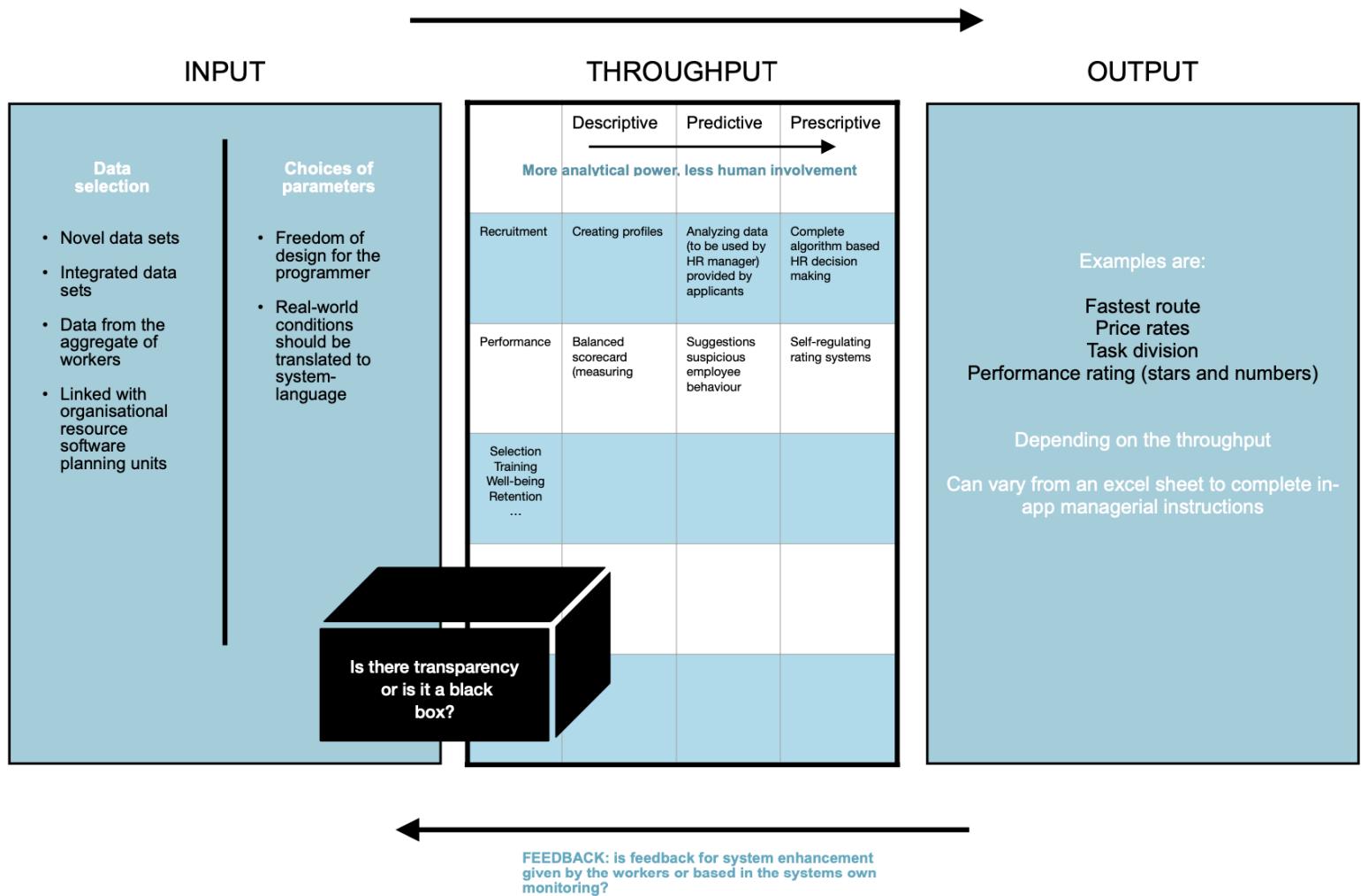
more efficient. In other words, to support and improve their business and infrastructure. However, it is also used as part of the key performance indicators that are in turn used to rate their drivers' performance (Zax, 2013). This dual use of matched data sets is significant in the platform economy (Leicht-Deobald et al., 2019). What is also of importance to notice, is that the degree of human involvement lowers as the algorithmic system gets more analytic power. The app work situations that are the case study for this thesis, often involve the kind of system that functions without human intervention.

Feedback mechanisms

The last important aspect is then how the system is enhanced, updated, or in other words: how feedback is used for the systems functioning. There are a couple of ways in which this can happen. It was discussed that real-time monitoring can provide real-time decisions in platform systems. There are, in other words, systems that are self-learning and are made to enhance itself. However, the kind of feedback that is especially important for the workers, is the feedback they can provide for the system. As could be seen in Figure 6, the images from the UberEATS application (especially the third and the fourth), some apps have feedback mechanisms in-app. UberEATS workers provide feedback on various deliveries in the application. There is oftentimes, for platform businesses such as Uber and UberEATS, no human supervisor for further notices of feedback. For the case with a middle manager, this works completely different (Personal communication, June 2020). Here, feedback about the routes and how the tasks were experienced by the workers is given to the (human) middle manager on a daily basis. He himself can change the input of the system according to the valuable feedback, or, in more difficult cases, can ask the programmer or data scientist to change the systems working. In any case, to enhance the system, there must be feedback from the accuracy or efficiency of the output incorporated in the input of the system.

When we combine all the aspects of algorithmic management, the following scheme emerges.⁴⁶

Figure 7: A schematic overview of algorithmic management



⁴⁶ Here, the top arrow shows how the system works from input to output, and the lower arrow reflects the fact that feedback on the output is supposed to enhance the system, by either differing the datasets or parameters, or changing options in the throughput. It is to be explored whether the feedback of the workers is taken into account. Is this actively given feedback by the workers? Or is this feedback gathered by monitoring?

3.4. Conclusion

The sub-question of this chapter is the following one: ***What is algorithmic management, and what are the various conditions under which it is used?***

The answer to the first part of this question is as follows. Algorithmic management is the act of monitoring and steering workforces, by collecting data, conducting (soft-) surveillance and performing management tasks, with the use of technology. There were various characteristics discussed of these systems. The main characteristics that can be identified of AM systems typically include (Mateescu & Nguyen, 2019):

- **Automated decision-making or semi-automated decision making**
- **Data collection and (soft-) surveillance of workers**
- **Using nudges, rewards and penalties to incentivise worker behaviours**
- **(Real-time) Responsiveness to data that informs management decisions**
- **Performance evaluations are transformed into (rating) systems**

It was discussed that which tasks are done by an algorithmically driven system, varies per platform. Whatever the *degree* might be to which these systems are used today, and the *specific ways* in which they are put to use, there are various factors that have contributed to the increasing use of algorithms in the discussed areas. For one, algorithmic systems become more and more affordable, and notably, convenient to use for employers (Mateescu & Nguyen, 2019; Reillier & Reillier, 2017). In general, the systems are adopted because of their labour- and cost-cutting possibilities. This could be because it creates the possibility to *classify the workers as independent contractors*, thereby decreasing labour-costs. Another way is to reduce the amount of work hours of employees through *automated scheduling and planning*. The latter oftentimes mentioned advantages measure is transferring worker evaluations onto rating systems. Broadening the scope of managerial practices is thus of importance too.

Then, the second objective of this chapter is to explain under which conditions these techniques are applied. Here are a couple of points are important to explain these conditions. When it comes to the throughput of the system, there are two types of conditions of importance. First there are the managerial tasks performed by the system. These include hiring, firing, penalizing, price surging and other managerial tasks and aspects. Second, the decisive character or analytical power of the algorithm is of great importance. It matters to a great extent whether managers base

their decisions on descriptions, predictions, or whether the algorithm makes the decision for them and in the last scenario: there is no manager at all. For the output there are two conditions discussed. The output can be a set of predictions or tools presented to the platform or manager that he or she can use, or the output is directly presented to the workers. Logically, the output and its' presentation are strongly influenced by the throughput. Then there are some general conditions that concern the systems use as a whole. Initially, it seems to be relevant how workers (if at all) can give feedback to the system. If there is a possibility to do so, it seems to matter how and when they can do this and about which kind of concerns. Furthermore, the transparency of the system is critical. According to both the literature and personal interviews, the workers oftentimes do not know if a system is used, for what a system is used or how it works. They do not know why the output is as it is.

Together the conditions that are expected to be relevant for worker dignity are the following:

- **The decision-making power of the system**
- **Presence/absence of human interaction**
- **Transparency of the system**
- **Possible feedback mechanisms**

The following chapter is focusing on the conditions under which platform work is done. As such it allows to zoom in on these kinds of specific manifestations of algorithmic management and how this is embedded in the platform economy.

4. The gig economy: how it works

This last theoretical chapter answers the sub-question: ***What does platform/gig work entail and under which conditions is it performed?*** Answering this question and discussing the platform economy and gig work, provides the societal context in which algorithmic management implications are discussed in this thesis. Hereby, the third and last component of the framework is provided. This chapter has the following structure. After a short overview of what the idea of the platform economy captures, it is explained what gig work entails and what its main characteristics are. Building on this, the specific ways in which platform work is performed are discussed, with special attention for the aspects that are connected to AM and various studies that have identified alarming and undesirable implications of gig work for the workers.

4.1. The brave new economy

More and more often we are being told we live in an age of massive transformation. Digitalisation, an omnipresent trend in our societies, set the stage for many emerging technologies affecting many – if not all – aspects of our lives. The economic sphere and the labour market are not left untouched by this phenomenon. Over recent years, attention is paid to the emergence of the digital economy, which very bluntly stated includes those businesses that have a business model relying on the internet, information- and communication technology (ICT) and, outstandingly, data (Srnicek, 2017). One of the more critical novelties within the digital economy is the platform business model. Platform businesses have penetrated all sorts of economically vital industries including communications, payments, advertising-supported media, operating systems, financial exchanges and a variety of internet-based businesses such as Google and online marketplaces. The emergence of the phenomenon is so overwhelming, some even theorise we have entered the era of the *platform economy*. When it comes to this remarkable new economic manifestation, we have witnessed many terms all trying to capture the same idea: the next industrial revolution, the app economy, the on-demand economy, the gig economy, the sharing economy, the attention economy and the surveillance economy, that are mentioned alongside new promising buzzwords such as innovation, flexibility and the convenience of on-demand services (Lieman, 2018; Reillier & Reillier, 2017; Srnicek, 2017).

Of course, it should be added that all of these definitions for the novel platform-driven economy refer to specific characteristics. The 'sharing economy' points at the development that more and

more often, people share their properties, borrow each other's cars or rent their houses (Lieman, 2018). The notion 'app economy' focuses on the fact that many economic transactions are done with the use of telephone applications and the idea that for everything we need, an app exists (*idem*). While these notions also touch upon the specific idea that is under scrutiny in this thesis – platform mediated labour – there is one specific definition that captures this idea: the gig economy. This definition points us directly to the fundamentals of the investigated work practices: the fact that workers earn money by doing a *gig*, which is a slang word for a job that only lasts a specified period of time.⁴⁷

The scale and scope

A report by SEO Amsterdam Economics (2018), *The rise and growth of the gig economy in the Netherlands*, can help to understand the scale and scope of the Dutch situation.⁴⁸ The authors of this report adopted the following definition of the gig economy: "[...] Involving workers who perform physical labour in the Netherlands and who obtain assignments primarily through online platforms." (SEO, 2018). This definition of gig work is narrow when opposed to the definition handled by, for example, Duggan et al. (2019). Duggan et al. describe gig work as an umbrella term that includes three types of platform mediated labour. First they include under gig work 'capital platform work' which they explain as follows: "*Capital platform work* exists where individuals use a digital platform to sell goods peer-to-peer or to lease assets (e.g., Airbnb and Etsy) (Duggan et al., 2019, p. 117). Second they distinguish 'crowd work', which refers to 'remote' gig work such as click work for Amazon Turk or Clickworker.com. Third they include 'app work', which are the form of physical labour done by using applications such as Uber and UberEATS. Taking these distinctions, the SEO report reflects on app-work alone.

Based on this definition, at the time of publication, the gig economy in the Netherlands existed out of 0.4 percent of the working population, which stands for around 34.000 workers (SEO, 2018, p. 1). Approximately 12.000 of those workers were involved in food-delivery services – which is a substantial percentage – but there are more types of gig work discussed in the report. The authors talk about passenger transport (taxi drivers), taking pictures, food delivery, domestic work (cleaning), and the category 'other' in which they included craftsmen and hospitality workers (SEO,

⁴⁷ In Dutch referred to as: de klussenmaatschappij, de klik- en klusmaatschappij.

⁴⁸ It must be noted that the report was published in March 2018 and that the rapid growth of gig work and the underlying platform companies, makes it very likely the numbers are higher today. However, the report provides exciting and well-researched insights on the platform-phenomenon in the Dutch economy specifically, and as such gives crucial information for this thesis that points towards essential facts.

2018). There are many novelties to this kind of work and over recent years, practices in this new digital economy have led to vigorous debates about the conditions under which gig workers do their work. The following section dives into the various characteristics and conditions that can be found in the platform economy.

4.2. Characteristics of gig work

There are two main characteristics that will be discussed here. First, there is the discussion about how one should *conceptualize* the relation between the worker and the platform. Second there is the discussion about the implications that the relation between the workers and the platform *de facto* has.

On Augustus 11, 2020 an article was published by BBC News that Uber is supposed to employ their drivers (BBC News, 2020).⁴⁹ This article addresses the first characteristic of platform work that has to be discussed. It is also the point that is contested most often about the phenomenon of gig work: the employment status of gig workers. Although there are numerous ways to understand the meaning of employment, the ways in which platform organisations define and treat their 'workers' has been controversial. One often mentioned critique is the fact that these platforms distance themselves from any legal responsibility towards their 'workers', by stating that they are a business in the domain of 'technology' rather than a large player in the domain of labour (Lieman, 2018). So how does this work?

As a start, there are variations to be found in the way platforms explain the worker-platform relation. As each platform has its own functioning and services, many platforms have adopted unique categorisations for worker classification. For example, these workers are described as "taskers" by TaskRabbit and "riders" by Deliveroo (Duggan et al., 2019). As mentioned, this strategy of categorising workers in such a way that no legal responsibility has to be admitted, has not gone unnoticed. There are, at the time of writing, several attempts of platform workers, who, with the support of labour-unions, are "challenging the legal status of their employment" (McGaughey, 2018, in Duggan et al., 2019). The mentioned article about the demanded employment of Uber drivers is one of the first results of these cases.

⁴⁹ <https://www.bbc.com/news/technology-53737398>

As the platform economy has gained much attention it is not surprising that many conceptualisations of "work" and "employment" have been offered by legal and organisational scholars to try and capture this idea. Over the years, these conceptualisations have been used to reflect the changing nature of working relationships and attempts have been done to capture the emergence of nonstandard forms of employment over time as well. As Duggan et al. (2019) state: "Most point to the idea of an employee being "controlled" by the organisation, "in the service" of an "employer," "directing" the work process in exchange for remuneration, or the reciprocal obligations involved" (Duggan et al., 2019, p. 116).⁵⁰ However, the platforms most typically claim that the worker is *only matched* with other users of the platform, and directing or steering workers is not among the platforms agenda-points (e.g. Zwick, 2018; Stefano, 2017).

Following this idea that the platform in principle only links the various users, there is no employment status that can describe the worker-platform relation. Most typically, working arrangements are classified as "employment" or "contract work." (Duggan et al. 2019, p. 116). This means, according to the authors, that when categorizing gig work within the literature on employment classifications "leads to a hybrid idea of various contingent work types" (idem).

Practically there are three types of work arrangements in the Dutch gig economy (SEO, 2018):

- The independent contractor
- An employment contract between platform and worker
- Workers falling under the Regulation Care and Support at Home

The independent contractor is the one that is most discussed in academic and public debate (e.g. Cherry & Aloisi, 2017). Workers for UberEATS and drivers for Uber, for example, have been given this label because comparing their status to other work arrangements gives the most similarities with independent contracting (SEO, 2018; Duggan et al., 2019). Another arrangement that it has similarities to, is subcontracting with three or more parties (SEO, 2018). This means that the contractor is a private entrepreneur. These similarities both are due to the fact that this work is project-based and not bound by a contracted employeeship. This aspect is referred to as casual work (de Stefano, 2017) and contingent work (Zwick, 2018), among other notions. Gig work also has some similarities to temporary employment, an arrangement that has two central manifestations. First, there is temporary agency work. In such a case, work is distributed via third-

⁵⁰ Sources that are listed by Duggan et al., (2019) are the following: Cappelli & Keller, 2013; Connelly & Gallagher, 2004

party labour intermediators (SEO, 2018). Another form of temporary employment is the 0-hour contract, which means that the worker is employed but working hours are not guaranteed (idem). In both manifestations the worker is an employee. These two forms of work have in common that they are not full-time, nor open-ended (SEO, 2018). In the literature on gig work, this observation is often referred to as *precarious work*. This precariousness is what makes the temporary employments situations comparable to gig work: it is tough to predict future earnings, there are no commitments to long-term relationships, oftentimes there are highly flexible working hours, the work is project based and the payments are based on pieces, rather than fixed wages (Duggan et al., 2019). The precariousness of gig work is often stressed as an important consideration for the well-being of workers and the desirability of the platform work in general. The question now is: what are the pros and cons of this structure according to the literature? What are the implications of the just described relationship between worker and platform?

Let us start with the positive sides of platform mediated labour settings. It was already stressed that in the introduction that gig work has been growing in popularity. There are several positive sides underlined for this casual kind of work. The first aspect of gig work that is often offered as an advantage is the flexibility that the work offers (Rosenblat & Stark, 2016). This flexibility manifests itself in mainly two ways. Primarily, a lot of gig workers do not have strict working hours. This means that they can decide for themselves when to work and for how long. On top of this, gig workers often have the freedom to decide where to work. Then there is another sense of freedom that is important about gig work, which is the fact that there is no (human) boss in a traditional way, or no direct supervision. This means that gig workers often have the freedom to work without having the responsibility to feedback to a supervisor. The promised freedoms are one of the main attraction points identified for gig work (Rosenblat & Stark, 2016).

Another attractive point is the low entry barrier (SEO, 2018). Many platforms are very easy to enter. Not only is it easy to install the application, the application procedure oftentimes only involves a low-key set of steps. This means that for many gigs, no specific diploma's or means are required. Wood et al. (2018) touch on this matter too when they stress that online labour platforms often provide the opportunity to do work that would otherwise not have been an option, experience things that otherwise not would have been experienced. And they found that this idea of novelty caused many people to experience the work as enriching (Wood et al., 2018). It can be argued that in such a position, gig work might strengthen the autonomy of a worker in the sense that it provides him the means to make a living. It can also be said that, by offering another road

for making money (among other reasons to engage in gig work) engaging in the practice of gig work can be enriching in a virtue ethics perspective too.

However, it must be noted that this does not mean that a whole new world of work has emerged (de Stefano, 2017). Rather, people that are often most vulnerable are employed by the platforms (Zwick, 2018). An example of this, is the number of refugees that are engaged in gig work (Zwick, 2018; Personal communication, June 2020). This has two sides: on the one hand it can be argued that gig work is enriching for these people as they would have been jobless otherwise. On the other hand, the fact that these people cannot find other jobs makes them extra vulnerable for exploitation. This point is also stressed by van Doorn (2017). In his article that elaborates on the inequalities of platform labour. This means that while autonomy and being able to pursue internal goods seem to increase for some, dependence on gig work and inequality come along too.

There are, however, also negative sides to be found among the conducted studies on gig work. The idea of gig work is different from traditional work settings in many ways. Valerio de Stefano (2017) labels gig work as ‘technology-enabled microbusinesses’ by which he explains that gig work is supposed to be one’s own business by use of the platforms services. The same idea is often referred to with the promised entrepreneurial character that gig work should have. Platforms only bring together various kinds of users, and the way a gig worker makes use of this mediation is seen as entrepreneurial freedom. This is done by means of technology and the contracts that the worker and customers of the platform have, are extremely short-term.

Neutral mediation and contingencies

The platforms often present themselves as mediators. Additionally, it is argued by many of these companies that this mediation is neutral. However, as was discussed in [Chapter 3](#) there are many ways in which the platforms have the opportunity to steer the behaviour of the workers. And to put it bluntly: platforms treat their workers like they are employees rather than partners. The question then is: what is exactly happening in this mediation process? First, the mediation process is based on unequal knowledge distribution (Ticona et al., 2019). This way, the power relations on the platform are unequal too. Thinking back to the aspects of dignity that were identified, such an unequal power relation in terms of knowledge and decision-making seems to have implications for equality and transparency. The platform connects workers and other users to each other, without informing the workers why this connection is made – and thinking about the characterisation of platform workers as independent contractors, the question is whether this

conceptualisation is fair. Independent contractors should have the freedom to do their work as they see fit. Interfering too much with their entrepreneurial choices would not be in line with the components of virtue ethics, such as acting voluntarily. Moreover, it has been stressed that the platform sometimes provides wrong information (Ticona et al., 2019). For example, this can be the case when a uber customer/user is not standing at the pick-up point, for whatever reason. In such a case the algorithmic system does not know that the promised pick up point does not match the reality. This is just one example of what is referred to as *contingencies* in platform use. Broadly stated, contingencies are the malfunctions of the system – oftentimes disadvantageous for the workers.

According to Ticona et al. (2019) there are broadly speaking three responses to contingencies in platform work. For instance, there are workers who stop doing gig work at all. Second, there are people who find creative ways to work around the malfunctions of the system. And third there are people who start using more platforms to earn their money, thereby providing themselves a safety net for when the platform – to provide two examples – does not give the opportunity to make a living or when they are deactivated for unclear reasons.

4.3. Conditions of (gig) work

The former section has explained the scale and scope of the gig economy and its basic characteristics. It has, in other words, sketched an answer to the question what gig work entails. This section is dedicated to the second sub-question that this chapter is aimed to answer, concerning the (more specific) conditions under which this platform work is performed.

The first condition that should be discussed is why people engage in gig work, or their dependence on the work. There are people who are not necessarily dependent on gig work (Zwick, 2018; SEO, 2018). These workers have already built safety nets. They have financial independence because of another job, savings, relatively low costs because they are still living with their parents, or have other income streams (SEO, 2018). It is a free choice to engage in the gig economy. This means that these people have other labour options or have the opportunity to opt out at any point. They can dip in and out of gig work, simply to earn something extra. However, there are also workers who cannot freely choose to stop working in the gig economy. These workers lack financial safety and often also have limited employment options, and thereby are the vulnerable groups that were mentioned to be often engaged in platform work (Zwick, 2018; de Stefano, 2017). Gig work is in such a case a last resort for earning money and as such, these people become reliant on gig

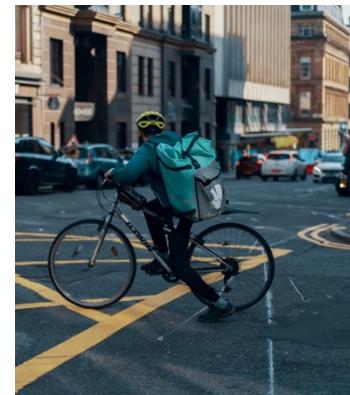
work. This also means that they do not really benefit from the often-mentioned flexibility of gig work as they cannot afford to turn down jobs or work only when they feel like it – and this seems to have an impact on the autonomy of the workers.

A second difference is one between local- and remote gig work. As Wood et al. (2018) discuss, remote gig work does not require physical presence. This is the kind of work which was referred to by Duggan et al. (2019) as crowd work, for example for Clickworker.com. As is illustrated by Figure 8, this kind of work can be done from home. Under remote gig work can further be seen tasks for Amazon Mechanical Turk (AMT), Fiverr, Freelancer.com and Upwork (Wood et al., 2018). Local gig work, on the other hand, does require physical presence. This is work such as taxi driving and food delivery by means of Uber and Deliveroo, which is illustrated by Figure 9. The reason why this difference is particularly relevant, is that the workplace of these workers differs in such a way it has implications for the human interactions they experience or the lack thereof. As human interactions are an important aspect of dignity, this condition should be woven into the interviews.

Figure 8: the workplace of a remote gig worker



Figure 9: The workplace of a local gig worker



Then there are three points stressed in the existing literature that are impactful differences in the functioning of the platform, or the work arrangement. First there are various ways in which the division of work happens in the platforms. In other words, there are various ways in which Dutch gig workers are assigned gigs. According to a report of SEO (2018) typically three ways can be distinguished:

- Platform selects workers and assigns them to the gigs
- Consumer selects a worker from a group of potential workers
- The worker who responds first, gets the gig

The first option is the one with the most power for the platform. It is also the functioning that is most often used in platforms with full functioning AM (so, not marketplace platforms where people indeed only find each other, but online labour platforms such as Uber and UberEATS). In such a case, the platform has full decision power in linking the worker with the other users. Two main points are highlighted in the various studies on gig work about this way of task assignment. Lee et al. (2015) have interesting insights on the transparency of the algorithmic task assignment. They found that more transparency on the task division leads to more willingness to cooperate. Moreover, the authors have seen that more knowledge about the platforms functioning leads to more benefit for the workers. To rephrase these findings: it seems to matter *how* the platform assigns gigs to workers, and *why* it does so, and moreover whether workers *understand* and *know* this.

Then there are, according to the same SEO report about the Dutch gig economy, also three ways distinguished in how price rates are determined (SEO, 2018):

- The platform determines the rate
- The consumer of the service determines the rate
- The worker determines the rate

Again, the first option is the one with the most decision power for the platform. Thinking back to the conditions that were identified for AM, this overlaps strongly with the decision making power and analytical power of the systems. For work arrangement holds the same as for the task division: the literature tells us that oftentimes there is no transparency about the way price rates are determined when this is done by the platform. What *is* known about the way platform set their rates, it that not rarely they use surge pricing (of with the upmost example is Uber) or bonuses (e.g. UberEATS). By these techniques not only the best price is determined, but a way is established to create certain behaviour on the platform too. As these bonuses seem to end up in a lot of differentiation between rates and are used to make the platform more efficient, it seems important to discuss these matters with the gig workers and ask them about the way they experience the way their platform handles the price rates: is it an advantage that they do not have to do this themselves, or would they like it differently?

Performance evaluation is the last condition of platform work that is researched and stressed to be of significant importance (Lee et al. 2015; SEO, 2018). An example of this are platforms using 5-star rating systems after a gig is finalized (idem). There are various interesting insights shared on these evaluations in the gig economy by Eyert et al. (2018). They stress that the use of rating

systems and numbers makes it possible to transform a “continuous reality into a discrete representation, quantifying promises to render human affairs increasingly commensurable and calculable, thereby increasing possibilities for control (Mau 2017)”. (Eyert et al., 2018, p. 48). To put this differently: the ratings turn a whole worker-user experience within a broad context into one snapshot, that is argued to have strong implications for users. Rosenblat et al. (2018), for example, shares that the ratings of Uber drivers determine whether they will get new rides and it even goes so far that accounts can be determined based on the ranking or scores.

Thinking about the quotation of Eyert et al. (2018) and the point made by Rosenblat et al., (2018) this matter touches on the topic of de-humanization by datafication. But it also triggers the question for whom exactly these evaluation systems are an advantage: is it for the company alone efficient to use (automated and customer driven) ratings, or are these ratings good for worker development as well? Does it help to grow as a worker and as a person? These questions seem to link to the virtue ethics perspective that was sketched and need to be considered in the empirical study too.

A last, overarching condition that should be discussed is the communication that is possible with/on the platform – and this point has various manifestations. Different strategies are used for gig workers to communicate *on* the platform or *with* the platform. Where some companies might have a city manager, such as Deliveroo and Thuisbezorgd.nl (Personal communication, June 2020). Others have only a helpdesk that is situated in the country of use, and there are also companies that only have an in-app Q&A function or a general helpdesk (Personal communication, June 2020). This means that the interaction with the mediator knows various manifestations, with variations in human contact. The fact that gig workers do not have colleagues is stressed as important too. Especially remote gig workers are said to be too much isolated (HBR, 2019). But for app workers this concern is shared too, as an HBR article (2019) stresses that the isolation of many ride hail platform workers leads them to search social interaction online.

4.4. Conclusion

The question this chapter provides an answer to is: ***What does platform work entail and under which conditions is it performed?***

This chapter explained that platform work can be defined as the practice of finding and accepting jobs (or rather gigs) mediated by (online labour) platforms such as Uber, Uber Eats, TaskRabbit or Clickworker.com (among many others). There are broadly speaking three types of gig work that can be distinguished: platform labour, remote (crowd) gig work and app work. Essential for all these manifestations of platform driven work, is that typically the workers do not have an employee status and the platform they work for usually does not portray itself as a labour organization.

Together, these jobs that are searched and found on the online labour platforms, have been growing in popularity, and as such one can draw the preliminary conclusion that gig work or has certain advantages over the more traditional ways to earn money.⁵¹ For example, these gigs offer the possibility to decide on one's own working times and as such, platform work offers much freedom. However, gig work is often contested by the fact that the employee status of these workers is unclear and the ways of managing the workforces are not in line with the proclaimed entrepreneurial character of working with the platforms. These steering techniques were discussed in the previous chapter as algorithmic management. However, there are various ways in which platform work can be done and various kinds of people who engage in it. And thus, it was argued that the conditions of platform work need to be revealed too in order to investigate the influences of AM on these workers.

Although the conditions of platform work will be further explored in the empirical part of this study, a couple of conditions are believed to be of importance that can be drawn from literature research. First, there are conditions that are platform- or technology-bound. For example, the selection of *workers and gigs* and determining *rates* can be done to varying extents by the platform, the worker, or the other users. Second, the *communication* on the platform happens in a variety of ways. This concerns the communication with the platform (for example: feedback and complaints) and among workers of the same platform. Then there are also conditions that have a more social character or are more worker-bound. For example, gig workers can find themselves being

⁵¹ Or, in other cases, platform mediated work might be the only option to earn money.

dependent on the job, or not. Moreover, there are people who engage in gig work as a main occupation, a side job, or a hobby. Lastly, there are a couple of hints that the attitude of a worker has impact on their work experience under AM too. For example, it was discussed by Ticona et al (2019) how there are typically three ways to deal with contingencies in the platform. As such, the way the workers perceive flaws of the system can vary because of their own attitude. And this is expected to be of importance for the exploration of worker dignity among the platform workers. In sum, the following conditions can be abstracted from this last theoretical chapter.

- **Work arrangement (contractual status)**
- **Why are people engaged in gig work / dependence on the job**
- **Local / remote gig work**
- **Determining rates and work assignment**
- **Communication on and with the platform**

As a last point, this chapter has shown various insights that can be adopted in the literature on (human) dignity and work as well. One of the reasons why traditional theories that are focused on the worker do not ‘work’, is that among gig workers there is a lot of heterogeneity. There is no such thing as ‘the gig worker’. Notions strictly focused on dignified work do not fit perfectly either. The gig economy exists of many different types of work. Moreover, work and especially worker monitoring have expanded into the private domain. There is no strict line anymore between being at work and being home. The on-demand economy together with strong surveillance technology make the line between work and home blurry. The aim here is not to argue that these theories should not be used at all to investigate dignity in gig work. Rather, just as was argued for a complementary idea of inherent and contingent dignity, it seems like a combination of these ‘dignity subjects’ is most fitting, albeit after updating it to the current state-of-affairs in the platform economy.

4.5. Bridging three literatures: topics of discussion

Having discussed two perspectives on human dignity and the fundamentals of algorithmic management and the gig economy, it is time to reflect on the topics that seem most important to discuss with platform workers. To recap: the second part of this research consists of semi-structured interviews with gig workers to explore among them what it means to work under AM and under which conditions this is done. Some things can be said about the topics that are believed to be important and the precise way in which the interviews are expected to help exploring how the dignity of gig workers is influenced by AM.

At the outset, there were two perspectives on dignity discussed, that both will be explored. First, there is inherent dignity, or violations in a Kantian sense. Second, there is contingent dignity, or promotion of it in a virtue ethics frame. For both of these perspectives it will be explored whether gig workers refer to them or share complaints, concerns or positive experiences that connect to either of these dignity perspectives. This is done with an open vision, meaning that the references to these perspectives are not defined up-front, but first a round of open coding happens. An experience of the concept of dignity is not possible to strictly define before talking to people and letting them put their experiences into their own wordings. Concretely, this means that the preliminary conceptualisation as was formulated in the conclusion of [Chapter 2](#), will be leading in the interviews with the gig workers. An operationalisation of the identified elements of dignity into interview questions can be found in the following chapter.

Secondly, the conditions the gig workers share are of importance. From the discussed literature there are already conditions identified that seem to be of importance for the dignity of gig workers. The various conditions include specifics of the algorithmic system (is it supporting a supervisor or is the worker dealing with a fully functioning robot as manager?), managerial tasks (what does the algorithmic system decide?) but also the context in which people perform platform work (e.g. are workers dependent on the job?) as well as personal attitudes towards the work and the algorithms (how does one cope with contingencies and does one (dis)like the idea of interacting with an algorithm?). These conditions are translated into interview questions too. However, there is also plenty of room for further elaborations on different topics. Again, the matters and attitudes that are important are faced with an open vision. Meaning that the focus will lie on what workers know and what the workers see as important. Their 'lay' vision is then hoped to sharpen the early conceptualisation of worker dignity, by combining theoretical and empirical insights.

5. Research design and interviews

5.1. Clarification of multi-method approach

Expert-interviews

The first part of this research consisted of three chapters with a theoretical discussion, respectively conferring the concept of dignity, the application of AM and the context of the platform economy. In addition to a literature research, combining theories of philosophy, business ethics, HRM and social sciences in general, there are interviews conducted with "experts" in the platform economy. These interviews are conducted to get a more thorough understanding of the interactions in the platform economy and to build a robust understanding of the interplay between the programmer, the system and its input, throughput and output of algorithmic systems. The interviews were conducted with a similar protocol as was used for the semi-structured interviews with platform workers in the second part of this research. The findings are used in-text as an addition to literature research to reveal the topics that could be discussed with the platform workers. Although the interview findings were already used, some reflections on the methodologies are in place in this chapter.

So, what does that concretely offer? In addition to the literature on AM, interviews were conducted with a programmer and middle manager connected to an algorithmic system that is used to steer the workforces of a platform that operates in various European capitals. The case study here involves a company which will be referred to as Scooters&Co. The business of Scooters&Co is renting scooters/steps in several capital cities in Europe. For reasons of privacy, for the name of the company and the people involved are *pseudonyms* used. The programmer and middle manager are both involved with the same system, in different yet both interesting ways. In addition to the literature on the platform economy, interviews are conducted with a helpdesk worker of Takeaway (Thuisbezorgd.nl) and a restaurant manager that works with UberEATS, Deliveroo and Thuisbezorgd.nl. These interviews play a similar exploratory and informative role. This is all discussed in full awareness that these interviews only concern singular cases, which means that one must be aware of the fact that in other platform-ecosystems and other algorithmic systems, probably other dynamics are at play. However, the purpose of this thesis is to explore the possible conditions in which AM might influence the dignity of workers in the gig economy and as such, the using these findings to illustrate the fundamental ingredients fits the exploratory character of this study.

Semi-structured interviews with platform workers

For the second and empirical part of this study, a set of semi-structured interviews with gig-workers is conducted. The interview methodology is chosen as this allows the researcher to prepare questions ahead of time as well as a list of topics to be covered in the conversation. The same technique was used for the expert-interviews. On the one hand, this is a way to make sure all aspects one wants to investigate are discussed. On the other hand, this kind of interviews provides the informants with the freedom to express their views in their own terms (rather than checking boxes) and to introduce issues and topics that they themselves find relevant. There might emerge new issues that were not yet identified in the literature study, because there is not much (or none at all) research done at this moment on this specific topic of dignity in this context. As the research is focused on the conditions under which dignity is enabled or restrained by AM, and these conditions are often varying from case to case, in-depth interviews are necessary to get a complete picture of one's conditions and work experiences. Again, the purpose of this thesis is to explore this phenomenon. This is why the margin of manoeuvre in these interviews is significant. Moreover, researching one's personal experiences is often done by means of qualitative research rather than quantitative approaches (Hussy et al., 2013). Semi-structured interviews can provide reliable, *comparable* qualitative data, more in-depth compared to, for example, inquiry through questionnaires. Qualitative research does not require a clear wording of hypotheses; however, it does need defined objectives beforehand (Cropley, 2011). This means that the interviews are designed based on literature research and the expert-interviews, which makes the topics of discussion more accurate. As such, some elements are already identified that should be taken into account and paid attention to. A scheme with the identified topics can be found in the following section.

5.2. Operationalisation

The following table provides the operationalisation of the identified dignity aspects into interview questions. It should be noted that some aspects have overlap, and thereby there are questions that might reveal insights on multiple aspects at once. In building up the interviews, the goal was to go through the questions in a logical order. This means that the dignity aspects are not listed here in the same order as given before. Another remark is that not all questions were specifically designed to reveal insights on the various dignity aspects, but to ask about the conditions under which platform work is conducted, such as the first set of questions (Q1-5) that start with gathering basic information.

Table 2: Operationalisation dignity aspects

Dignity aspect	Interview questions
General information and work setting	Q.1 What is your age? Q.2 In which city/area do you work? Q.3 With which platform/application do you work? Q.4 Are you using only this application or doing gigs from other platforms as well? Q.5 For how long have you been working via platform XXX? Q.6 What are your means of work apart from the app?
Autonomy + Pursuing internal goods	Q.7 Is the use of this application your primary occupation or a side job? Q.8 How dependent are you on platform work for your incomes? Q.9 What do you find attractive about / what made you decide to do this kind of work?
Work experiences (could lead to insights on multiple aspects)	Q.10 How do you feel at work/ find your work, rewarding/frustrating, can you give an example?
Pursuing internal goods and acquiring practical wisdom	Q.11 Have you developed specific skills needed to perform work via platform XXX? (And if so, which) Q.12 Are there possibilities for improvement of skills / training? (If so, how do you acquire these skills?) Q.13 And do you feel like these skills make you grow / better in your work?
Pursuing internal goods and acquiring practical wisdom + Transparency	Q.14 Do you know what kind of data is gathered about you? Q.15 Do you know how to use these data for personal development?
Equality + Respectful interactions + Autonomy	Q.16 How would you describe your relationship with Platform XXX? Q.17 What do you consider yourself to be, [a partner, worker, employee etc.] of the platform?

Autonomy + Acting voluntarily	Q.18 Are you free to make your own decisions while working? What kind of decisions are made and by whom? Q.19 Which decisions can you not make yourself and are made by the platform and/or clients you work for? Q.20 Can you think of specific features in the application that either allow or restrain you to make decisions/ choose your own path? Q.21 Can you elaborate on the ways to accept gigs and set rates? Q.22 How do you manage to decide what is work time and free-time?
Safety and bodily integrity / downsides	Q.23 Is the work, in general, safe? Q.24 Are there any downsides to the work? Q.25 Do you see current developments related to COVID-19 as a threat or opportunity for you as a platform worker?
Respectful interactions	Q.26 Is there interaction between other people who work with the application? And with the platform? Q.27 What kind of people do you interact with on the job [e.g. people in traffic, customers]? Q.28 Are there any specific experiences coming to mind about interactions on the job? Q.29 Are you, generally, treated well on the job (by those people – see previous question)? Q.30 Is there a possibility to share concerns/complaints?
Understanding of dignity concept (In this section a discussion on what 'dignity' entails is possible and anticipated)	Q.31 What is <i>dignified</i> work in your account? Q.32 In which respect, if any, is platform work (un)dignified for you as a worker? Q.33 Have you ever felt instances as a platform worker were you felt treated in an inhumane way by the platform or clients? (Ask to elaborate)
Respectful interactions + Positive contribution	Q.34 As a platform worker, do you feel valued by the platform, clients and other societal stakeholders? Q.35 Do you have an idea about the external value (valuable job according to others)? (Ask to elaborate)
Transparency + Acting voluntarily	Q.36 Do you have an idea of what type of algorithms platform XXX uses? (Ask to elaborate if attempts are done to find this out, or ask why not) Q.37 What type of decisions or activities does platform XXX automate by means of algorithms / artificial intelligence? (Ask to elaborate) Q.38 If any, which drawbacks does the use of these algorithms by platform XXX pose to you as a platform worker? Q.39 If any, which benefits does the use of these algorithms by platform XXX pose to you as a platform worker?

5.3. Recruitment, population and sample size

As this is an explorative study, participants are searched from various platforms. Together, the interviews should provide insights on all aspects of the theoretical framework. As such, platform workers from various platforms are contacted. One could have chosen to conduct interviews with workers from only one platform, thereby minimizing variety and comparing the experiences of a rather homogenous group. However, by including workers from various platforms, the conditions that the platforms created for their workers can be compared and various visions on platform work can be elucidated – and thereby it helps to answer the research question.

Adler and Adler (2012) have suggested a sample size of twelve for the purpose of thesis with qualitative research. This should ensure a realistic time frame (in terms of planning, conducting, transcribing and lastly analysing the interviews). As such, the goal was to conduct around 12 interviews with platform workers. However, it must be noted that the purpose of the study was to gather different views on gig work and the dignity thereof. Accordingly, saturation was not expected within the interviews with this sample group. Eventually 8 interviews took place. The interviews were conducted by one researcher.

The initial idea was to conduct the interviews in face-to-face conversations. However, due to COVID-19 it landed on the back-up plan. COVID-19 was also the reason for the limited sample size: recruitment in the city centre was not allowed and thereby both the process of recruitment and interviewing had some serious restrictions. All interviews were conducted via online conference tools, most of them via Skype. With permission beforehand, the interviews were recorded in video and a back-up recording was made in audio. The same protocol was used for the expert-interviews. All files are saved offline for reasons of privacy. The interviews were subsequently transcribed, by ‘hand’, using the web based transcription tool otranscribe⁵², which is often used for necessary word processing as it also allows for audio controls. Dutch interviews were translated into English. The analysis of the data was done by use of Atlas.ti⁵³ software.

Some things can be said about the inclusion and exclusion criteria of the interviewees. The main criterion for an interviewee to be included in the research is to work with use of a platform. This can be present-time and in the past: people who used to do gig work were included too. To focus

⁵² <https://otranscribe.com/>

⁵³ <https://atlasti.com>

on the experiences of gig work in the Dutch gig economy, only gig workers working in the Netherlands were interviewed. The nationality of the workers was not taken into account for the recruitment: among the respondents were multiple international students. An inclusion criterion was that the interviews would be conducted in English and Dutch. The reasons to interview workers from various platforms is already explained. Furthermore, workers who worked with various platform simultaneously were also happily invited. The employment status was not a strict criterion for inclusion or exclusion. Most gig workers have the independent contractor status. However, good to mention upfront is there was one worker interviewed with an employee contract and hourly pays. This worker, who delivers for Thuisbezorgd.nl, is included because her work arrangement for Thuisbezorgd.nl is very similar to that of gig workers, except for the fact that she is employed and has hourly pays. Apart from this, she deals with similar AM techniques. It is expected that – being aware of this variable – her experiences of working with a (partly) algorithmically managed system, are still of interest.

5.4. Data collection

Of course, as this research focuses on the rather abstract concept of dignity, some things are to be said about the reliability and the validity of the research. To make sure the observations are accurate (meaning they are precise, reliable and valid), and any errors by the operationalisation, researcher or respondent are anticipated, the following things were taken into account.

First, the interview questions and topics of discussion were peer-reviewed before use to make sure the questions were clear and open. When participants are asked directly about their dignity (or possible violations of their dignity) it is improbable the answers given will be accurate, for it is not clear what is meant by dignity. This was anticipated and therefore taken up in the interview protocols. The list of topics consists of several aspects that might influence the actual and perceived dignity, based on the bridged findings of the first chapters. Furthermore, in the interview protocols was made enough room to clarify and elaborate upon one's answers. The full interview protocol can be found in [this appendix](#). Questions like "Is the work, in general, safe?" might lead to ambiguous answers. This is why such questions are always followed-up by the question whether examples can be given or whether one can explain their answer more in-depth. Examples of clarifying questions are: "What do you mean when you say XXX?" or "Can you explain XXX more thoroughly?". This is done to make sure no random errors occur. When an ambiguous answer is given, the respondents were asked to express themselves differently.

5.5. Ethics

All interviews were conducted in accordance with the rules and regulations of the University of Twente. The research was conducted with approval of the University of Twente's ethics committee, a body that is tasked with whether research proposals are in compliance with ethical guidelines, the GDPR and the Dutch law.

5.6. Results and discussion

The data analysis was done inductively. I started with 'primary-cycle coding', in which I analyzed the interviews to identify patterns and categorizations (Tracy, 2013). This is a process of line-by-line coding (Lindlof and Taylor, 2011). The goal was to highlight words and sentences mentioned by participants. For instance, the initial coding round included 'being used by' and 'being treated as', when focusing on a Kantian idea of being treated as an end or de-humanization.

Additionally, by using the data software package Atlas.ti, I was able to highlight and label passages with various codes. I simultaneously coded for key experiences that illustrated the dignity aspects and for conditions that affect the dignity of the workers. For example, I paid attention to interactions between platform users and how people referred to this (e.g., 'customer', 'users', 'bosses'), to unravel ideas on respectful interaction and identifying responses to contingencies (e.g., 'quitting', 'coming into action' and 'trying to outsmart the system'). In Table 3, some general information about the participants is shown. Also, some main conditions of the work arrangements that were coded for all interviewees is summarized. This is done in a schematic overview for reasons of clarity.

A couple of things can be said about the sample of gig workers when reviewing this table. First of all, there is only one woman among the interviewees. As the sample group is too small to be a realistic representation of all gig workers in the Netherlands, no conclusions can be drawn about whether more men than women engage in platform work based on this sample. However, what should be said is that there is a possibility that women have significantly different experiences with gig work and AM. It might be interesting to further explore this in future studies, as this study cannot sufficiently reflect upon this.

A second notable point, is that none of the interviewees is financially depending on gig work. This was not a criterion for inclusion, but is an coincidental shared condition among these workers. While it was not intended, it does have great implications for the experiences of interviewed

workers. As will be discussed further in the results section, the dependence of workers has great impact on the way they evaluate contingencies and, for example, the power relations on the platform. As such it is anticipated that a study with gig workers that are depending on their platform-incomes, would lead to other insights and seems rather interesting for future research.

Table 3: General information and conditions gig workers

Gig worker	Platform	Multi-homing	Gender	Main occupation / side job / hobbyist	Financially dependent	Local / remote gig work	Employee contract	Determining own rates
A	Uber	No	Male	Main occupation	No	Local	No	No, varying rates and bonuses
B	thuisbezorgd.nl	No	Female	Side job	No	Local	Yes	No, paid per hour
C	clickworker.com	No	Male	Hobbyist	No	Remote	No	No, paid per click
D	UberEATS	No	Male	Side job	No	Local	No	No, varying rates and bonuses
E	UberEATS	No	Male	Side job	No	Local	No	No, varying rates and bonuses
F	UberEATS	No	Male	Side job	No	Local	No	No, varying rates and bonuses
G	Deliveroo	No	Male	Side job	No	Local	No	No, varying rates and bonuses
H	UberEATS, Deliveroo Past: thuisbezorgd.nl	Yes	Male	Side job	No	Local	No Yes	No, varying rates and bonuses No, paid per hour

Results of found indicators of worker dignity

People count more than profit

Crucial for both the virtue ethics perspective and the Kantian perspective on dignity and work – and thereby a good starting point for a dignity conceptualisation that includes aspects of both of these perspectives – is the idea that for worker dignity, the worker should have the idea that ‘people count more than profit’ in their work setting. Putting people over profit is the contrary of merely being used as a means or being instrumentalized. In the interviews, a lot became clear about the vision the workers have on this idea. In sum, 7 workers shared the idea that profit comes first for the platform. Only 1 worker shared the feeling the platform puts people first.

For Uber and UberEATS workers, the sketch was rather negative. Respondent H shared that “*Uber doesn’t care at all about what workers do*” and similarly respondent F stated about UberEATS that “*they never notice anything because they do not care*”. Respondent A, who is a driver for Uber, quite literally shares the feeling that profit comes first for this platform, when he explains that a lot of problems that are shared with the platform are responded to with an appeal on the workers ‘entrepreneurial risk’, something that was referred to by De Stefano (2018) and Ticona et al. (2019).

The most typical cases to test how the platform deals with dignity violations for the workers during their gig work, are incidents in traffic and with other users. This was already stressed by Rosenblat and Stark (2016). The reactions of the platform ‘when something goes wrong’ tells a lot about the worker-platform relation. A strong appeal to entrepreneurial risk is interpreted as ‘an easy way out’ for the platforms.

Respondent A (Uber) shares: “*I’ve dealt with sexual harassment on the job. Of course, I didn’t like that. When you report a complaint like that to Uber, all they say is, "yeah, that’s too bad", but they don’t really come up with a solution. You also have an option that you can pay for a ride by card, then someone makes a far ride and then he sprints out of the car and you’ll never get paid. Again, they told me, too bad, entrepreneurial risk.*” These experiences tell a story of dignity violations that were not taken seriously by the platform. Violating someone’s bodily integrity and literally using them as a resource is not in line with the principle of human dignity. These violations are blamed by respondent H on the business strategy of the platform and he stresses that the well-being of the worker is not among the platform’s priorities.

The worker who thinks people are put first by the platform, connects this to the feeling that the platform provides proper human help when needed. Respondent B, the Thuisbezorgd.nl worker, explains that when she had a traffic accident, a city manager came to help her and she was told “not to worry about the deliveries”. This immediately shows how Thuisbezorgd.nl is applying algorithmic management in such a way that a human manager always can be called in case of contingencies and emergency. This emphasizes the idea that algorithmic management and its’ contingencies can be accepted when proper human help is given and seen as negative when the algorithmic system is the only way of communication or has the ‘final say’. Respondent G, a Deliveroo rider, who is currently building his own platform based on his experiences with Deliveroo, explicates that the use of algorithms is not negative per se, but human interaction and

control is necessary for decent gig work. As a general observation it can be said that Rosenblat and Stark (2016) seem to be right in the statement that algorithmic management is often evaluated positively, except for when something goes wrong.

Respectful interactions (being treated as an end)

It is not a coincidence that a lot of these experiences are strongly connected to meaningful and respectful human interactions. Authors such as Bowie (1998) and Sayer (2007) argued that respectful human interactions can help to resolve the ignorance of humanity. Interestingly all 8 workers expressed that AM works perfectly, *if everything goes according to plan*. When something goes wrong, however, the various ways in which platforms prioritize people and profit comes to light. From the interviews it can be taken that these workers think AM can be applied in a dignified manner, under the condition of a properly available, helpful and respectful human helpdesk or manager (which is stressed by 6 out of 8 interviewees).

There are also direct references to disrespectful interaction or de-humanizing treatments. A number of 5 workers have articulated feelings of 'being used', 'being played with' or 'being seen as a means'. For example, respondent H, who works with UberEATS and Deliveroo states: "*Uber plays with you. If they notice less people are online, then they pay way more. Then they have all kinds of bonuses. Like 20 percent extra on a ride, or after three rides you get 5 euro extra*". In this case, the feeling of being used is thus linked to price surging and nudging techniques (Gal et al., 2020).

In line with this, respondent A (Uber) states about being used by the platform: "*I had a ride from two people in Amsterdam. When he paid by card, it turned out that there was still an account open of an order through UberEATS. Then I was used as some sort of collection agency, I didn't like that very much. Those are choices that are made by Uber, you have nothing to say against that*". This example is the liveliest one to show how gig workers have the feeling of being treated as means by the platform. What is interesting here, is the personal attitude towards the algorithm. The worker shares the feeling that there is nothing to do about the platform's decisions. There are, however, also workers who try to find creative ways to work around contingencies, and these workers have to a lesser extent the feeling of being used. Three workers shared that they tried at some point to outsmart the system. The Uber driver shares an experience when there is no way of working around the decisions by the platform. For a certain period of time, he was depending on the incomes of his Uber work, and this meant he had to accept the decisions made. It thus

seems that the feeling of being used strongly connects to the dependence on gig work, the perceived flexibility and/or the openness of the algorithm and the personal attitude of the worker.

What is also reflected upon, is the feeling of de-humanization by datafication. Among the interviews there are 3 references to “feeling a number” (Respondent A, D) or being tied by “ratings” (Respondent A, H). One UberEATS rider said: *“When I came to the office, I had to give my worker number. I told them my name, but the woman told me she needed my number because they do not work with names. Then I realized I really am a number to them”*. The Uber driver states: *“When you go to the greenlight hub, and sign up, they don't want to know your name but your phone number... Then you really feel like they know you like a number. That's kind of an eye-opener. That gives you just a pretty shitty feeling”*. These findings acknowledge the ideas of Gal et al. (2020) and are straightforward examples of de-humanization.

Regarding the rating system, one particular quote stands out. Respondent A said the following: *“I have to say, I think that rating system is ridiculous because anything under 5 stars is a vote of no confidence. So, I always give every client 5 stars. Unless the client is really annoying, I give him 1 star and I can send feedback to Uber but nothing is done with that.”* To connect this quote to the aspects that were identified, it seems as if the rating systems work well for the platform and the customers, however, it is not working for the workers at all. This is a typical example of an AM technique that is not executed in compliance with the ‘growth for both’ principle, and, referring to Gal et al. (2020) it does not promote dignity from a virtue ethics perspective. The worker added to this that more human contact in the application could solve this problem. It seems that for performance rating systems to be dignified, human interaction with the platform is necessary and the rating systems should not be too decisive or unchangeable. They should be a tool, but not be leading, which is in line with the idea that people (should) count over profit, and makes human interaction, again, a key factor.

Another point that was discussed with all gig workers which gave interesting insights was the interactions they have with other platform users. Interaction with other people is by many gig workers seen as a personal matter. Of all workers, 7 shared that unpleasant interactions with platform users (customers) are not to blame on the platform. However, the respondent working as an Uber driver shares a different idea on this point. He explains that he has to accept these disrespectful people in his car and that he fears a one-star rating when he tells them to behave. This is because the platform does not provide a feedback mechanism in the application for when

disrespectful interactions occur among users. This means that, in fact, the platform should do something to prevent disrespectful behaviour in the platform in order to safeguard dignity. For example, by letting people explain why a certain rating was given. Eventually, de-humanization and respectful interaction are intertwined and the platform can certainly play a role in safeguarding a dignified platform environment by safeguarding respectful interactions.

Transparency

Another dignity aspect that was reflected on, is transparency. Overall it can be said that in this sample of gig workers, people do not have the feeling they are *informed*. This has multiple manifestations. Respondent C (a Clickworker), the only remote gig worker, has the strongest feeling that he is uninformed. He states that he is often unaware of the kind of 'greater good' he is doing tasks for and moreover, he never knows what kind of company he is working for and that this bothers him. This was a response that can be rhymed with the theories such as that of Blauner (1964) who talks about meaninglessness, or more fundamentally with theories of alienation in tradition of Marx.

Among the local gig workers, feelings of being uninformed are mostly shared in combination with ideas on (a) task division, (b) bonuses, (c) price rates and (d) deactivated accounts. The most negative experiences of being uninformed are connected to feelings of inequality, arbitrariness and randomness. There are various responses to these 'uncertainties' of the workings of the system. Where 2 workers share they sometimes try to unravel how the system works, 3 workers say they have never thought about it and 3 have tried to 'outsmart' the system, by coming up with creative ways to work around the output. There are various quotes that elucidate these experiences. Respondent A (Uber) states: "*We have sometimes asked how it is possible that two drivers work at exactly the same times and earn completely different wages in the same city. Then they say it has to do with the fact that you don't drive in the right area. But what is the good area then? They can't share it because of privacy reasons.*"

The employee of Thuisbezorg.nl. explains that she is managed by algorithmic systems, but the fact that she has an hourly pay makes it unnecessary to worry about the task division and similar algorithmic decisions. For her, the security of income has made the working of the system less pressing than for workers who need to understand the system in order to make (more) money.

A logical suggestion would be that a proper understanding of such a system should be possible at all times, which is of even greater importance for gig workers with the contested entrepreneurial status, because they have to make ‘entrepreneurial’ decisions based on the systems working. This aspect links to the virtue ethics components too, as it can be said that holding information from the workers is restraining their dignity as they are not able to develop themselves as virtuous agents. Growing in gig work demands an understanding of the systems that are supposed to be a tool for the workers. Moreover, the third component demands that agents can act for the right reasons, and a lack of information can compromise this.

Equality

Then there is the point of being uninvolved and the existing power relations in the platform economy. This idea was touched on by the respondents most when was asked about the possibility to share feedback/complaints, but more interestingly, the lack of being heard by the platform is also most reflected upon when asking about the negative sides of the gig work setting and the use of algorithms. The answers there were various. For 4 Uber and UberEATS workers there was the feeling that giving feedback would not work at all. This concerns the feedback the workers could give to the platform. It was also shared by multiple respondents that there is no way of asking to reshape the system. Respondent G was the most positive about the possibility to be involved. He gained on own initiative a role as city manager for Deliveroo and has monthly chats with a spokesman of Deliveroo NL. This means that for this worker, being heard is strongly connected with the feeling of being seen as a means or an end in itself, but also to the feeling of meaningful work (positive contributions).

Autonomy

Another aspect that is commonly expressed is ‘autonomy’ (Bowie, 1998; Bal, 2017). This autonomy can be understood in two ways. First, in the sense that people should be free to enter a job autonomously. Second, the autonomy should hold during work as well. It is stressed by authors such as Bowie that autonomy stretches into the work sphere too. Only 1 worker said he did not have other options for earning money than working for UberEATS. The other workers chose gig work over other jobs. The worker who saw gig work as his only option, actually refers to this as an enriching aspect. This interesting reference to autonomy was made by respondent D, an UberEATS worker who is an international student in the Netherlands. He shared that UberEATS was the only job he can do as an exchange student. Thereby he felt like this work was a “big boost” of his autonomy, as this was the only way to make his own living and not being

dependent on loans and family money. The fact that Uber work is a great opportunity for exchange students and people from abroad was a novel insight.

Focusing on the autonomy during the work, there are 4 workers that shared the feeling that they were being ‘tricked’ or ‘steered’ into certain behaviour. However, as this was done by offering very high price rates for gigs or particular hours, 4 of the 8 workers do not see this as negative and feel that they can make conveniently use of this. One respondent is less enthusiastic. Respondent A states: *“The first period, you easily earn 50 euros an hour. Only at a certain moment after about 3 or 4 weeks the tap closes and then you wonder why it is so quiet all of a sudden. You hear from others that this is a tactic that is used more often. That the algorithm is set up in such a way that the first few weeks you drive, you earn a lot, so that you get sucked into that app, and later on you notice that you make days of 10 or 12 hours for a rather limited turnover”*. The reason why the Uber driver is the only worker that is negative about the bonuses, is that he is the only one who tried to make a living out of gig work. Again, the dependence on the income has strong implications for the way people deal with contingencies and negative sides of the app-work. Moreover, when was asked whether the workers would like to – for example – set their own price rates, some shared that they would rather know why a certain rate or gig was offered. There were also very positive reflections on certain freedoms in gig work. For example, one rider for Deliveroo shared that he sometimes works in different cities and that other work would never allow him to do this so freely.

Positive contributions

A dignity aspect that was expected to be of importance, but was not acknowledged as expected by the workers, was making positive contributions. Only one worker, who works for Deliveroo but also has gained a special status of ‘city manager’ has the feeling he makes a positive contribution and does meaningful work. Five workers literally share the feeling that their work is just a way of making money, and is “not important”, “not meaningful” or “not significant”. Following Sayer (2007) who claimed that human interactions (e.g. in the form of manager-worker interactions) have the role of acknowledging contributions, the feeling of doing insignificant work and efforts could be linked to the fact that no human supervisor acknowledges the efforts made. Unfortunately, none of the respondents had done similar work under a human supervisor, so none of them were able to compare their feelings of contribution in non-algorithmic management settings.

The virtue ethics components: pursuing the internal good, acquiring practical wisdom, acting voluntarily

Interestingly, there is a common idea among all 8 workers that there are not distinctly interesting skills needed for the gig work they perform(ed). Moreover, it was often stressed that there were not many new skills acquired on the job. Examples of newly learned skills were navigating, filling out tax forms and dealing with difficult customers. Of course, these skills come in handy outside of the job in one's life too, but this was not reflected upon by the interviewees. There are also no workers that feel the need to grow in this kind of work. Respondent C, a Clickworker, explains: "*Of course you get better in general in these kinds of tasks, but it is always a new sort of puzzle. There is no training for Clickworkers like me.*" This answer does reflect upon the discussed components of virtue ethics. While the platform does not provide tools to grow as a worker, the worker does have the feeling he trains himself.

When the question was asked whether he misses these kinds of trainings or perhaps searches for help online among other Clickworkers, he explained: "*You should not think too much of this job. It is like a hobby. I click, and when it really does not work for me, I just stop the task. Then it is not worth the effort because it pays so little*". What is interesting about these quotes, is the fact that the worker does not have the feeling he can get proper help when he is stuck in a task, nor has the feeling there are other workers available to chat about experiences. This means that algorithmic management is not helping him to grow, but rather restrains his ability to acquire practical wisdom. However, as he is completely independent on the incomes, he stresses that he does not care at all. Moreover, as he does 'clickwork' as a hobby, it can be argued that this practice is actually enriching for him as he is engaged out of interest. One aspect that was not found in the literature but reflected on in the interviews, was a problem of language in using the applications. Respondent D shared that he and other friends working with UberEATS, has great troubles understanding the application and the tax forms as they were presented in Dutch and not in English. This is a very practical condition that restrains a workers dignity in the virtue ethics perspective, but of course links to autonomy too.

There were also examples of workers that thought the platform provided them with tools to grow in their work. For example, respondent D shared that UberEATS provides the opportunity to build one's own user profile. This was a novel technological aspect that was not identified in the literature study. He stressed that he really liked this option as this gave him the opportunity to present himself as a worker. This feature allows the worker to use his entrepreneurial freedom.

He also stresses there are guides available for how to do the UberEATS delivery work best and how to interact with the customers. This is a good example of an aspect of the platform that allows the worker to grow in the work and to put his skills to use. It can be said that growing in gig work is most necessary when a worker plans on doing the work for a longer period of time, or when one is depending on the incomes. People who do gig work as a side job, as an extra or a hobby, do not convincingly share the need to grow in their work. Moreover, explanations and guidelines on how to use the various in-app tools to one's own abilities and to develop themselves, seems to strengthen dignity for the workers.

A last topic that was discussed with the workers is that of data gathering. The interesting thing is that most workers do not have an idea of the data that is gathered about them, but also do not have a negative feeling about the fact that they cannot use this information for their own improvement. From both the Kantian perspective and the virtue ethics perspective, data gathering is an important topic. Although these workers did not express that they should be able to use or own the data gathered about them, from literature we know that this is actually the case (van Doorn, 2018; Rosenblat & Stark, 2016). What they do share, is that the efficiency of the platform is beneficial for them too. Also, the high amount of money one can earn on the job are seen as a benefit for both sides. In general, they do not express the feeling that they can barely benefit from the platform structure. There is one rider (respondent G, Deliveroo) who expresses the platform as a community in which all parties work together to make the best out of it. This is the only person that refers to mutual growth and collaboration in terms of growing as a *community*. This means that he does not see the platform as a means alone, he tries to give to the community as well.

6. Conclusion: bringing the human back into AM

6.1. The findings

The research question that was leading in this thesis was the following: ***Under which conditions can algorithmic management enable and restrain dignity in gig work?*** The answer to this question has multiple sides.

As a start, it was discussed that the conceptualization of dignity includes a Kantian and a virtue ethics perspective. In sum, we can speak of worker dignity when one's inherent dignity is not violated. This can be done by means of rights and (universal) rules. However, the argument made here is that we should move beyond this and leave room for the development of workers in accordance with their individual preferences and character. It means that dignity in a contingent perspective should be promoted too. Keeping this in mind, some conditions are relevant for the way AM affects this worker dignity.

Drawing on the interviews, overall the workers did not have a negative opinion about being algorithmically managed. In a general – and positive – way, it can be said that algorithmic management can enable worker dignity. Several situations were shared in which we can speak of experienced worker dignity (and the dignity aspects were positively referred to). As a start, AM can enable dignity in the sense that it provides work with a lot of freedom and flexibility, thereby increasing the workers' autonomy. When people enjoy gig work and earn some extra money with it, it can be enabling dignity too from a virtue ethics perspective. Gig work can also be enriching in the sense that people can do work they would not be able to do otherwise or work in places they would otherwise never work. The algorithmic system is then used as a tool to do this work.

However, there were also experiences shared of dignity violations. And several conditions can be linked to these instances in which AM is restraining dignity. First of all, the lack of transparency when it comes to the algorithmic system and data gathering is negatively referred to. A lack of understanding of the decisions made by the algorithms restrains dignity in both the Kantian (by decreasing autonomy and equality in turn) as well as the virtue ethics perspective. What is more, there is a strong need identified among the gig workers for (respectful) human interaction in the platform environment. The importance of human interaction was already expected based on the literature research, but the empirical research showed that human interaction is the topmost

condition for worker dignity. Human interaction is not only an important dignity aspect on itself, but connects to all other aspects too. The way in which AM is used (meaning the throughput of the system) does not seem to be a matter of interest for the workers, as long as there is proper helpdesk and feedback options available. When there is no human help when contingencies occur, or no possibilities to share feedback, suggestions and complaints, this is a restraint of worker dignity as expressed by the workers. Even for the feeling of making positive contributions, human interactions seems to be the key condition. In other words, human involvement is a necessary condition for worker dignity and should be realized in the input, throughput and output of AM systems. The key towards worker dignity in the researched context, thus seems to be “bringing the human back into AM”.

The goal here is not to argue that as long as human supervisors remain in charge, worker dignity will be safeguarded. I am fully aware of the possibility that human managers can be de-humanizing too, or can fail to create a workplace in which worker dignity is promoted. Although such considerations are touched upon in [Chapter 2](#), investigating the role of human supervisors on worker dignity lies not within the scope of this thesis. One of the major results is that interactions with humans are preferred over interactions with (solely) an application or a system. A combination of algorithmic and human management might be most optimal for the future and the key is to design this combination (or cooperation) in line with worker dignity.

Aware of the fact that personal attitudes and conditions make it difficult to strictly express when worker dignity is violated or restrained, I propose some meta-conditions that should be met in order for platforms to execute AM in a way that in general does not restrain, and moreover can promote, worker dignity. These conditions are put together in such a way that regardless of the personal conditions of the workers (such as the amount of time gig workers spend on thinking about the functioning of the algorithmic system, or their personal interest for technology and their ignorance of the value of gathered data) they can safeguard dignified AM in gig work. The list is constructed so that inherent dignity should not be restrained, and on top of this, the components of virtue ethics (and thereby contingent dignity) are promoted. **Bearing all this in mind, it is concluded that the following meta-conditions are a way of working towards dignified algorithmic management:**

- Platforms using algorithmic management should make sure the algorithmic system remains a ‘tool’, **human contact** should always be available and a human (middle manager) should have the final say in case of contingencies. Building in human contact can help to avoid feelings of being treated as part of a machine and improve the feeling of being part of a community.
- Platforms that use algorithmic management should **involve workforces**, so that AM systems are not imposed on gig workers but adopted in agreement. Involvement could happen by providing opportunities (and listening) to feedback as well as including workers in the enhancement and design process of the applications. One could also think of voice mechanisms, information rights and co-determination rights.
- Algorithmic management systems should be shaped in such a way that their application is **beneficial for both the users and the platform**. More concretely, this means that the various specific tools used by platforms should have a positive effect for the workers too. When performance tracking systems are used, this should be done in such a way the worker can benefit from the system too. Moreover, by no means the system should put more workload or pressure on the worker, for instance by reducing performance to non-explainable ratings, while it is significantly reducing the workload for platforms.
- Platforms using AM systems and apply surveillance techniques or monitor data, should be **transparent** about the data usage. ‘Growth for both’ is also crucial here. Workers should be able to benefit from the gathered data. In other words: platforms should be willing to share information.
- Platforms using algorithmic management should be able and willing to **explain decisions** made about the workforce (meaning the input and the throughput of the system should be explainable for workers).
- In line with the former point, the platform should **promote good behaviour and skill development** and does not withhold information that allows the worker to ‘grow’ as a person or as a worker.

Respecting these conditions is, based on literature and empirical research, believed to be a way towards dignified gig work under algorithmic management. By bringing in more human involvement, and putting a stop to de-humanizing practices, embracing such conditions would be a first step for ‘bringing the human back into algorithmic management’.

6.2. Contributions

This research was designed so that it could make a contribution to the social science studies reflecting of gig work and AM, by offering a lens of ‘worker dignity’. First of all, by using the concept of dignity, earlier investigations into the well-being, autonomy or other aspects of the positions of the worker, can be brought into one discussion, as dignity is often seen as an overarching notion. Moreover, as Lucas (2017) discussed, among the empirical investigations into dignity, only studies can be found on violations and threats to dignity. This research focuses on both the violations and promotions of dignity, and thereby provides a novelty to this field of research, trying to map dignity as a positive experience in gig work too. Lucas (2017) also stresses that researchers have been tempted in the past to forget about asking workers directly about their experiences of and thoughts about dignity. This research tries to move beyond a priori assumptions, by contrasting the findings of theoretical research and the statements of the workers. The experiences of the gig workers have brought insights to the table that were not identified from literature research. Lastly, the framework that is put together in this study can be used as a start for further research into the dignity of people working under AM. A great effort is done to kick off thinking about AM and gig work in a novel manner.

Furthermore, by providing a systematic overview of AM in which the throughput of the system is added, a starting point is provided for concretely discussing which aspects of AM systems can be changed, co-shaped or made transparent in order to make gig work more dignified (in practice). In other words: by schematically illustrating how these systems work, I have tried to give a clear idea of what might be happening inside of the black box and build solid grounds for further research and practical action.

The contribution that can be made to the field of philosophy, is a number of points to reflect on when contemplating dignity of work. It is suggested that the literature on dignity and work *is at least challenged* by the idea of algorithmic management and platform work, and traditional theories of workplace- worker and work dignity can be used to investigate these phenomena when adjusted to the (on-demand, online and offline) socio-technical character of this work arrangement. The practice of gig work and algorithmic management have quite some novelties that were discussed to create new opportunities and gaps in the existing literature on working with dignity. A lot of aspects of work, of which many have been the entrance point for theories on dignity, are different in the gig economy as opposed to more traditional settings. For instance, it was

discussed that the private and work domain are mingling now, work is micro tasked and heterogenous, contracts are not in place for most gig workers, employee statuses are not given, and managers are replaced by algorithms. As such, theories of dignified work, workers and workplaces need serious reflection.

6.3. Suggestions for further research

Based on the findings and the discussion of this study, some recommendations for further research can be done. As was already hinted in the discussion: study had a couple of limitations concerning the sample group. For example, while dependence on gig work was found to be an important condition for worker dignity in the literature research, the interviewed gig workers were not dependent (or at least not fully or for a longer period of time) on gig work. This had some consequences for the findings. The expectation is – although the recommendations and conclusions have taken this condition into account – that a similar investigation of dignity would be different when interviewing those who try to make a living out of gig work and are completely depending on the platforms. As this study was of an explorative character, the limited sample was sufficient to start exploring dignity of algorithmic management. But for further research I would recommend interviewing larger groups, and various sub-groups of gig workers to see whether differences in dignity perceptions and experiences can be found between them. A suggestion for the differing variable between the groups could be (among other options): being dependent on the job or not, having an employment contract or not and including more women in the research. A first concrete suggestion is thus to repeat this research, but on a bigger scale and taking in the lessons learned from this study.

The second suggestion is to take a study such as this one outside of the platform economy, as the phenomenon of AM is quickly stretching outside of the platform world. Sectors like health and the public-domain would make rather interesting case studies for the dignity implications of being algorithmically managed. The conceptualisation of worker dignity could then be used as a starting point for exploring how dignity is enabled and restrained under AM in these sectors too. Findings between the sectors could moreover be compared in order to see whether intersectoral differentiations in work conditions influence the dignity of workers under AM.

Moreover, given the fact that applying algorithmic HR decision making systems is growing rapidly, the findings of these and similar studies are likely to have implications from a public policy

perspective. When further research is done, an interdisciplinary approach is surely recommended, and the role of public administrators should not be neglected.

The last thing that seems particularly interesting and important to research, is how workers and other platform stakeholders, could be brought together to discuss how worker dignity could be promoted and safeguarded in the future. Participatory, anticipatory communication and consultation (for example in the form of workshops) between platform stakeholders looks like the best way to ensure technological practices are well implemented and improve platform outcomes for all parties. These workshops could immediately be a way to include policy makers in the discussion. As such, a study that results in participatory design workshops, or focuses on the motto 'dignity by design' looks like a rather interesting road to 'bring the human back into AM'.

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Appendices

The interview protocols

A. Interview protocol gig worker

Explanation of goals and purposes research
Asking consent on recording the conversation
Explanation of anonymity results
Takes approximately 1 hour

What is your age?

In which city/area do you work?

With which platform/application do you work?

Is the use of this application your primary occupation or a side job?

How dependent are you on platform work for your incomes?

Are you using only this application or doing gigs from other platforms as well?
(Ask to elaborate)

For how long have you been working via platform XXX?

What do you find attractive about / what made you decide to do this kind of work?

What are your means of work apart from the app [bike, scooter, laptop, et cetera.]?

How would you describe your relationship with Platform XXX?

What do you consider yourself to be, [a partner, worker, employee etc.] of the platform?
(Ask to elaborate)

How do you feel at work/ find your work, rewarding/frustrating, can you give an example?

Have you developed specific skills needed to perform work via platform XXX?
(And if so, which)

Are there possibilities for improvement of skills / training?
(If so, how do you acquire these skills?)

And do you feel like these skills make you grow / better in your work?

Are you free to make your own decisions while working?
(What kind of decisions are made and by whom)

Which decisions can you not make yourself and are made by the platform and/or clients you work for?
(Ask to elaborate)

Can you think of specific features in the application that either allow or restrain you to make decisions/ choose your own path?
(Ask to elaborate)

Can you elaborate on the ways to accept gigs and set rates?

Is there interaction between other people who work with the application?

What kind of people do you interact with on the job [e.g. people in traffic, customers]?

Are there any specific experiences coming to mind about interactions on the job?

Are you, generally, treated well on the job (by those people – see previous question)?

Is the work, in general, safe?
(Ask to elaborate)

Is there a possibility to share concerns/complaints?
(Ask to elaborate on helpdesk interactions)

Are there any downsides to the work?

How do you manage to decide what is work time and free time?

Do you see current developments related to COVID-19 as a threat or opportunity for you as a platform worker? (Ask to elaborate)

Have you ever felt instances as a platform worker where you felt treated in an inhumane way by the platform or clients?
(Ask to elaborate)

What is dignified work in your account?

As a platform worker, do you feel valued by the platform, clients and other societal stakeholders?

In which respect, if any, is platform work (un)dignified for you as a worker?

Do you have an idea of what type of algorithms platform XXX uses?
(Ask to elaborate if attempts are done to find this out, or ask why not)

What type of decisions or activities does platform XXX automate by means of algorithms / artificial intelligence? (Ask to elaborate)

If any, which drawbacks does the use of these algorithms by platform XXX pose to you as a platform worker?

What are drawbacks of the use of algorithms by platform XXX have for you as workers?

If any, which benefits does the use of these algorithms by platform XXX pose to you as a platform worker?

Do you have an idea about the external value (valuable job according to others)?
(Ask to elaborate)

Are there any other topics you want to discuss or comments you want to share?

Asking if there are other contacts I could interview
Thanking the interviewee

B. Interview protocol algorithm-programmer

Explanation of goals and purposes research
Asking consent on recording the conversation
Explanation of anonymity results
Takes approximately 1 hour

What is your educational and professional background?

What kind of job do you have (in which context do you develop algorithms)?

For which platforms/applications have you worked/programmed?

What kind of algorithms do you develop [among which those that steer workforces]?

Developing systems to manage workforces

What does an initial request for developing this system / the description look like?

How are the requirements communicated?

What is the input you have? (How) Are datasets and parameters given?

What is the degree of freedom you get in designing the system?

How many people are working with this system? [How many people understand what it does and how it is made?]

Can you explain what kinds of algorithms can be requested? (Descriptive, predictive, prescriptive? Moreover, what kind of terminology is used for this?)

Can the algorithm then make decisions or take steps that you cannot follow or explain anymore? Or is the outcome always explainable?

Do you have a clear idea of the real-world setting in which your algorithm is going to be used?

Do you (or does anyone) think of the ethical implications of the algorithmic decision making?

How does testing and feedback work?

Does it involve long-term (re)development relationships, or is the development only initial?

Do you have any idea how that works in other (more prominent) companies?

Do you see current developments related to COVID-19 as a threat or opportunity for you as a developer? Changes in the applications maybe?

Do you have an idea about dignified work?

Can you see how algorithmic management might enable or restrain the dignity of platform workers?

Can you provide examples of the working of algorithms that either enable or restrain the dignity of workers?

Are there any other topics you want to discuss or comments you want to share?

Asking if there are other contacts I could interview

Thanking the interviewee

C. Interview protocol restaurant worker

Explanation of goals and purposes research
Asking consent on recording the conversation
Explanation of anonymity results
Takes approximately 1 hour

In which context do you come into contact with platforms and platform workers?

With which platform(s) have you interacted? Or are you / is the restaurant working with?

Why did you / did the restaurant decide to start working with platform XXX?

Is there a possibility to share concerns/complaints with the platform?
(Ask to elaborate on helpdesk interactions)

Are there any downsides to the use of the platform?

Can you see benefits or downsides for the delivery workers of being managed by algorithms?

Do you see current developments related to COVID-19 as a threat or opportunity for you?

And for the platform workers?

Have you ever felt instances where you felt treated in an inhumane way by the platform and clients?
(Ask to elaborate)

What is dignified work in your account?

As a restaurant (manager/owner/worker) do you feel (or is the restaurant) valued by the platform, clients and other societal stakeholders?

Do you have an idea of what type of algorithms platform XXX uses?
(Ask to elaborate if attempts are made to find this out or ask why dot)

What type of decisions and activities does platform XXX automate by means of algorithms / artificial intelligence?
(Ask to elaborate)

If any, which drawbacks does the use of these algorithms by platform XXX pose to you the restaurant?

Moreover, for platform workers (as far as you might know)?

If any, which benefits does the use of these algorithms by platform XXX pose to the restaurant?

Are there any other topics you want to discuss or comments you want to share?

Asking if there are other contacts I could interview
Thanking the interviewee

D. Interview protocol helpdesk worker

**Explanation of goals and purposes research
Asking consent on recording the conversation
Explanation of anonymity results
Takes approximately 1 hour**

What is your age?

Which platform or company do you work for?

Can you explain general task/function at platform XXX?

Is this a side-job or is it your primary occupation?

Have you ever done gig work (via platform XXX) yourself?

What kind of people do you interact with in your function?

Do you have a manager, like a 'human' boss, and are some parts of your job 'algorithmically managed'?

Is this helpdesk for a particular area?

Are you oftentimes able to help people with their problems or concerns?

Are there any examples of times in which you think you are not really able to help clients/partners, but you should be?

Has COVID-19 changed your work, or the work of platform workers, in your opinion?

What kind of questions do you get now from the people calling the help desk?

Is there any kind of workplace monitoring going on?

Do you see ways in which platform workers are steered by algorithms?

Are you also being rated for your performance?

Is there ever acted upon these ratings?

So, did you get any training for this kind of work?

So, do you think that you learned some specific skills while doing this work?

In which ways does this algorithmic management give, in your account, more freedom or less freedom?

In which ways changes algorithmic management, in your account, decision-making processes?

Would your work be different when you did not have a human supervisor?

Are shared problems/concerns often related to the use of algorithmic systems?

Do you think your function is particularly important because of the algorithmic systems that are used?

Are there any other topics you want to discuss or comments you want to share?

Asking if there are other contacts I could interview

Thanking the interviewee

E. Interview protocol middle manager

Explanation of goals and purposes research
Asking consent on recording the conversation
Explanation of anonymity results
Takes approximately 1 hour

What is your age?

Which platform or company do you work for?

Can you explain general task/function at platform/company XXX?

Have you ever done (gig) work (via platform XXX) yourself?

What kind of people do you interact with in your function?

Can you explain what kind of algorithmic system you are using?

Is this system making predictions for you, describing something or prescribing something?

What has changed for you, as a manager, since the use of this system?

Do you understand how the system works?

Do you think it is essential to know how the system works?

Do you have a manager, like a 'human' boss, and/or are some parts of your job 'algorithmically managed'?

Has COVID-19 changed your work, or the work of the workers you manage, in your opinion?

Is there any kind of workplace monitoring going on?

In which ways does this algorithmic system give, in your account, more freedom or less freedom?

In which ways changes algorithmic management, in your account, decision-making processes?

Do you think the introduction of this algorithmic system was positive for your work experience?

Do you think the introduction of this algorithmic system was positive for the workers work experience?

Is there a way to give input for the system?

Do you get many questions / do people share concerns with regard to the system?

Would your work be different when you did not have a human supervisor?

Do you think your function is particularly important because of the algorithmic systems that are used?

Would it be different for the workers if your task was automated as well?
(Do you have an added value to the system?)

Are there any other topics you want to discuss or comments you want to share?

Asking if there are other contacts I could interview
Thanking the interviewee



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