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### In the eye of the beholder

*Ascribing value to work in the digital economy*

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## **1. Introduction**

### **1.1 Introduction**

As the digital economy continues to grow, driven by novel technologies, organisational processes, and business models, a wide variety of new occupations are emerging such as chatbot operators, artificial intelligence (AI) consultants, and app-based food delivery couriers (Hoang et al., 2020). Whether these new occupations were created to ensure the functionality of new digital technologies or emerged in turn to capitalize on them, the interconnections between digital technology and labour has led to fundamental changes in the nature of work and the lived experience of working.

The digital economy has the potential to drive economic development and produce locally relevant and socially beneficial technologies. However, research also suggests that digital technologies can exacerbate existing societal problems. Technological changes in and around the workplace, for instance, have been shown to affect perceived job quality and well-being (Makridis and Han, 2021). Contextualised in the spread of austerity policies and the rise of precarious work (Hardgrove et al., 2015; Rubery et al., 2018), research has demonstrated that not all work in the digital economy is perceived as satisfactory, whether by those in employment, by those seeking employment or by society at large. As a complement to ongoing research into the job quality in the digital economy, this integrated dissertation examines the subjective factors that affect an individual's daily experience of work, such as recognition and respect, labour surveillance and its representation, and overall occupational evaluation.

By critically examining the ways in which humans and artificial intelligence (AI) are co-evolving and the ways in which work is becoming more technical and less human, this thesis aims to provide insights into the challenges and opportunities of this rapidly changing economic landscape. This work is framed as a contribution that speaks to different audiences, primarily sociologists and other social scientists, but also policymakers, business leaders, and the general public, who all have a stake in understanding the implications of AI in the workplace.

Across six distinct chapters, each comprising a self-standing article, I offer methodological, empirical, and theoretical contributions which explore how digital technologies shape and mediate the process of work evaluation. However, I argue that we should not focus on technological concerns alone. It is equally important to remember the humans in the system. Below I will introduce the key issues and themes which frame this dissertation, followed by a discussion of my research approach, a chapter-by-chapter outline, and finally a summary of the main implications of my research.

### **1.2 Recognition and Evaluation at Work**

Current social theory argues that work plays a crucial role in the development of individual subjectivities (Angella, 2016; Dashtipour and Vidaillet, 2017; Dejours, 2007). Employment is not only an important economic issue, providing individuals with necessary financial income, it also acts a source of psychological well-being by offering a sense of purpose, identity, and social status. Individuals evaluate themselves from the imagined perspective of others, feeling pride when they believe they have been perceived favourably and shame when they

believe they have not (Peterie et al., 2019). Recognition is an essential aspect of the human experience in the workplace, where non-recognition or misrecognition can be experienced as harm (Van den Brink and Owen, 2007).

Honneth's theory of recognition posits that individuals' sense of self is shaped by the recognition and acknowledgement of their unique strengths and personal achievements by others (Honneth, 1996: 121). This research is thus situated within parallel discourses surrounding workplace respect and dignity as discussed by scholars such as Hodson (2001), Lamont (2001), and Lucas (2015). The incorporation of psychoanalytic perspectives, specifically Christophe Dejours' (2007) examination of recognition through the emotional and physical experience of work, has greatly improved our understanding of current work experiences. From this perspective, every work situation includes an inherent gap between the given instructions and the actual actions required to complete the task. As work is the application of practical intelligence to bridge this gap, workers require recognition not only for their occupation and role within the organization but also for the specific actions they perform. However, while many workers may strive for recognition and visibility in their work, there are also instances where workers may wish to avoid oversight or obscure the details of their daily tasks. This can be motivated by a desire to retain agency, perform resistance, or to present a specific image to external observers.

In this dissertation, I therefore explore the various forms of recognition that workers in the digital economy solicit and receive, with a specific focus on atypical work settings such as on-demand platforms. This research contributes to the ongoing sociological study of the quality of work by examining the subjective experiences of workers and the social and institutional factors that shape those experiences. Furthermore, I delve into the issue of how organizations communicate and present the labour performed by their workers to clients and customers. Utilizing the concept of invisible work (Daniels, 1987) and Goffman's (1959) theory of the 'frontstage' and 'backstage', I analyse how organizations obscure or highlight the human labour that goes into their services, and indirectly the impact this has on worker recognition.

Societal perceptions of an individual's occupation as a whole can also greatly impact someone's self-esteem and sense of worth (Lamont, 2012; Petriglieri et al., 2019). Cognitive and cultural sociologists define valuation as the mental recipe people use when making judgments about worth, typically studied by observing a rater who uses a set of criteria with particular weight to assess an item's social value (Vaisey, 2009). The implications of occupational labelling and prestige rankings are far-reaching, impacting both individuals and society as a whole. Workers prioritize having a job that they perceive as socially useful and they experience negative effects when they do not. Moreover, previous studies have found that those who perceive their job as useless are more prone to emotional exhaustion. (Dur and Van Lent, 2018). Yet, occupational position and subjective classification systems are ongoing social constructions that are rooted in power struggles, with more disagreement among socially heterogeneous social groups. Groups and individuals face a struggle to contest established and taken-for-granted ways to conceptualize, classify, and order the status of their occupation (Tholen, 2017).

The introduction of technology in the workplace can have a significant impact on how society views the value and prestige of an occupation. The digital economy, in particular, can shape external perceptions of certain jobs, leading to a perceived lower prestige or lower societal value compared to non-digital counterparts. This thesis aims to explore key metrics such as occupational prestige and social value of work in the context of digital

intermediation. Furthermore, it examines how fragmented or temporary employment, commonly found in the digital economy, can lead to social discredit for workers. The low societal perceptions of digital economy occupations may be partly due to the lack of institutionalized legitimacy, as many of these jobs are new in the economic landscape. Additionally, the often remote and obfuscated nature of work in the digital economy can contribute to this perception. According to Tubaro (2021), there is an industry-wide strategy to de-emphasize the human factor in AI production, with corporate communication highlighting the role of technology rather than human contribution. This techno-utopian rhetoric can lead clients to vastly underestimate the amount of labour involved in AI production, particularly in the area of AI verification and validation which is often kept secret. This contributes to corporate sociotechnical imaginaries that construct understandings of how AI services should function effortlessly in order to attract investment, foster innovation, and sell services.

Workers in the digital economy often face identity issues due to a lack of social recognition for their work (Healy et al., 2020; Newlands, 2022a; Phung et al., 2021). Some workers in less prestigious occupations, such as app-based food delivery couriers, want to conceal their occupation from others due to disidentification or perceived career misalignment, even though many workers in these types of occupations have little market power and few alternative job options (Barratt et al., 2020). On-demand work is seen as a short-term solution rather than a long-term career path, as noted by Ashford et al. (2018). Careers provide a means for individuals to construct a narrative of their lives, creating a sense of coherence and continuity in their working identity (Farrugia, 2021). An occupation's reputation, for instance, plays a role in shaping self-selection during recruitment processes, as some individuals choose their occupation based on its prestige or perceived social value (Burke, 2017; Kleinjans et al., 2017).

Young people, in particular, generate imagined futures that are interconnected with their perceived future position in society (Hardgrove et al., 2015). Many young people, for example, choose to work in the digital economy because of its cultural cachet, such as working in social media, fintech, or tech start-ups, as it may be perceived as a stepping stone for future career success (Newlands and Fieseler, 2020; Shigihara, 2018). However, others may choose to work in these new occupations out of necessity, as online freelancing or gig work can offer a source of income for those with few alternative options (Newlands, 2022b; Van Doorn, 2020). Gig work is not a monolithic concept and different workers may have different motivations, characteristics, and intentions. Through this examination, this dissertation will provide valuable insights into the complexities of atypical employment in today's rapidly changing labour market. In today's economy, gig workers need to be able to adapt their work identities to different possibilities, as their careers are no longer monolithic and stable. However, this flexibility may have to be developed consciously, as the lived experience of financial instability and a precarious future can lead to a rigid and defensive identity reaction (Ashford et al., 2018).

### **1.3 Technological Intermediation**

The integration of digital technologies is changing the way work is measured and evaluated, with AI-enabled technologies increasingly leveraged as co-workers, supervisors, and organisational tools. Although there are a variety of embodied workplace robots, most AI applications in the workplace are predominantly disembodied, such as chatbots, workforce management tools, or HR systems. Algorithms are playing a significant role in

automating the management, coordination, and administration of a workforce, referred to as 'algorithmic management' or 'management-by-algorithm' (Jarrahi et al., 2021). Algorithmic systems in the gig economy track worker performance, perform job matching, generate employee rankings, and can even resolve disputes between workers (Wood et al., 2018).

However, the replacement of decision-making functions means that AI applications are often viewed more as social agents than as tools (Jarrahi et al., 2021). With the current implementation of AI applications in the workplace, we are now observing what Shestakofsky (2017) calls 'human-software complementarity' in the human labour that supports algorithms and helps the adaptation to these systems by their users. Since AI systems are continuously produced and reproduced through human actions at work, there is a blurring of boundaries between the human and machinic elements. As the use of algorithmic management systems becomes more prevalent in the workplace, it is important to understand the impact they have on traditional management structures and the labour conditions they create. These systems, which are deeply embedded in pre-existing social, technical, and organizational structures, operate at the intersection of managers, workers, and algorithms. The interaction between human and machine authority regimes, as pointed out by von Krogh (2018), will shape the future of work in both traditional and non-traditional settings. Discourse around algorithmic management often translates into a simplified narrative of algorithmic systems progressively replacing human roles (Jabagi et al., 2019). Yet, by examining the intersection of human and machine authority regimes, I move beyond the simplified narrative of algorithmic systems replacing human roles and understand algorithmic management as a sociotechnical process emerging from the continuous interaction of organizational members and the algorithms that mediate their work.

As technology continues to advance, human labour is at risk of becoming invisible when integrated into technical systems (Newlands, 2021b). Human labour and technological processes are not interchangeable as the increasing implementation of algorithms and automation in the workforce presents a reification of human workers by blurring the lines between computational assets and human workers. Research suggests that the most successful approach is one of complementarity, where the efforts of humans and machines are combined to achieve the best results (Tubaro et al., 2020). The integration of AI in the workplace raises questions about the extent to which work is becoming less human and, as a result, less humane. While the advancement of technology and automation in the workforce has brought about significant changes, it is important to critically examine the human elements that are still present in these high-tech situations. Rather than solely focusing on the technical aspects of how platforms and algorithms evaluate or manage workers, this dissertation takes an organizational and sociological perspective to examine how human individuals, operating within organizational logics and institutional norms, take on the role of evaluators.

Evaluation is not only about the assessment itself, but also about how it is communicated and perceived. The use of digital technology in evaluations can change the nature of the feedback provided. It is thus essential to consider how workers receive and experience interpersonal interactions related to evaluations at work. This includes analysing whether workers receive positive feedback, constructive criticism, motivation, or if they are ignored altogether. Contemporary AI technologies, with their more advanced and nuanced communicative affordances, now offer even more active and socially-oriented forms of communication in comparison to their human counterparts. These technologies not only facilitate, but also automate forms of communication that have traditionally been the exclusive domain of human interactants (Guzman and Lewis, 2020). For example, natural

language processing capabilities allow AI-based technologies to engage in a wider range of social interactions, across a broader spectrum of settings. The advancements in AI have led to new contexts for communication in which individuals not only communicate through technology, but also with technology as if it were a legitimate conversational partner (Guzman, 2018).

Since its inception, the AI community has been focused on creating machines that can mimic human capabilities such as sensory perception, natural language processing, and logical reasoning. However, it is important to recognize that AI systems are not capable of having emotions or feelings in the same way that human minds do. In other words, while machines can perform many tasks, they lack the ability to fully understand the meaning behind those tasks, which is a fundamental aspect of human intelligence. The increasing use of non-human computational agents as communicative partners in workplace settings, such as chatbots or automated push notifications, is becoming a norm in organizational communication. While these agents, enabled by advances in machine-learning and natural-language processing, can engage in reactive or proactive organizational communication, their imposition may lead to workers feeling dehumanized and treated in a mechanistic manner, devoid of the human element in an organizational setting. Thus, investigating how digital communication processes intersect with evaluation processes at work is a crucial topic.

#### **1.4 Research Approach**

In order to grasp the nuances of evaluation and recognition, it is essential to examine the perspectives of workers themselves, as well as those of organizational actors and society at large. By focusing on the micro-level experiences of individual workers, while also considering the meso-level organizational perceptions and macro-level societal perceptions, I aimed to gain a comprehensive understanding of the intersections between these different levels. Through the six substantive chapters of this dissertation, I employed a bricolage of methodologies to explore the complex subject of evaluation and recognition in the workplace.

By combining different methods, it is possible to gain a deeper understanding of the perspectives and experiences of the participants, as well as the broader organizational and societal context. The use of multiple methods allows for a more comprehensive and nuanced understanding of the research topic. However, the use of multiple methods presented challenges in terms of resources and time constraints. Conducting qualitative interviews, surveys, and document analysis simultaneously was demanding. The combination of various methods, such as qualitative interviews, surveys, and document analysis, required a delicate balancing act in terms of data analysis and interpretation. Nevertheless, these studies were conducted with a rigorous methodology and have been written to adhere to the standards of scientific research.

In this dissertation, I have elected to adopt an article-based approach, comprising of six distinct articles that can be read independently or in conjunction with one another. Throughout the research and writing process, I was keenly aware of the various other paths that could have been taken, but were ultimately bypassed for reasons of time, capacity, or access restrictions. In the compilation of these articles, additional published research I conducted during and prior to my doctoral research, were not included due to constraints on space but are cited where relevant. The organization of this dissertation does not follow a linear chronology, as the articles were written concurrently and refined through a process of ongoing revisions informed by my evolving findings and

perspective on the topics of work and organization. The order of presentation is intended to provide a cohesive narrative, weaving together a tapestry of scholarship that has been shaped by valuable feedback from peer review. The articles were revised and re-revised, taking into account the insights gained from studying different aspects of the topic, and the refinement of my research approach. The result is a cohesive and comprehensive examination of the subject, which offers a holistic understanding of the relationship between technology and work.

The overarching framework of this dissertation is centred on the concept of evaluation, specifically how it applies to the relationship between technology and work. The framework is composed of various elements that are interrelated and interconnected. The first element is worker perspectives, which examines how technology is perceived by those who are directly impacted by it. The second element is organizational perspectives, which looks at how technology is utilized by organizations and the emergence of resistance to its use. The third element is societal perspectives, which looks at how occupations in the digital economy are perceived and valued by society as a whole. Together, these elements provide a comprehensive understanding of the topic of evaluation and its relationship with digital technology and work.

In Chapters 2 and 3, I present the results of a qualitative interview study that I conducted with app-based food delivery couriers in Norway and Sweden, who were working for the platform organization Foodora. Each chapter, consisting of a single self-standing published article, draws on the same overall dataset and empirical study, and the full methodological details are provided in the individual chapters. While Chapter 2 presents the findings of all 41 interviews, Chapter 3 uses a slightly smaller subset of 37 interviews, focusing specifically on the migrant worker population. I chose to conduct an empirical qualitative study to engage with workers' own experiences of work and to understand how they felt recognized and evaluated. This approach allows for an in-depth examination of the topic, providing a rich and nuanced understanding of the experiences of these workers.

While Chapters 2 and 3 examine the experiences and perspectives of individual workers at the micro-level, Chapters 4 and 5 take a meso-level approach by examining the organizational perspective of entities utilizing digitally mediated labour. They investigate how these organizations surveil, measure and advertise the human labour they depend on. The research on these topics informs, and is informed by my qualitative empirical study, particularly in Chapter 4, which indirectly draws on findings from interview studies to discuss the algorithmic surveillance of workers in the gig economy. Chapter 5, while conceptual, draws on rich material from a case study of Nordic AI vendors.

The limitations imposed by the pandemic prompted a shift in focus from the organizational level to evaluations on a societal level. This was inspired by the findings in Chapter 3, which revealed the concerns of app-based food delivery workers about how their work was perceived by society as a whole and their feelings that such work was considered low-prestige, despite its value to society. In response, I conducted a quantitative study that aimed to answer one pressing question: To what extent does society on aggregate evaluate app-based food delivery work and workers? I found that there was a lack of existing data on this topic and set out to collect it myself. However, in order to fully understand the evaluation of one occupation, it was necessary to also consider how it was situated against other occupations. Therefore, I aimed to provide data on perceived occupational prestige and perceived occupational social value for a comprehensive and robust list of occupations, including those in the digital economy.

With the collaboration of Dr. Christoph Lutz, we embarked on a series of surveys to refine and validate an occupation list that could be used in other occupation-level research. The final list, consisting of 580 occupation titles including 76 digital economy titles, is aligned with the most recent International Standard Classification of Occupations (ISCO-08) and tailored to a UK audience with titles in British English but can be adapted to other languages. Additionally, we conducted a qualitative essay study with 100 UK respondents to assess their understanding of the concepts of 'prestige' and 'social value'. Though the results of this qualitative study are not included in this dissertation due to space constraints, it informed our understanding of the study as a whole, specifically by demonstrating that respondents generally understand the two concepts to be distinct. Finally, we conducted two separate studies, each with over 1200 representative survey respondents in the UK, where we asked respondents to rate occupations on either occupational prestige or occupational social value, and also collected demographic and attitudinal data to determine if there were significant differences in how individuals rated.

This dissertation takes a multi-disciplinary approach, drawing from a variety of perspectives, theories and contributions. The worker perspective is examined through the lens of sociology and labour studies, while the organizational perspective is examined through the lens of management, organizational research, and critical data studies. The societal perspective is examined through the lens of the sociology of work. This dissertation reflects my own position as an organizational sociologist, and it is a multi-disciplinary combination of research, with each chapter catering to a distinct audience with slightly different disciplinary foci. For example, Chapter 2, entitled "Anthropotropism: Searching for recognition in the Scandinavian gig economy," was written from a core sociological perspective, while also drawing on the emerging field of human-machine communication. Chapter 3, "This isn't forever for me': Perceived employability and migrant gig work in Norway and Sweden," is more tailored for an audience in economic geography. Chapter 4, "Algorithmic surveillance in the gig economy: The organization of work through Lefebvrian conceived space," was written for organizational research. Chapter 5, "Lifting the curtain: Strategic visibility of human labour in AI-as-a-Service," is intended for an interdisciplinary audience between critical data studies, communication, and sociology more broadly. Chapter 6, "Occupational prestige and occupational social value in the United Kingdom: New indices for the modern British economy," and Chapter 7, "Mapping the prestige and social value of occupations in the digital economy," were written for an audience in the sociology of work. These diverse approaches are natural complements, given the overlap of the disciplines themselves, and I argue that they demonstrate the value of taking multiple lenses for one question.

Throughout the composition of this dissertation, I have been mindful of my own reflexivity and positionality. My personal interest lies in the ways in which modern technologies are impacting work interactions, and while at times my perspective may appear to be one of techno-pessimism, I would argue that it is more accurately described as techno-realism. I am fascinated by the practical applications and real-world consequences of these technologies. As a techno-realist, I have also adopted a critical stance towards corporate narratives surrounding the operation of these technologies, as well as a general critical stance.

Throughout the course of my research, I have also remained mindful of my own positionality as an observer, carefully analysing the experiences and perspectives of my research participants. I have been able to maintain a critical stance towards the corporate narratives surrounding the implementation of modern technologies in the workplace. My primary focus has been to conduct rigorous research and present my findings to an academic



audience, while also acknowledging the real-world implications of my work. Additionally, as a British researcher based in Norway, my perspective has been informed by my geographic location and the unique context it provides.

## 1.5 Chapter-by-Chapter Outline

### *Chapter 2*

Chapter 2, '*Anthropotropism: Searching for Recognition in the Scandinavian Gig Economy*', delves into the question of not only being understood and observed at work, but also being communicated with in a way that shows that one is valued as a human being. Since recognition must be expressed communicatively, this chapter engages with communicative demonstrations of recognition and the evaluation of one's work performance. Here, I draw on 41 interviews with app-based food delivery workers in Norway and Sweden and utilize a sociological approach to understand how workers seek recognition from other human organizational members in, through, and despite the technological intermediation imposed upon them. This chapter goes beyond current discourses around the use of algorithmic and automated forms of management in the gig economy to re-centre the human elements at play. It also has a distinct contribution for organizations who utilize such intermediated communication structures since the findings strongly advocate for the need for a human-centric approach to organizational communication. Theoretically, this chapter contributes to scholarship by building on Axel Honneth's theory of recognition to raise the question of whether it is possible to feel recognition from or via a technological agent.

In this chapter, I develop the theoretical concept of anthropotropism, or the turning-towards-the-human. It is a concept that sheds light on the way individuals interact in a highly technical mediated workplace. This theoretical contribution posits that individuals try to bypass technological intermediaries to reach a human communicative partner, in order to pursue traditional social scripts of collegiality. One of the key insights of this theoretical contribution is that even in environments where technology is heavily integrated, people still have a strong desire to connect with one another on a human level. This is perhaps because traditional forms of social interaction, such as face-to-face communication and nonverbal cues, are deeply ingrained in our social norms and expectations.

Chapter 2 is adapted from the published article: Newlands G (2022) Anthropotropism: Searching for recognition in the Scandinavian gig economy. *Sociology* 56(5): 821-838.

### *Chapter 3*

In Chapter 3, '*This isn't Forever for me': Perceived Employability and Migrant Gig work in Norway and Sweden*', I delve into a specific subset of the qualitative dataset presented in Chapter 2, focusing on the perspectives of migrant app-based food delivery couriers. Through this examination, I aim to uncover how these individuals evaluate their work and how they perceive it as impacting their long-term employability within the local labour market. This chapter presents an empirical contribution to the field by providing findings from a qualitative study of migrant workers in Norway and Sweden. This is a particularly relevant topic of inquiry as there have been ongoing discussions about the high standards of work in Scandinavia in comparison to other countries. This

research illustrates that even in nations where working conditions are relatively favourable in terms of compensation and contractual status, there remain significant concerns regarding the evaluation of work.

The contextual situation within countries with relatively high working conditions can reveal the comparatively low standards experienced by migrant workers in the gig economy. This chapter examines the experiences of migrant workers in app-based food delivery and finds that their work can be detrimental to their sense of self-identity and future career prospects. This article offers a critique to the idea that gig economy work can be seen as an entry-point to a local labour market or an overall career. As a theoretical contribution, the chapter speaks to an ongoing discussion about perceived employability. While previous research in this field has examined factors that contribute to one's perceived employability, this chapter highlights the importance of considering occupational position.

Chapter 3 is adapted from the published article: Newlands G (2022) 'This isn't forever for me': Perceived employability and migrant gig work in Norway and Sweden. *Environment and Planning A: Economy and Space*. Epub ahead of print 4 March 2022.

#### **Chapter 4**

In Chapter 4, '*Algorithmic Surveillance in the Gig Economy: The Organization of Work Through Lefebvrian Conceived Space*', I examine the challenges that organizations face in gaining an accurate understanding of the realities of digitally mediated work, specifically focusing on work conducted remotely and dynamically. I highlight the limitations of algorithmic surveillance in the gig economy and how the gap between digital-based and human-based surveillance creates opportunities for workers to resist control and reclaim the spaces of production. This chapter highlights the need for organizations to have a comprehensive understanding of the nuances of digitally mediated work in order to effectively manage and support their workers.

The chapter makes a theoretical contribution by applying Henri Lefebvre's concept of space to the digital cartography used by platform-mediated organizations. Additionally, the chapter advances organizational research on workplace surveillance in situations where the observer and decision-maker is a non-human agent. This is a significant contribution as organizational literature has yet to fully examine the implications of delegating surveillance and management tasks to algorithms and how it renders platform organizations heavily dependent on the reliability of the algorithms, captured data and the correspondence between the data and the material reality of the work.

Chapter 4 is adapted from the published article: Newlands G (2021) Algorithmic surveillance in the gig economy: The organization of work through Lefebvrian conceived space. *Organization Studies* 42(5): 719–737.

## **Chapter 5**

In Chapter 5, *'Lifting the Curtain: Strategic Visibility of Human Labour in AI-as-a-Service'*, I examine the question of valuing human labour by exploring how organizations conceal the human labour involved in the creation of AI services, particularly from external stakeholders. The chapter sheds light on how organizations may choose to highlight or obscure the human involvement in AI services depending on business needs. The chapter utilizes Nordic AI vendors as a novel set of cases for discussion and analysis in the academic literature, and its findings are particularly relevant for organizations as it highlights the importance of recognizing and valuing the human labour essential to their business. As the field of AI services continues to grow, this chapter can assist in ensuring that the labour of workers in AI production is acknowledged and not rendered invisible.

As discussions about the potential replacement of human workers with AI continue, it is essential to remember that AI is impossible without the work of human workers in the background. This chapter builds on Goffman's discourse about how organizations conceal processes and information in the "backstage" while performing impression management to present an idealized image on the "frontstage." The chapter argues that vendors often obscure the human labour involved in data preparation, validation, or impersonation, contributing to technoutopian narratives of AI hype. However, when vendors must work closely with clients to produce the AI service, such as through localized AI training, they are forced to "lift the curtain," resulting in a paradoxical situation of needing to both perpetuate dominant AI hype narratives and highlight AI's limitations.

Chapter 5 is adapted from the published article: Newlands G (2021) Lifting the curtain: Strategic visibility of human labour in AI-as-a-Service. *Big Data & Society* 8(1): 1–14.

## **Chapter 6**

In Chapter 6, *'Occupational Prestige and Occupational Social Value in the United Kingdom: New Indices for the Modern British Economy'*, I adopt a macro-level societal approach and examine how society as a whole evaluates occupations in terms of both social value and prestige. This chapter makes a theoretical contribution by demonstrating that individuals evaluate social value and prestige as distinct concepts and that occupations vary in socially understandable ways on both metrics. It also offers a robust empirical contribution by providing a validated occupation list, which was evaluated by over 2400 respondents, and a methodological contribution by providing a useful and replicable mechanism to evaluate occupations on various metrics. While collecting data in a Scandinavian context would have been a fitting conclusion to the dissertation, the decision to conduct initial data collection in the UK was made for pragmatic research reasons. Future replication in other contexts and with a subset of the occupation list will be undertaken in the coming years.

This chapter is important for workers, as it allows them to reflect on the perceived prestige and social value of their occupation, and can motivate them to take action to re-negotiate societal perceptions. Additionally, this chapter can also be helpful for individuals in low-prestige occupations, as it shows the perceived social value of their work, which can help ameliorate a sense of low prestige. It is also significant for policy makers, as it highlights occupations that may be considered low in terms of social value and/or prestige, and thus, can be used

as a basis for reframing these occupations and improving overall perceptions to promote economic sustainability and growth.

Chapter 6 is adapted from the unpublished article: Newlands G and Lutz C (2023) Occupational Prestige and Occupational Social Value in the United Kingdom: New Indices for the Modern British Economy. *Manuscript Under Review*.

## **Chapter 7**

In Chapter 7, ‘*Mapping the Prestige and Social Value of Occupations in the Digital Economy*’, I delve deeper into the 76 digital economy occupations included within the 580 occupations discussed in Chapter 6, and provide a societal perspective on how these occupations are evaluated. This chapter includes occupations that were previously analysed in other chapters, such as food-delivery couriers, chatbot operators, and AI trainers, and creates a balance by providing a more macro-level perspective to complement the other chapters. For example, the findings of Chapter 3, which showed that gig workers perceived their work as low-prestige, were supported by this chapter, albeit in a different societal context. Additionally, this chapter builds on Chapter 6 by examining how different demographic profiles and attitudinal factors shape how people evaluate these occupations. A key finding is that migrant and ethnic minority respondents rate digital economy occupations as more prestigious, and younger respondents also evaluate these occupations more favourably. This research is significant because new emerging occupations are targeting migrant and younger workers, and policy makers are encouraging workers to retrain for more digital occupations. Without further research on occupational evaluation, inequalities can become further entrenched due to occupational segregation.

Chapter 7 is adapted from the unpublished article: Newlands G and Lutz C (2023) Mapping the Prestige and Social Value of Occupations in the Digital Economy. *Manuscript Under Review*.

## **1.6 Summary**

In conclusion, this dissertation has provided an in-depth examination of the evaluation of work in the digital economy. The findings of this dissertation can help inform workers, organizations, and policy makers in understanding the complexities of the modern digital economy and the ways in which it impacts employability, surveillance and occupational evaluation. By highlighting the need to consider worker perspectives, organisational perspectives, and societal perspectives in any discussion on the evaluation of work in the digital economy, this research aims to provide a more holistic and nuanced understanding of the topic, which is vital for ensuring the well-being and dignity of workers in the digital age. Overall, this research provides valuable insights into the complex dynamics of evaluation and recognition in the age of intelligent technologies.

Through a combination of qualitative and quantitative methods, I found that workers in the digital economy feel that their work can be detrimental to their sense of self-identity and future career prospects. Additionally, organizations utilizing digitally mediated labour struggle to garner a "correct" understanding of the actualities of work when it is digitally mediated. The study also found that there are limitations in what organizations can understand about workers' labour activities. Moreover, the research provided new indices of occupational prestige and occupational social value for 580 occupations, and highlighted the factors that shape how society and individuals evaluate digital economy occupations.

Through a nuanced examination of worker perspectives, I have underscored the need for more accurate assessments of labour and higher evaluations of occupations, which ultimately may benefit both remuneration and working conditions. It is crucial to listen to the voices of workers and understand their unique needs and demands, as they are not a homogeneous group. Striving to find a balance between the needs of workers and organizations is vital for ensuring the long-term sustainability of job-creating organizations and the quality of jobs they offer. Furthermore, this dissertation has revealed that technological intermediation does not inherently improve the experience of work, and may even exacerbate its problems. The mere presence of a digital component in certain working situations does not signify that workers feel their work is taken seriously or that they are fully integrated into the technological ecosystem.

From an organisational perspective, this research has shown that organisations in the digital economy do not necessarily want to generate intensive insights into accurate working conditions of their workers, particularly on issues that are not related to direct labour processes. Indeed, I showed that organisations are generating such insights with technological mediation through creating digital avatars of the workers and digital recreations of the space. However, technological intermediation does not necessarily improve the organisation's interests as it can reduce the amount of useful information they have to work with. As the integration of technology into organizational processes increases, the tendency for workers to be subjected to inhumane treatment also escalates. Organizations serve as intermediaries between employees and external stakeholders, occupying a crucial role in determining the visibility of the work being performed. It is imperative to acknowledge that the human aspect of labour should not be overlooked or disregarded for the sake of organizational convenience, as this is a central theme of this dissertation.

The findings of this dissertation have significant implications for society as a whole, particularly in terms of how we understand and value the roles and contributions of workers in the digital economy. One key implication is that society should be aware of the negative impact that gig economy work can have on individuals' sense of self-identity and future career prospects, particularly for migrant workers. This highlights the need for a more nuanced understanding of the complexities of gig economy work, and the ways in which it can both benefit and harm workers. As I have demonstrated in the third section of this dissertation, societal actors play a crucial role in shaping and evaluating work within the digital economy. The emergence of certain digital economy occupations, such as gig work, is often driven by social demand. However, it is important to note that not all of these new occupations are necessarily viewed as socially valuable. Therefore, it is essential to investigate how the specific social or individual context can dynamically influence the perception and value placed on work.

Additionally, the findings of this dissertation demonstrate that societal evaluations of occupations, particularly digital economy occupations, are affected by demographic and attitudinal factors. This has important implications for how we understand and value the contributions of different groups of workers. For example, the research found that migrant and ethnic minority respondents rate digital economy occupations as more prestigious, and younger respondents also evaluate these occupations more favourably. This suggests that certain groups of workers may be more likely to pursue and succeed in these occupations, and highlights the need for policies and programs that support and empower underrepresented groups to access these opportunities.

In this dissertation, I have delved into the interconnectedness of various elements that shape the modern workplace. Through an examination of worker and organizational perspectives, I have investigated the intersection of techno-centric control and resistance, as well as the ongoing battle between human and automated forms of communication within organizations. I have aimed to uncover the complex interplay between these factors and their impact on the current state of work. I have also delved into the intricate relationship between worker and societal perspectives, examining how societal evaluations influence the self-evaluation of workers. Additionally, I have examined the close interplay between organizational and societal perspectives, recognizing that organizations operating within the digital economy are inextricably bound to societal pressures, norms, and expectations surrounding new digital technologies.

Overall, this dissertation makes important contributions to academic theory in providing new insights into how the digital economy impacts workers and society, and how society evaluates digital economy occupations.

## 1.7 References

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