

The Work of App Work: An Institutional Ethnography of Digital Platform Care Work

by

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Author's Declaration

This thesis consists of material all of which I authored or co-authored: see Statement of Contributions included in the thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Statement of Contributions

This thesis consists in part of three manuscripts that have been published or are under review.

Exceptions to sole authorship:

Chapter 3: Hopwood, P., MacEachen, E., Bourgeault, I., McAiney, C., Yanar, B., and Davis, A. On-demand and marketplace platforms: Gig care work conditions on two digital platform care models. *Critical Sociology*, Online first. <https://doi.org/10.1177/08969205241279868>

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Chapter 5: Hopwood, P., MacEachen, E., Bourgeault, I., McAiney, C., Yanar, B., and Davis, A. “I never thought about it”: Social trust in private home care through persuasion on digital platforms.

As lead author of these three chapters, I was responsible for conceptualizing the study design, data collection, data analysis, and drafting and submitting manuscripts. My co-authors provided guidance during each step of the research and provided feedback on draft manuscripts.

Under Dr. MacEachen’s supervision, I also prepared the remaining chapters in this thesis, which were not written for publication.

Abstract

Precarious work is becoming more common globally and the healthcare sector in Ontario, Canada is no exception. Aspects of precarious work such as low wages and job uncertainty have negative influences on work quality. Digital platforms (DPs) introduce the threat of gig work as a form of precarious work. With the growth of precarious gig work and its expansion into healthcare, it is important to understand how platform technology shapes actual work practices and the work-related protections for workers. This dissertation focuses on unregulated personal support workers (PSWs) who use DPs to find work. Specifically, there are two aims of this research: first is to examine the precarious work experiences of women PSWs who seek eldercare work via a DP model in order to understand socio-technical implications of DP; second is to examine the work-related protections that apply to digital platform care workers and how these shape work conditions.

Using Institutional Ethnography as a guiding methodology, in 2023 and 2024 in Ontario I conducted semi-structured interviews with 20 PSWs who used DPs to find gig care work; I also interviewed 10 key informants who were in various positions of expertise about gig care work platforms. This included end-users of DPs such as clients and companies. Additionally, I observed workers demonstrating their use of DPs and examined screen shots from DPs.

These PSWs face precarious work conditions, with precarity deepened by the technology of DPs. In the three papers comprising this thesis, I cover socio-technical elements of the DP model of care and portray how this form of work makes both workers and clients vulnerable. In the first manuscript, I describe two different models of gig care work platform, (marketplace and on-demand platforms) and explicate how each model is found in a separate sector of healthcare: marketplace models are found only in homecare, and on-demand models are found exclusively in long-term care and hospital organisations hiring workers. In the second manuscript, I describe the risk to hospital and LTC organisations in hiring gig care workers. In the third manuscript, I explore trust as I write about how homecare workers using DPs experience this work and how a couple of clients experience hiring workers.

This thesis allowed me to closely examine how platform technology shaped the actual practices of women using DPs and their work circumstances. The primary contribution of this dissertation is revealing day-to-day experiences of gig care workers, filling a gap in the literature on location-based care platforms. The findings of this thesis underscore that DPs increase precarity for already-

precarious PSWs. I demonstrate that instead of being neutral technology, DPs introduce a governing text of entrepreneurial self-employment which involves risk for the workers and clients using DPs. Organisations may not have opportunity to properly vet staff, train staff, or insure staff. Private clients gain access to more services when they use DPs, but then they shoulder all the risk when something goes wrong. Overall the DP form of gig care threatens growing precarious work, dodges social security and employment protections, and undermines publicly-provided care employment in Ontario, Canada.

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Dedication

To my daughter Katie,

May you find your passion and pursue that as I have had the privilege of doing.

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List of Abbreviations

DP/DLP	Digital Platform(s) or Digital Labour Platform(s) including apps and websites
IE	Institutional Ethnography/Ethnographies
LTC	Long Term Care
PSW	Personal Support Worker

Chapter 1

Introduction

Introduction

Low wages, insecure hours and Digital Platform (DP) work with its lack of employment protections add up to an uncertain living with negative health repercussions for gig care workers. In this dissertation I focus on non-professionalised front line care workers (hereafter, personal support workers¹ or PSWs); PSWs provide personal care to clients living in their own homes and also work in hospital or LTC providing personal care (Afzal et al., 2018). Personal Support Workers (PSWs) experience precarious work conditions that adversely impact their health including low wages, workplace violence and harassment, workplace injury, and insecure hours (Baron et al., 2022; Quinlan et al., 2015; Zagrodney et al., 2022a, 2022b; Zagrodney & Saks, 2017). When this precarious work is performed via a DP model, I show through this thesis that it becomes even more precarious as employment and social protections are lost and DPs have more power than workers. Little is known about the work conditions for DP care workers. This thesis focuses on the work of unregulated PSWs who are self-employed and use DPs to find work.

The aim of this dissertation is two-fold: first, to examine the precarious work experiences of women PSWs who seek eldercare work via a DP model; second, to investigate the work-related programs that apply to digital platform care work and how these shape work conditions. This study considers unregulated care workers who work in any setting – home care, hospital or Long-Term Care (LTC). Understanding these women's precarious work experiences is important given the growth of DP work.

Literature Review

The literature review consists of an introductory section identifying the importance of understanding precarious work in today's labour market. The next section is about how work as a social determinant of health emerged historically, largely organised chronologically. I follow this with a section covering definitions of precarious work as a determinant of health. I then move to a review of the literature about the case of personal care work as DP work and a section detailing specific precarious

¹ I use the term personal support worker to refer to credentialed and uncredentialed personal care workers. The workers lack a professional designation unlike many health para-professionals and may also be referred to by other terms such as home care worker, home support worker, health care aide or resident assistant.

conditions experienced by DP care workers as found in literature. I then conclude with a brief section on literature about elder care PSW work that is not DP work.

Precarious work is growing in Canada and worldwide with adverse health consequences for workers (Benach et al., 2014; Duijs et al., 2023; Ervin et al., 2025; Irvine & Rose, 2024; Muntaner, 2018; Pinto et al., 2022), making it important to understand how workers' health is impacted by precarious work conditions. Precariously employed workers experience mental stress including depression, burnout, and are exposed to health hazards such as lack of health benefits, disability insurance, and paid sick days (Duijs et al., 2023; Pinto et al., 2022). One type of precarious work in healthcare is temporary work. In Canada, healthcare and social services temporary workers were estimated to be around 11% of the workforce in 2024 with approximately 12,100 more temporary workers than there were in 2020 (Statistics Canada, 2024). Another type of precarious work is DP work. In 2023, almost 500,000 Canadians undertook some form of DP work, whereby they worked via, and were paid via, an internet platform or an app (Hardy, 2024). It is unknown how many workers are DP workers in healthcare; however, the healthcare industry is trending towards growth in temporary work based on the above statistics, while DP work overall is also increasing across Canada. With the increase in the temporary and DP categories of precarious work, it is important to understand how workers in precarious care work experience their jobs.

Recognition of work as a determinant of health

In this section of the literature review I describe work as a system-level determinant of health. Recognition of work as a factor in health has evolved from 19th and early 20th Century conceptualizations that considered proximal work environment factors contributing to individuals' health outcomes such as dangerous machinery to recognition of work as a factor of health with system-level impacts (Sirrs, 2016). A World Health Organisation report by the Commission on Social Determinants of Health states that work is a key factor in health and relates to **system-level factors** that often impact larger populations' health:

“When [employment and working conditions are good, they can provide financial security, social status, personal development, social relations and self-esteem, and protection from physical and psychosocial hazards” (Marmot et al., 2008, p. 5).

Conversely, when working conditions are not good, they can have multiple ill effects on the population. For example, a 1960s longitudinal study following public-service workers in the UK (the

Whitehall Study) led to findings that coronary heart disease was higher among male workers with “lower employment grade” than among those whose jobs were considered of a higher grade (Marmot et al., 1997). The original Whitehall study also led to eventual evidence that the quality of work was associated with death from all causes, including death from non-coronary heart disease causes (Marmot & Brunner, 2005). Following the first Whitehall study, the 1980s Whitehall II study directly aimed “...to investigate social and occupational influences on health and illness” (Marmot & Brunner, 2005, p. 251). The Whitehall II study particularly has contributed to literature on the impact of occupational conditions on health. For instance, one study revealed that people becoming sick in particular buildings was not due to the physical structure; rather, the psychosocial work conditions contributed to people’s illnesses (Marmot et al., 2006).

While the first Whitehall study was being analysed in the UK, in Canada the Lalonde report (1974) came out, which made a fundamental difference to the biomedical model of health, and laid the foundation for what is today known as population health (Glouberman & Millar, 2003). Lalonde describes the limitations of a traditional view of the field of health as comprised of only biological determinants and the medical system, and presents a “health field concept” that also includes environmental and lifestyle determinants of health (Lalonde, 1974). A tenet of the document is prevention of ill health. Lalonde’s report introduces working conditions as an environmental factor early in the document, describing the physical and psychosocial impact of working conditions and the cost of workplace injury: “Working conditions, including the deadening effect of repetitive production line tasks on the human spirit, take their toll in terms of physical and mental illness. Workmen’s Compensation Benefits alone cost 400 million dollars yearly” (Lalonde, 1974, p. 17).

From earlier papers including the Whitehall studies and the Lalonde report, the idea of work as a social determinant of health grew to become more widely understood and utilised: in the 2000s, research based on big data sets began to consider work conditions beyond a single employer to more population-based determinants of health related to work (Frank et al., 2023). Historically, work and health relationships were often studied based on males in traditional forms of employment (Benach et al., 2014). For instance, the first Whitehall study was based exclusively on men working in public service; however, the second Whitehall study beginning in the 1980s included approximately one-third women and explicitly intended to examine the social gradient of health including the impact of occupation (Marmot & Brunner, 2005). The social gradient of health reflects that people’s health is affected by social factors and those who have better income, occupation, education and social status

consistently fare better in terms of health outcomes. Women are now more often included in studies and newer evidence shows they may even be impacted more strongly by negative work conditions than men (Clougherty et al., 2010).

Frank et al. (2023) recently created a conceptual model of aspects of work that are determinants of health in high income countries. In their conceptual framework they identified multiple levels wherein work-related factors impact health, ranging from high-level or upstream factors like politics and policies, the economy, climate change and technology, to more mid-level employment conditions like precarious work (e.g., self-employed and freelance workers), and more proximate level factors such as physical, chemical and psychosocial working conditions (Frank et al., 2023). Among the several work-related determinants of health covered by the model, six were identified as highly relevant for present and future: the impact of technology; the intersectional considerations of gender, age, race, ethnicity, and social class as they interact with work and health; international migrant workers; an increase in precarious employment; long or irregular work hours; and climate change as it interacts with work (Frank et al., 2023). This dissertation focuses on how a specific worker population is impacted by technology and precarious work; the sample is also female, disproportionately racial and ethnic minorities, and international migrant workers.

Precarious work and health

Definitions of precarious work are not universally agreed upon. A systematic review found that definitions of precarious employment frequently have three overarching aspects: insecure employment (e.g., temporary contract), inadequate income (low income), and a lack of rights (e.g., lack of workplace rights) (Kreshpaj et al., 2020). A glossary of terminology about precarious employment enhances the definition, specifying that:

“...[precarious employment] broadly encompasses one or more of the following dimensions: employment insecurity, limited workplace rights and social protection (and powerlessness to exercise legally granted workplace rights), individualised bargaining relations between workers and employers, and income inadequacy (low wages and economic deprivation)” (Ervin et al., 2025, p. 3)

Precarious work is described as a “multi-dimensional construct” (Benach et al., 2014). I include in this construct the above dimensions from Ervin et al. (2025), namely: insecure work, limited rights and social protections, lack of collective agreements or union support, and low income.

Precarious work has health consequences for workers. I take a broad definition of health, considering both physical and mental health as potentially affected by work as a social determinant of health. I also consider that work circumstances (such as protective programs like employment insurance or workers' compensation) may contribute to the overall health impacts of work. Studies in Canada and internationally have linked precarious work with lost time injuries, higher stress, poor mental health and suicidal ideation ((Escudero-Castillo et al., 2023; Han et al., 2017; Mullany et al., 2021; Shahidi et al., 2024; Thern et al., 2023). A systematic review of the literature about precarious employment and the effects on mental health in Western economies describes the quantitative literature showing negative health effects of precarious work as “plentiful” (Irvine & Rose, 2024); however, Irvine & Rose (2024) state more qualitative research considering theoretical models is necessary to understand the issues that underlie precarious work.

National and state-level context is also important for understanding the health effects of precarious work. For example, studies across European countries have illustrated the role of welfare regime as a factor related to precarious workers' health, with workers in Scandinavian countries faring better than workers in countries with less welfare protection and social security system support (Hillier-Brown et al., 2019; McCartney et al., 2018; Pförtner, 2022). Due to the influences of welfare regime, as well as labour regulations including occupational health and safety (OHS) policies and public health policies, a holistic understanding of the multiple social, economic and political factors that influence precarious workers' health is important for research about the health effects of precarious work (Pförtner, 2022).

Precarious work includes temporary work. Temporary work is work that is not guaranteed beyond a day-to-day basis, with a temporary employment agency acting as the employer of record and the work being done at a client employer. Temporary workers with job insecurity are more likely to be engaged in high-strain work (Waenerlund et al., 2011). Temporary Employment Agencies (TEAs) provide their client companies with workers, without the company (the actual worksite/workplace) having to hire the worker – which has been described as a “triangular” relationship with the TEA placing workers into workplaces (Lippel et al., 2011). TEA workers have a higher risk of job dissatisfaction, musculoskeletal issues, and worse general health than other workers (Thomson & Hünefeld, 2021). TEA work may vary with seasonal or other market-driven demand factors (Bohle et al., 2004). Such uncertainty, including less notice about shifts starting, ending (unpredictable), or sometimes being split across many hours, negatively impacted workers' sleep, exercise and led to

tiredness and issues with family and other social relationships (Bohle et al., 2004). In the context of more widespread deregulation, OHS protections have been reduced by policy and failure to enforce or hold responsible parties accountable (Sirrs, 2016). In TEA work, there are challenges which render it difficult to enforce OHS regulation (Johnstone & Quinlan, 2006; Lippel et al., 2011). For instance, agencies are legally responsible for TEA workers' compensation [i.e., Ontario, Canada] and yet they have limited ability to change the OHS conditions at the job site; and further, they pay for occupational injury/illness but have no real role in return to work since they are not the workplace (MacEachen et al., 2012). Thus, workplaces that hire labour through TEAs may get off without financial consequences of workplace injury claims and this makes it attractive for them to hire TEA workers for dangerous jobs or "outsourcing risk" (MacEachen et al., 2012). TEA workers may be placed in riskier positions than permanent employees in the same workplace and be less likely to report occupational injury or illness due to job and income insecurity (Lippel et al., 2011; MacEachen et al., 2012). Overall, these issues are very concerning given that TEA workers are more likely than permanent employees to have occupational illness or injury (Al-Tarawneh et al., 2020; Smith et al., 2010). Wherein workplace OHS training is an important protection against workplace injury, TEA workers frequently have less OHS training than permanent employees (Benach et al., 2014; Lippel et al., 2011). For instance, in the specific occupational example of TEA homecare workers, there is less OHS training than for permanent employees (Cloutier et al., 2008; Quinlan et al., 2015). There are several similarities between TEA work and DP work; namely, the lack of guaranteed work, and showing up to workplaces new or unfamiliar to the worker. TEA however offer workers protections under the Employment Standards Act such as minimum wage, and provide workers' compensation insurance coverage.

One type of temporary precarious work is platform-based work. This work is precarious in that it is insecure and there are inadequate rights for platform workers – largely due to the lack of an employer-employee relationship (Bajwa et al., 2018). Additionally, there are health risks associated with platform models of work (Bajwa et al., 2018). Risks associated with platform work are described in subsequent sections.

Characteristics of digital platforms

In the general area of DP work, there are two sub-types of DP business model: on-demand and marketplace (Ticona et al., 2018); however, literature does not always compare or distinguish

between these two categories. On-demand DPs include those such as Uber and Lyft where a worker is automatically assigned to a client or job; whereas on marketplace DPs such as care.com, the workers and customers read profiles or job ads and make decisions about an exchange of fees for service (Ticona et al., 2018). Some issues, such as surge pricing – which affects worker income based on demand – are known to come into play for on-demand work on platforms like Uber (Chen & Sheldon, 2016; Guda & Subramanian, 2019).

In addition to on-demand and marketplace business models of platforms, platforms can be categorised by the location of workers: there are platforms that operate using freelancers who work remotely (cloud work, such as Fiver or Amazon Mechanical Turk), and platforms that operate using workers who work on location (such as every food delivery or care service platform) (Vallas, 2019). Among these various types of platforms, there are shared occupational hazards. A literature review about occupational conditions for gig workers found that being (mis)classified as independent contractors (Bajwa et al., 2018) itself is a key hazard for gig economy workers compared to traditional employees (Taylor et al., 2023) because it precludes workers from enjoying protections afforded to employees. Another risk is the lack of labour protections and the feasibility of organising unions given the dispersed geography and isolated nature of gig work (De Stefano, 2015), although gig workers in select industries have become unionized in various locations around the world (Johnston & Land-Kazlauskas, 2018).

Research has tended to look at various types of platforms together when it comes to a general focus on common occupational hazards for gig workers. An advantage of research considering both on-location and cloud work platforms together and often not distinguishing between marketplace and on-demand platforms is the opportunity to discover patterns across different types of DP work and consider occupational health implications for workers, such as low-barrier entry but high-pressure competition (Pulignano et al., 2024). Algorithmic management is a further issue that straddles multiple types of DP work (Parent-Rochelleau & Parker, 2022; Ticona et al., 2018). Algorithmic management occurs when a computer algorithm (series of coded rules and processes) manage some elements of work, such as assigning workers duties (Parent-Rochelleau & Parker, 2022; Stark & Pais, 2020).

Looking at different platform types separately can also give us new information; some issues seem to warrant distinction between cloud work which can be global, and on-location work which is more

localized. For example, this thesis takes among its concerns the employment status and work protections for on-location workers; issues for which eligibility is often tied to the socio-legal environment of the jurisdiction in which work takes place. Yet protections lost in the precarious work of DPs – such as workers’ compensation, employment insurance, employment standards such as minimum wage, and sick days – are lost for DP jobs in platform capitalism generally regardless of it being cloud work or on location work (Vallas, 2019). One issue that is relevant for on-location workers - which is more applicable to DP care workers than cloud work is - is the danger inherent in the physical work itself. In this form of gig work where customers meet workers face to face (Vallas, 2019), issues may arise such as physical violence or verbal aggression or conflict with customers (Gillis et al., 2022; Ladegaard et al., 2022). A scoping review about health risks for platform workers found that among health-related risk for on-location workers are: traffic-related hazards, COVID-19 exposure, injuries caused by work, musculoskeletal pain, and other physical and mental health hazards (Margerison et al., 2025). Another health-related risk for on-location gig workers internationally is having to work for multiple platforms or more than one gig company and working longer days due to high commissions and low income (Koivusalo et al., 2024). Other risks to workers include verbal abuse, sexual harassment, and the threat of deactivation (Ladegaard et al., 2022, p. 774). Financial pressures may also push on-demand, on-location drivers to take health risks such as speeding in order to compensate for low pay (Tran et al., 2022).

The case of PSWs and Digital Platforms

People’s work *contributes to* individual health and to population health, but the work people do is also *influenced by* social determinants of health such as privilege in skills or education, ability, or class that shape opportunity for - or selection into - specific jobs (Ahonen et al., 2018; Wipfli et al., 2021). Therefore, it is necessary to consider how different groups may experience the health effects of their work. Front line care work is a prime example of the dual directionality of the relationship between work and health. PSWs are a sector of the workforce that is disproportionately migrant and ethnic or racial minority women (Williams, 2018). This is a global truism with implications from economic, political and social standpoints (Williams, 2018). This dissertation does not attempt to detail the massive intersectional issues that arise from low-wage care work and a *global care labour chain* (Fudge, 2012). Rather, I lay out the case of women PSWs as *an example of how gendered, precarious care work via digital platforms echoes a larger pattern of precarious work becoming more precarious as platform labour in the modern labour market.*

A scoping review of global literature shows that PSWs experience low wages and insecure work (Hewko et al., 2015). Likewise, PSW work in Canada is often part-time or casual, with lower earnings than related occupations such as nurses (Laporte et al., 2020). The relationship between gender and care work is complex. Although the workforce consists of predominantly women workers, US data shows that within the industry, women are more likely than males to have poor health outcomes (Sterling et al., 2021). The COVID-19 pandemic has illustrated how frontline workers such as healthcare workers are at greater risk of work-related health hazards such as COVID-19 where racism and gender discrimination intersect (Smith et al., 2021). Racism is also embedded in the organization of care work, calling for an intersectional approach to studying the care workforce (Laster Pirtle & Wright, 2021) and for understanding how racism and gender bias have contributed to work conditions. For instance, in the US there is a history of delegitimizing home healthcare work by classifying it as domestic labour (Baron et al., 2022). Systemic devaluation of care labour allows DPs to exert power over workers and organise low-status, low-wage gendered labour, but the DP model goes one step further by eradicating access to social security and employment policy and programs associated with employment (Glaser, 2021).

Occupational hazards for DP workers can be considered under three categories: occupational risks that have to do with the job being undertaken (e.g., driving), risks or ‘vulnerabilities’ associated with the precarious nature of gig work, and risks that derive from the work being organized via DP (Bajwa et al., 2018). This literature review focuses primarily on risks that derive from the work being organized via DP; this is the most unique aspect of gig care work, because traditional care work for unregulated workers is also often precarious in nature (i.e., zero-hour contracts, low wages and part-time hours). A distinction of DP work is that workers are considered to be self-employed, exempting them from employment protections such as sick days, unemployment insurance benefits, and workers’ compensation (T. H. Khan et al., 2023; MacEachen, de Rijk, et al., 2022). Gig work research has grown rapidly over the last decade so that platforms such as Uber and food delivery work are now commonly referenced in literature (Schor et al., 2023; Ticona et al., 2018; van Doorn et al., 2022; Wood & Lehdonvirta, 2022). The remainder of this review consists of a brief overview of platform-related occupational health conditions in the broader field of platform labour (Vallas, 2019) followed by a more focused review of DPs for on-location care work.

On-location care and domestic work

DP care work research often combines personal care platform work (e.g. eldercare work) with domestic services platform work (e.g. house cleaning work) (Orth & Baum, 2024). In this encompassing definition including on-location care work, there has been a small body of literature emerge in recent years. However, only a small portion of this literature focuses exclusively on personal care work. First, this literature review provides a run-down of publications that combine personal care and domestic work; then I move to discuss the smaller subsection of literature about exclusively personal care work.

Pertaining to the research that combines care workers with domestic DP workers, the following occupational risks are of importance: automated matching and worker lack of agency, no means for disputing reviews, and inability to negotiate terms despite being classified as independent contractors (Flanagan, 2019). Flanagan looks at a range of DPs offering services for eldercare, childcare, pet-sitting and other domestic work in Australia; these platforms shape the information that gets shared and sometimes ‘nudge’ decisions in a certain way by the use of limiting selections and pre-filled boxes (Flanagan, 2019). DPs promise users a match that will be suitable for them, encouraging information sharing on the basis it will contribute to matches that are personal and more than merely transactional (Flanagan, 2019).

Gendered work is a key issue examined in the literature that folds personal care gig work and domestic services gig work together. A study in Australia found that women are more likely to use DPs for jobs such as babysitting, cleaning and care work while men are more likely to use other platforms such as those for food delivery or driving (Churchill & Craig, 2019). A study in Argentina found that since domestic work is often performed outside of government regulations and traditional employment arrangements, platforms actually provide more formalisation for the sector than typical in off-line casual work, potentially helping ‘professionalise’ the sector for women (Pereyra et al., 2022). Yet maintaining reproductive and paid care work as informal employment and continued exploitation of women who are disproportionately racialised and often immigrants is problematic (Rodríguez-Modroño et al., 2022). Purposefully combining housecleaning, personal care, child care and food delivery in Europe, Lentz and colleagues describe how the normalisation of DP-based domestic care operates in a manner that quantifies or commodifies social reproductive tasks, and consequently legitimises precarity in platform work (Lentz et al., 2025). DPs for care work do not offer a neutral or harmless solution for providing domestic services; these services have risks for

workers that must be understood in broader context. Tensions between the interests of domestic care workers and clients are found in the work of Khan et al. (2024) who looks at workers' efforts to meet the interpersonal needs of clients while maintaining their own well-being and avoiding unsafe situations.

DPs for exclusively care work

Below I focus on the scant literature about DPs for care work exclusively.

The earliest literature about DP for personal care work incorrectly evaluated DPs as unlikely to emerge in the personal care industry. Pamela Doty (2017) appears to have been among the first to write in academic literature about the expansion of home care service through technology. Doty's (2017) US-based research examined "private duty homecare agencies" and their efforts to digitize, in some instances using a gig model of classifying workers as independent contractors before eventually implementing an employee model (Doty, 2017). Based on her observations of homecare companies not succeeding with on-demand gig models, Doty concluded, "Concerns about the "Uber-ization" of home care have proved to be unfounded" (Doty, 2017). However, contrary to Doty's conclusion, in subsequent years, home care – at least private home care – has in fact increasingly appeared on the margins of healthcare and as an active part of the environment of DPs. A possible reason for Doty's incorrect prediction could be that for home care, marketplace platforms may be more feasible than the on-demand models Doty (2017) studied.

Other early work identified important conditions about the work and tax implications, focused primarily on childcare and nannies, but there are gaps in what is known about elder care platforms. Among the earlier papers to emerge about gig care work platforms are the 2018 works of Ticona and Mateescu from the US; however, these authors focus primarily on childcare platforms such as those used by nannies to find jobs (Ticona & Mateescu, 2018; Ticona et al., 2018). This work identified that the DPs investigated made workers more visible to potential clients, but also attempted to formalize informal work by encouraging worker registration with Internal Revenue Systems and tax remittance (Ticona & Mateescu, 2018). Ticona & Mateescu's (2018) findings differ from what is known about many other DPs outside of care work, which is that workers are largely not engaged with tax systems and further, that DPs regularly do not deduct payroll taxes from workers to allow participation in

programs such as employment insurance and public pension plans (Behrendt & Nguyen, 2019; Joyce et al., 2019; T. H. Khan et al., 2023; Kvartr et al., 2025; MacEachen, de Rijk, et al., 2022).

There is also a different kind of platform for directly funded care but it is important to understand that those DP conditions aren't universal. Within this small section of literature is the work of Fiona Macdonald from Australia, who focuses on the national disability scheme for individual funding, with closed gig platforms as intermediaries between workers and clients (Macdonald, 2021a, 2021b). This model has also been investigated by others in Australia (McDonald et al., 2021) and examined in one case where this model was implemented on a trial basis in Ontario, Canada (Jamieson et al., 2021). However, it can differ from DPs that are for the general public to use; for example, only registered PSWs are hired for the GotCare platform in Ontario, Canada and they are hired as employees of directly-funded (publicly funded) people needing care (Jamieson et al., 2021).

When studies do address elder care, it does seem to be different occupational conditions and potentially even a different workforce than for childcare and support for people with disabilities; but this research field is in its infancy and somewhat reliant on worker profiles to get the data. There is recent evidence from Germany that DPs for eldercare differ from DPs for other types of care work such as child care and domestic work, and the workforce on DPs for eldercare may have more skills than platforms for childcare and cleaning, and be comprised of fewer migrant workers (Baum, 2024). Baum (2024) conducted interviews with 14 eldercare gig workers in Germany and also used web-crawling software to investigate worker profiles, noting that such profiles must be viewed as “aspirational” caregivers seeking work and not necessarily those who have found work via platforms. One finding from Baum’s (2024) research is that workers’ skills or qualifications for eldercare and the services they offer translate to different fees, with some less-skilled workers charging around €15 for basic care or supervision, and more qualified workers charging upwards of €30 for more complex care (with the caveat that at least some of the pricing is expected to be ‘aspirational’).

Non-platform forms of eldercare work

DP use aside, some authors suggest that PSWs are “the new precariat” due to the lack of secure hours and the low pay, and being a primarily female and disproportionately migrant workforce (Zagrodny & Saks, 2017). In Canada, PSWs traditionally work for employers providing homecare, as well as providing elder care in hospitals and LTC homes (Afzal et al., 2018). Their duties are various and extend from tasks associated with activities of daily living (e.g., brushing teeth, toileting)

to more medically-complex tasks previously assigned to regulated caregivers such as nurses (Afzal et al., 2018). More medically complex tasks can include things such as wound care and tube feeding (Saari, Patterson, et al., 2018; Saari, Xiao, et al., 2018). Dementia care is another specialty form of caregiving that frequently arises in literature, particularly in literature about workplace violence and harassment (Byon, Lee, et al., 2020; Byon, Liu, et al., 2020; Grasmø et al., 2021; Jepsen et al., 2025; Quinlan et al., 2015; Small, 2020). A key issue in paid care work is that the care is relational (Klostermann et al., 2022). Through this relational lens, one approach to addressing violence and harassment in elder care is to consider that it is part of providing care (Kelly, 2017). That does not mean to say that it is acceptable but rather that knowing how to manage violence and harassment is part of the job of providing care.

One topic area of scientific literature about PSWs is worker health. A recent systematic review found that these workers – described as a “vital workforce” particularly for eldercare – experience workplace stressors and mental health problems (Chireh et al., 2025). Workplace stressors included heavy workload, role ambiguity, role conflict, aggressive client behaviour, organisational support, supervisor support, complicated grief, and lack of resources (Chireh et al., 2025). The international review study examined the relationship of workplace stressors with mental health issues such as burnout, finding several workplace stressors were associated with burnout, while some workplace stressors such as client aggression led to emotional exhaustion and depersonalization. The review also found that women were more likely than men to experience burnout and were more likely to report emotional exhaustion than men (Chireh et al., 2025). Health and social care workers lose more days per year to illness or disability than any other sector, with mental disorders increasingly responsible for lost time (Armstrong & Jansen, 2015).

Besides the workforce being predominantly women, PSW work is gendered care work, meaning that the type of work is often viewed in society as ‘women’s work’ (Poole & Isaacs, 1997). In this gendered lens, paid care work seen as closer to social reproductive work is more lowly remunerated than work that is seen as medical care (Lilly, 2008). Yet low-wage PSWs continue to have increasingly-complex medical tasks assigned to them, even in the lowest PSW wage area of homecare PSWs (Saari, Xiao, et al., 2018).

Institutional Ethnography has a history of being used as a methodology for care work. For instance, Marie Campbell used IE to examine ruling relations between management and front-line nursing

assistants (Campbell, 1998). Campbell (1998) found that dominant market relations and concerns about budgets affected the practices of nursing assistants and reinforced the power of management despite a discourse that frontline staff would be empowered to make decisions. For instance, following management directives, nurses were instructed to use only one incontinence product per night per resident, and also to reduce the expense of laundry by using fewer soaker pads in order to compensate for the cost of incontinence products (Campbell, 1998). Similarly, Timothy Diamond used IE to take the standpoint of nursing assistants and patients in a long-term care home (Diamond, 1986). He examined economic aspects of long-term care homes such as low wages for workers as well as social relations such as how work was assigned on a task-oriented basis. Diamond (1986) also identified how some mental and emotional aspects of care work were ‘invisible’ or not formally recognised in the institution.

This chapter provided an overview of literature about precarious work and the health-related impacts of precarious work. I then described the health-related risks related to temporary work, and ended with a particular focus on the case of care work as (gig-based) DP work. Through this introduction I have laid the groundwork for understanding the precarious nature of PSW work and care work as gig-based DP work. This provides the basis for understanding DPs as a governing mechanism through which power is exerted over workers. To investigate the paucity of literature about gig eldercare workers who use digital platforms and the circumstances of this work when organised by DPs, I use Institutional Ethnography which helps to demonstrate how DPs mobilize as a new regime for organizing gendered care work. In the next chapter, I discuss the methodology and methods used in this thesis, focused on the precarious gig-based DP work of women and inquiring into how DPs shape their work.

Chapter 2

Methodology and Methods

In this chapter I provide a view of the overall research design, underlying theory and specific methodology of this doctoral thesis. First, I describe the research design and Institutional Ethnographic (IE) approach. I then briefly discuss the setting. Subsequently, I describe my positionality as an Institutional Ethnographer. Then I detail the overarching aim of the study followed by three data types wherein I describe obtaining and managing data in the form of interviews, text and observation. I follow this with a brief description of integrating findings and wind up with ethical considerations.

2.1 Research Design

I conducted this doctoral thesis as qualitative study following the methodology of Institutional Ethnography (IE) as conceived of by Dorothy Smith (Smith, 2005, 2006). IE allows a view of how our everyday activities are coordinated by texts. IE is about simply explicating – showing – “[...] how our everyday worlds are organized and how they are shaped and determined by the relations that extend beyond them” (Smith, 1987, p. 121). IE was suitable for my study because I wanted to investigate how the experiences of workers were impacted by the technology they used, and to examine how power relations were evidenced in their day-to-day experiences. I also wanted to explore how work conditions were shaped by a lack of employment-related protections for DP workers.

Smith developed IE, evolving the methodology from her own work in feminist sociology and drawing on extensive knowledge of the theories of sociologists such as George Herbert Mead, Karl Marx, and Harold Garfinkel (Smith, 1987). For instance, Smith cites Mead in describing how our environments are socially organised (p.124), going on to say processes and objects are “already social” (p. 125). She draws on Marx and Engels, as well as Garfinkel in seeing the world in an ethnomethodological way: where the ontological foundation is that the “real” world is all comprised of organized activities, and it is constantly being produced by actual activities being coordinated with others (p.126). This sociology – IE – is not about identifying a singular truth, nor is it about recognizing there are many perspectives or truths. IE aligns with the sociology of Mead and others in identifying the self as something that is socialised by the material world we are immersed in, but takes a Marxist lens in

paying close attention to the ruling relations that are part of coordinating what people do (McCoy, 2021). This ontological positioning of IE is critical in understanding the methodology; however, IE differs from other sociology in how it is conducted. IE does not start from abstract theory and conceptual ideas to understand peoples' experiences; rather, as a method of inquiry it always *begins with informants' actual experiences and what they do* (Smith, 2005).

Smith wrote, "The institutionalized practices of excluding women from the ideological work of society are the reason [...] why we have a sociology that is written from the perspective of positions in a male-dominated ruling class and is set up to the relevances of the institutional power structures that constitute those positions" (Smith, 1987, pp. 35-36). The gendered nature of caregiving is institutionalised and embedded in historically gendered ways of organising work, making Smith's IE approach to uncovering the actual practices that are called norms, beliefs and values an important feminist lens for this study. Rather than accepting the feminisation of caregiving as an accepted norm reflected in the text of DPs and the activities of the women who use these DPs, I consider how the ideas that dominate in the ruling relations of DP care work are enforced through the way DPs organise work. By examining the sociotechnical aspects of DPs, I lay out underlying social relations of women workers that are determined through DP technology. What occurs at the surface level of women interacting with DPs, and through DPs' technology, is in fact reflective of what is already social and determined by the DPs. The precarity of gendered caregiving is exacerbated by DPs; the risks downloaded to workers and assumed by workers, become magnified in DP format as gendered care work becomes entrenched in DP models. Selection of workers is minimised to selection of a profile. Reviews and ratings are gendered commentary on women's work performance. Platforms create care work as 'gigs' – minimising the value of relational work. In all, the organisation of care work is devolved to the exchange of money for (de-valued) service and the skills of women caregivers are rendered less meaningful. Smith's IE has roots in explicating women's silences in the social organisation of work, making it particularly apropos for explicating how discourses about women's care work are visible in DPs ruling relations. Drawing on IE, I will show how DPs introduce a new regime of organising gendered care work.

IE takes an approach to understand how activities are coordinated through text - because the understanding comes from how this coordination is revealed in the actualities of people's everyday doings. Text is used to refer to many things; it can mean talk, print or digital text, or images – any form of language used for communicating (Smith, 2005). Relatedly, Smith views discourse as the

ways text shape practices (Smith, 1987, p.214). IE attends to discourse by ensuring a critical lens is taken to understanding and interpreting texts, and by encouraging consideration of the practices that result and the power positions where messages that are conveyed originate. A critical lens involves looking at underlying reasons people hold their perspectives or considering hidden assumptions that might influence what people think or say. The gendered nature of caregiving work – the expectations, associations and value ascribed to characteristics seen as feminine – is an important point for critical analysis. For instance, some women in this study saw themselves as natural caregivers rather than professionals with skills training. This led to the inductive code, “Innate Caregiving”; yet a critical lens must be applied in analysis to deconstruct what scaffolding constructs and reinforces that perception.

Overall, this study used IE to achieve the two-fold aim of this dissertation: first, to examine the precarious work experiences of women PSWs who seek eldercare work via a DP model; second, to investigate the work-related protections that apply to digital platform care work and how these shape work conditions.

2.2 Setting

The selected site of this study was the Province of Ontario, Canada where preliminary searches showed there was evidence of platforms being used in urban areas. Ontario is the largest province in Canada and has large urban areas where the population is sufficient for DPs: areas with low population density do not work for DPs because there have to be enough available workers and potential clients for supply and demand of caregiving. While healthcare in Canada is largely publicly-funded, the publicly-provided home care has limitations on who can access it and how much service they are entitled to. Therefore, there is presumed to be some market for private eldercare. Self-employed workers in Canada are required to pay taxes to the Canada Revenue Agency. They are not automatically covered by Employment Insurance (a federal program) to protect them in the case of job loss. Regarding provincial occupational health protections, self-employed workers are not automatically covered by workers’ compensation under the Workplace Safety and Insurance Act which would protect them from income loss due to workplace injury. Self employed workers can opt to purchase workers’ compensation coverage; however, there is no evidence of whether this option is actually taken up or by how many.

2.3 Positionality

I am a White woman with disabilities. My formative years were spent in a rural agricultural community with a small manufacturing industry, where higher education was widely viewed as an unnecessary pursuit and a waste of money. I have lived in financial precarity for approximately half of my adulthood. It was a privilege to obtain loans to begin graduate studies and subsequently receive scholarships and work opportunities that allowed me to continue to pursue further education. With this privilege, I have a responsibility to illuminate complexities of care work, as well as interwoven issues of relational care and client safety. The research foci of my academic supervisor, who has generously provided years of training on her studies of precarious workers including ill and injured workers and gig workers, have continually spurred me to consider broader issues of work and health conditions. Combined with a penchant for fairness and justice, my approach to research about gig care work has been neither neutral nor naïve. My work life experience includes almost one year working as a homecare PSW in Ontario, during which time I worked for clients living in their homes, as well as one summer working in a group home for adults with developmental delays and other concurrent diagnoses. I subsequently spent more than 10 years in the home and community care sector running an Adult Day Program, where I worked closely with a PSW, a nurse, volunteers, families and clients who lived in their home and attended for respite care. Working as a PSW and my subsequent position of coordinating people and the day program, and sometimes providing direct care, have given me extensive experience understanding the labour and skills required by unregulated caregivers. This experience has shaped my views of care work. I critically reflected on my positionality and recognised that my experience placed me in alignment with the needs of workers and clients as opposed to the DPs and LTCs.

I am an insider to this research insofar as being female and having occupational experience in the field; however, I am also an outsider to many groups (Greene, 2014) as I am a White academic researcher. An insider perspective of unregulated care work had two distinct advantages. First, in observing the language used by workers in discussing their DP work, I could distill institutionalised language associated with care work from language about DP function, and focus on the latter without the need to inquire or disentangle it from the jargon of care work. On the other hand, it was vital not to assume too much and fail to inquire about processes, texts or activities; a risk for those too familiar with the research field. A second advantage of my own care work experience was that it contributed to building rapport with workers, which was particularly helpful following deceptive on-app

recruitment and disclosure. I disclosed my own background as a PSW to participants upon introducing myself, before consent and before interviews began.

2.4 Understanding IE through multiple sources of data

Three forms of data often contribute to IEs, and are used in this thesis: texts, informant interviews and observations (Campbell & Gregor, 2002). In order to consider the socio-technological functions on DPs, it was necessary to engage with how technology orders information and institutionalises actions. This conceptualisation helped establish my own methodological framing of this research approach as digitally inclusive IE. The technological functions are a form of textual data, given that the programming or algorithm writes meanings that are engaged with and understood by those interacting with the presented text. I use the term informants for referring to interviewees because this is in keeping with IE, which utilises the term informant to recognise that participants are “expert knowers” (Rankin, 2017). Informants is a commonly used term in anthropological research because the researcher is seen as naïve to the culture being studied and the informants provide the keys to understanding (Morse, 1991). This applies to IE wherein the informant is the subject matter expert on their own experiences (Campbell, 1998).

The use of IE in DP research is in its infancy; when I first began this project, I was unaware of IE being used to examine social relations in a DP. Recently I came across the work of Tanya Osborne, who used IE combined with Ethnography for the Internet (Hine, 2020) for dissertation work and a chapter entitled, “Writing the Social Web: Toward an Institutional Ethnography for the Internet” (Osborne, 2023). Osborne writes, “Many platforms coordinate and categorize their users within a discursive frame, by explicitly giving scores, rankings, or titles to users, or by use of algorithmic sorting”(Osborne, 2023, p. 234). My approach resembles that of Osborne (2023) in that I draw from IE to begin from the actual experiences of people in their everyday realities; however, I diverge as I do not coordinate inquiry via Ethnography for the Internet (Hine 2020). Rather, I choose to read digitalized texts within the mechanisms of the DPs the same way Smith conceived of text: as organizing and coordinating what people do (Smith, 2005). On DPs, I see text in DP content, forms, and prompts; and I see digitally enabled action such as inputting data in answer to queries as “text-reader conversation” wherein people activate the text when they read it and then respond to it.

In the next section I describe three forms of data and how each was managed: interviews, texts and observations. I then describe the integrated analysis towards mapping DPs. I finish with a brief section on ethics.

2.5 Study Advisory Committee

A Study Advisory Committee was formed consisting of two PSWs, one PSW organisation coordinator and advocate, and one DP owner whose DP operated outside of the Province of Ontario. The Study Advisory Committee was formed to ensure that the study materials would be relevant to workers and key informants and to be sure findings resonated with their lived experience. The Study Advisory Committee had three meetings: one prior to the undertaking of the study where the committee contributed to developing the interview questions, one following interviews to share preliminary findings and hear committee members' perspectives, and one following writing up the study to inquire if the members had any suggestions for knowledge dissemination. The Study Advisory Committee was particularly helpful in ensuring the interview questions were relevant and could be understood by PSWs.

2.6 Interviews

The actual activities of people – all the actions and movements they undertake in a task or event – comprise work and are a central focus of IE (Smith, 2005). Distilling and analysing the pieces surrounding the acts of work is vital, and interviews offer a way of getting at that information. To do so, I found IE interviews often involved follow up questions, probing for further details. Interviews enable the Institutional Ethnographer to elicit details from interviewees that describe their activities and shed light on how their activities are linked to the institutional force that is at play.

2.6.1 Interview Sampling and Recruitment

I used a purposive sampling strategy (Patton, 2002) which is intended to sample people who meet certain criteria to ensure the sample is relevant and rich with experience. I purposively selected informants who met the inclusion criteria: the workers had to be self-employed, women-identifying people, seeking eldercare work in Ontario, Canada, using a DP. The key informants had to have experience with DPs that would offer insight about how the DPs worked for clients or workers. I aimed to recruit 20 workers and at least five key informants. Key informants are people with special insight in their positions. For this study, key informants are people with special knowledge of digital

platforms such as platform owners or managers, platform technology programmers or developers, or end-users (clients/customers) of the platforms.

Workers and key informants were recruited via several methods and most went through a screening process to determine eligibility. For workers, I had to ensure they were self-employed and used DPs to find eldercare work; those workers who were recruited directly from DPs were not subject to a screening process because they obviously used DPs. Materials are included in Appendix C and D of this dissertation. For other participants, screening occurred via phone or Qualtrics survey. Workers were required to use DPs to find care work as independent contractors (self-employed) and not as temporary agency employees. Workers who did not meet inclusion criteria had the reason explained to them by the researcher or automatically after responding to the relevant question in Qualtrics. All ineligible workers were thanked for their time and asked if they wished to receive a copy of the study results when available. Eligible workers asked if they would like to participate and were invited to set up a time for an online video interview.

Key informants - who were purposively recruited and worked for a DP that met eligibility criteria - were not screened, although they were asked to describe their role and familiarity with DPs as part of the interview. The two client key informants were recruited from Facebook groups where they self-identified as a person privately hiring care workers, or from posters advertising the study.

All informants were sent an information letter; then verbal consent was obtained by the researcher prior to the interview and tracked in an oral consent log. Interview procedures and data management are described below.

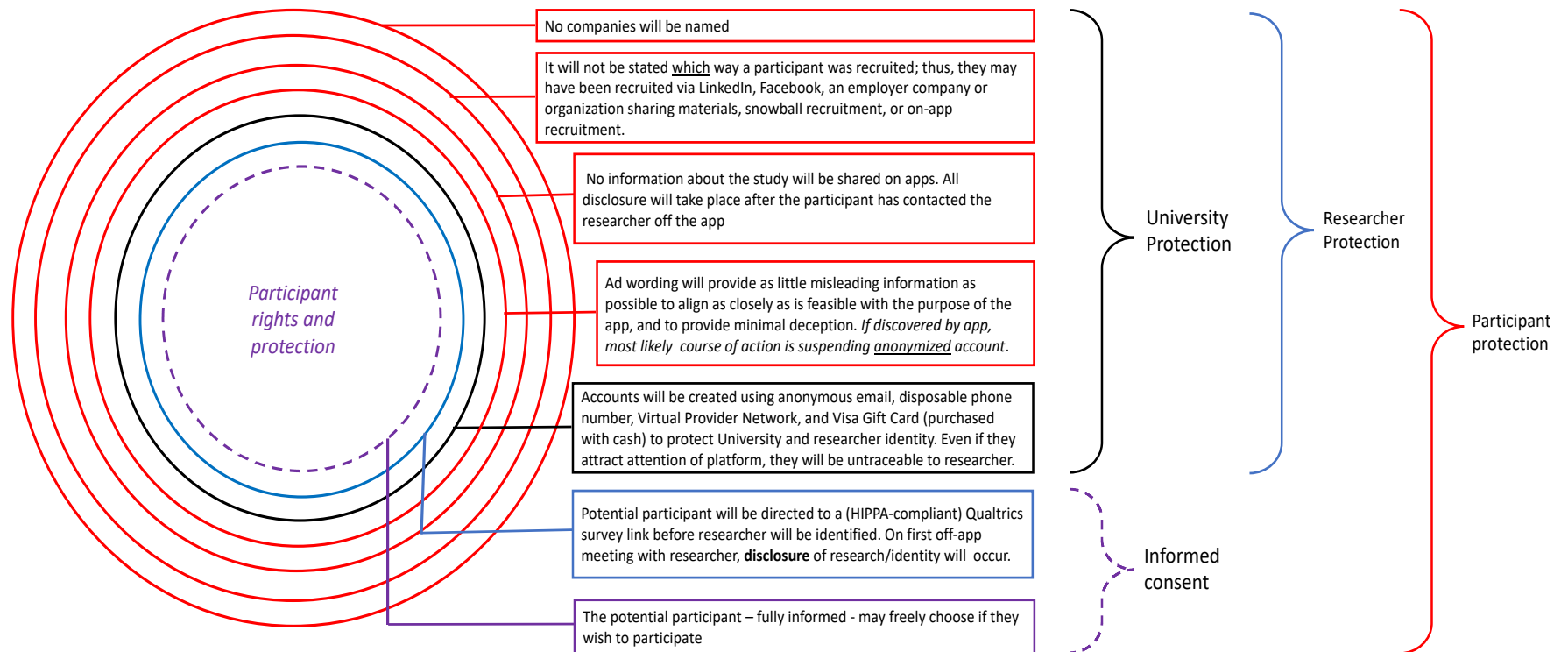
Recruitment was initially undertaken in a variety of ways: posting physical posters near Greater Toronto Area locations that were known to hire DP workers (such as hospitals), working with urban healthcare companies that employed PSWs who may have second jobs working via DPs to send the recruitment flyer to their employees, electronic distribution of posters via care-related organisations or associations, sharing posters in specific relevant Facebook groups, purchasing Facebook ads targeted at female care workers in Ontario, and sending direct messages to people who identified as working for eligible DPs. During recruitment (April 2023 – January 2024) only 12 workers of the planned 20 were initially recruited via traditional means described above. To achieve a larger sample, I undertook procedures to recruit workers on digital platforms directly, by posing as a customer seeking homecare support (more about this in 2.5.1.1 Ethical Considerations section below).

2.6.1.1 Special consideration for on-app interview recruitment and deception

In this study, after exhausting other recruitment avenues, it was not possible to recruit an adequate worker sample without access to the workforce on the DPs. I spoke with the Office of Research Ethics about the potential of going on DPs and recruiting workers by posing as a hiring employer. With their suggestions, I then undertook further research, and spoke with legal experts and experienced gig worker researchers.

To use the DPs, it was possible to adhere to many DP terms and conditions (e.g., not scraping data, copying code, or interfering with others' use of the app) but it was necessary to contravene the DPs' terms and conditions in one area: in order to protect participant identity, I would have to assume a name other than my own. Assuming another name was to ensure that the app could not identify the researcher on the DP, thereby identifying the researcher's account and risking identification of workers who interacted with the researcher and potential monitoring of researcher-participant communication. Furthermore, to ensure that any monitoring of communication would not identify the worker as a participant, the researcher moved communication off the app as quickly as possible. As additional layers of protection for workers identity, the researcher took additional steps to ensure their account could not be traced back to them. These included the use of a virtual provider network for internet connections, a study-specific email account, and a phone number set up using a pre-paid phone account. The strategies used for informant protection are identified in Figure 1.

Figure 1: Protections for potential participants in on-app recruitment



2.6.1.2 Worker sample

Utilising both traditional and on-app recruitment, between April 2023 – January 2024 I recruited 20 women who used DPs in Ontario to find care work as independent contractors. Twelve of these women were recruited via traditional means, while eight were recruited on DPs. Ultimately, using deception and disclosure to recruit workers directly from DPs was a strength of this research: it ensured these workers were legitimate users of DPs and had experience using the DPs. It also may have allowed me to recruit people who would not respond to an ad.

All workers that were recruited from DPs used marketplace platforms that are used for directly connecting individuals hiring workers with the caregivers. Marketplace platforms can be used by members of the public (i.e. clients) to connect with other members of the public (i.e. workers) to arrange work. On-demand platforms were used by hospitals and LTC homes to hire workers in an on-demand process. Workers become registered on on-demand platforms and hospitals and LTC homes post shifts for workers to click to apply to. It was not possible for me to recruit using deception from on-demand platforms because it was not possible to join on-demand platforms utilised by hospitals and LTC homes to hire workers. However, I recruited eight on-demand workers via traditional means.

The worker population is described in the following table.

Table 1: Worker Sample

Pseudonym	Canadian born	Age	Self-described Race or Ethnicity	Care work Experience	App type and jobs obtained
Carmelita	N	25-34	Filipino	< 1 year	Marketplace (0 jobs)
Ifeoma	N	35-44	West African	< 1 year	Marketplace (0 jobs)
Rayola	N	18-24	West African	< 1 year	Marketplace (0 jobs)
Joyce	Y	35-44	Caucasian	10-20 years	Marketplace (1-5 jobs)
Keyshia	N	25-34	West African	< 1 year	Marketplace (1-5 jobs)
Melody	Y	25-34	Caucasian	5-10 years	Marketplace (1-5 jobs)
Leandra	N	25-34	Eastern European	1-5 years	Marketplace (1-5 jobs)
Reyna	N	55-64	Filipino	1-5 years	Marketplace (1-5 jobs)
Rosemary	Y	35--44	Mixed race	10-20 years	Marketplace (1-5 jobs)
Shelly	Y	35-44	Caucasian	20+ years	Marketplace (1-5 jobs)

Beryl	N	55-64	East African	1-5 years	Marketplace (5-10 jobs)
Heather	Y	45-54	Caucasian	10-20 years	Marketplace (5-10 jobs)
Bonita	Y	45-54	Black Canadian	10-20 years	On-Demand (0 jobs)
Ling	Y	25-34	Southeast Asian	< 1 year	On-Demand (0 jobs)
Xaliima	N	35-44	East African	10-20 years	On-Demand (0 jobs)
Melanie	Y	35-44	Caucasian	< 1 year	On-Demand (1-5 jobs)
Amara	N	35-44	West African	1-5 years	On-Demand (5+ jobs)
Beth	Y	45-54	Caucasian	5-10 years	On-Demand (5+ jobs)
Laiba	N	18-24	East Asian	1-5 years	On-Demand (5+ jobs)
Pia	N	25-34	Filipino	5-10 years	On-Demand (5+ jobs)

There are two evident choices made by the researcher that affect the worker demographic description. First, participants who were not born in Canada were not asked about their eligibility to work or resident status, or how long since they had moved or immigrated to Canada. While a few volunteered this information during interviews, it was not consistently collected. Second, participants were invited to self-identify their race and ethnicity; however, without selecting from predetermined categorisations, responses were inconsistent. Canadian-born workers identified by race as Caucasian, mixed race in one instance, and Black Canadian in one instance.

Both race and ethnicity are complicated social constructs (Flanagin et al., 2021) with stigma, racism, colonialism and personal preference playing roles in how people choose to identify. For this reason, we opted to accept the initial responses of workers regardless of the language they chose. The primary reason for collecting these data was to understand if the workers' experiences may be impacted by their racial or ethnic identity.

Most of the marketplace workers worked for one platform, although a couple used other marketplace platforms as well. All the on-demand workers worked for a single platform except for one worker who used two different on-demand platforms. Details about the platforms and which workers worked for which platform are not shared to exercise extreme caution about the potential for identification.

2.6.1.3 Key informant sample

The key informants from this sample constituted a wide variety of people who had various knowledge about the institutional setting of the digital platforms. Five of the KIs were from the platform sector; they were recruited to provide insight into the mechanics and economics of platform work. The four LTC and hospital KIs were recruited for knowledge about how and when these institutions hire platform labour. The two home care KIs were recruited for their knowledge about using the DPs to find workers and their experience using platforms to hire their own workers. The Labour and Employment legal professional and the gig worker sector KI were recruited for any insight they could provide about the differences between temporary employment agencies and gig work platforms as well as the classification of workers. Their perspectives were sought at various points throughout the study to enhance understanding of the problematic and the institution of digital platforms used for care work.

The key informant sample is described in Table 2:

Table 2: Key Informant Sample

#	Pseudonym	Role	Sectoral expertise
1	Laura	Executive role	Hospital
2	Harpreet	Staff training	LTC
3	Jennifer	Human Resources Director	LTC
4	Delphine	Human Resources Management	LTC
5	Maria	Platform client	Home care
6	Kyle	Platform client	Home care
7	Diya	Management	Labour and Employment law
8	Jack	Business	Gig work sector
9	Deepak	Technology expert	Platform technology
10	Meilin	Technology expert	Platform technology
11	Aurora	Founder of DP	Platform technology
12	Emily	Founder of DP	Platform technology

2.6.1.4 Interview analysis

Most interviews with workers were conducted via video chat; however, in two instances the workers were unwilling to connect by video chat. As a result, those interviews took place via phone. I used Microsoft Teams for video chats with traditionally recruited participants. I used jit.si for video chats with workers recruited via deception to protect their and my identity from the platform and because platforms do not block messages with the text jit.si. The purpose of conducting interviews via video chat was to enable screen sharing and observation of the participant using the DP. Interviews were transcribed via Otter.AI and then I carefully listened to and corrected each transcript. Verbatim transcripts were uploaded to NVivo 11 and the program was used to code worker and KI interviews. Codes were developed both a-priori based on interview guides and iteratively based on topics that arose from reading the transcripts. The codebook was revised during coding to align with identified themes. There were 19 codes in the final codebook which can be found in [Appendix R](#). These codes surrounded the areas of worker on-app experiences, worker experiences overall, app processes, and more general, contextual areas such as self-employment.

All transcripts were independently coded by me and another graduate student. We met to review how the codebook was working and make revisions and discuss any discrepancies in applying codes.

Fieldnotes were made during and following each interview. Fieldnotes were used to review my impression of the interview, and to stimulate discussion with my supervisor who contributed to analysis of data. Fieldnotes helped to capture observations as well as my reflections and initial thoughts in a timely manner. Fieldnotes were referred to throughout the research to remind the researcher about their impressions of participants.

2.7 Texts

2.7.1 Text Data

Texts such as images or words used in digital platform design and messages or other communications and their interpretation play a key role in IE; they contribute another standpoint from which the Institutional Ethnographer can examine the social positioning of the author, the intended purposes of the message, and the ways information is organised (Smith & Turner, 2014). Texts may be examined for how they organize what it is that people become conscious of, and what people actually do (Smith, 2020, p. 67).

2.7.2 Text Sampling

I received screenshots from study informants. The screen shots showed how the platform interacted with them. The final sample of screenshots provided by platform workers was 12 images from four different platforms. These platforms are named with pseudonyms out of an abundance of caution for protecting participants from identification by platforms.

Table 3: Screenshot sample

Platform	Screenshots
Platform “Betty” (On-demand)	2
Platform “Caring Jobs” (On-demand)	3
Platform “Care work” (On-demand)	5
Platform “Find workers” (Marketplace)	2

2.7.3 Text Analysis

Texts in this study were analysed concurrently with the conducting of interviews. The screenshots reinforced what informants spoke about and helped inform what informants were seeing when they ‘clicked’ buttons or took other action on the platforms. There were also screenshots of menus to indicate what options workers had, which pointed to the limited autonomy of workers. Texts such as profile descriptions (e.g., basic member) along with banners stating things such as “Want unlimited messages? Go Premium” and buttons such as “Upgrade” revealed the position of the platforms as businesses. Screenshots also provided examples of what job postings looked like for workers, demonstrating the limited amount of information available to workers before they clicked “Apply to Shift” or “Quick Apply” (depending on the platform).

2.8 Observations

2.8.1 Observations Data

Only observations of a specific nature are relevant for IE (Campbell & Gregor, 2002). Those observations that are relevant and enhance IE are those which explicate processes and interactions in a way that demonstrates how work is performed, while also contributing to a work-related story (Campbell & Gregor, 2002).

2.8.2 Observation sample

I gained valuable insight by observing my own interaction with workers while posing as a client. In addition, I observed informants using their apps. Observations for this study took place during online interviews with worker informants, when a few workers demonstrated how they used digital platforms (DPs). I observed them use the DPs by screen sharing or having them show me how they used the app on their smart phone devices, through computer video interview. Additionally, I observed DPs and DP functions via publicly available websites, promotional videos or ads, and by the covert use of DPs while posing as a client hiring workers (More in 2.9 Ethical Considerations below).

The ability to observe participants' use of DPs was somewhat limited due to the video interview method and the fact most participants had only one device which they used for the interview. One participant spent 40 minutes screen sharing as she navigated two DPs and I was thus able to observe how she used the DPs. Two participants briefly held their phones up to the computer and showed me how they used the DPs and showed me specific pages or options on the DP.

In a few of the video chat interviews with workers, the worker had only one device and observation was not possible. In most of those cases, the workers sent screen shots of the DP they used. One worker declined to send screen shots as they did not want their data (name) to be transmitted. Electronic fieldnotes were written during and after each interview. Several participants were observed using DPs, via showing the researcher their mobile device by video chat or by screen sharing on desktop. Their actions, including the order they used features and how they performed tasks, were noted. I also observed platforms via accessing apps and DP sites directly. The observations were recorded in written field notes and whatever speaking occurred was recorded in transcripts. No videos were made.

2.8.3 Observation analysis

Observations were analysed concurrently with interview transcripts as informants verbally described the actions they took. This helped to explicate the tasks associated with using DPs and the activities undertaken by workers interacting with the apps. The observations and text data helped me better understand the experiences they were describing during the interview. It also solidified what participants were saying during their interviews.

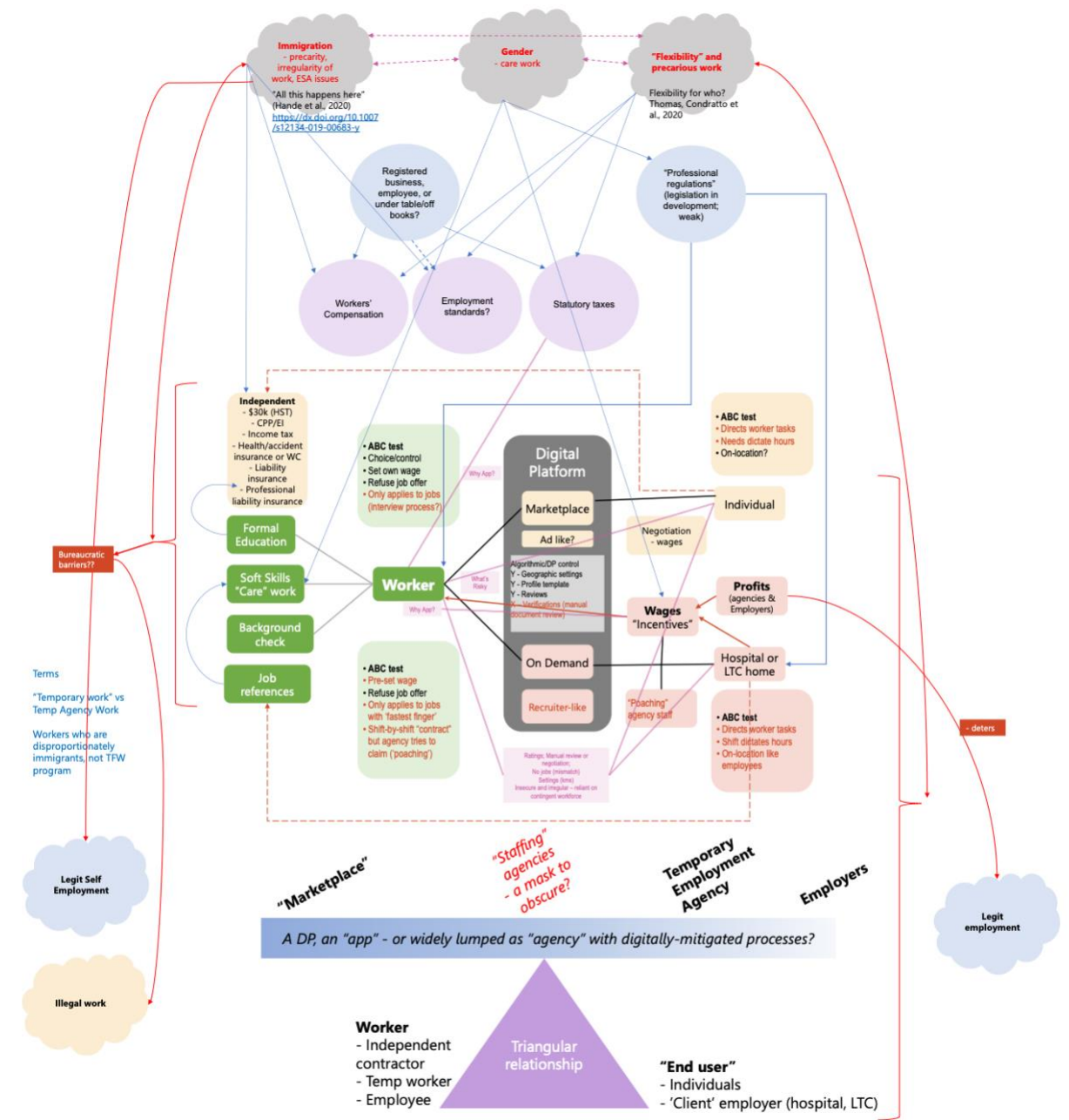
2.9 Integrated Analysis

Analysis for Institutional Ethnography is ongoing during data collection and through to writing findings. Above, steps are described as though in a chronological order; however, in practice the process was iterative and involved going back and forth from platform observation, text analysis, interviews and data familiarization, coding, mapping, and writing. Consideration was paid to how the various texts became governing texts – that is, how texts (e.g., forms, website text) influenced the workers and clients/organisations using the DPs. The technology of DPs itself often contained governing texts that shaped behaviour and power relations between parties.

In the first manuscript, I drew on Marcusean theory to explicate how technology can take the form of governing texts and shape the behaviour of technology users. Technological rationality lays the groundwork for understanding how technology may constrain or limit the perceived or possible actions of workers.

I engaged in processes of mapping the social relations involved in the use of DPs for finding care work both narratively and visually at various points during this research. The narrative mapping involved writing the accounts of workers and the social relations that affected them. This led to the manuscripts (Chapters 1-3). The visual mapping focused on social relations between workers and institutions such as the platform, workers, and employment law. (See Figure 2). The figure demonstrates the process of how I was mapping at one point in the analysis.

Figure 2: Example of Mapping



Overall, the mapping helped inform the organisation of the codebook and understand the relations of things such as government programs external to the informants and how these issues and entities

related to the workers and key informants who participated. With the mapping process, I integrated the interview and document data. The analysis consisted of reviewing apriori codes and adding new codes in an inductive fashion, drawn from data. Early on, it became clear that the marketplace type of DP and the on-demand type of DP had different functions and were utilised by different audiences. This informed the decision to explicate this in the first manuscript. The second and third manuscripts also followed the typology of marketplace and on-demand platforms because there were different considerations that affected workers and clients in how the platforms worked. The second and third manuscripts utilised participants who worked on or used or were experts on each type of platform respectively. Making the distinction between marketplace and on-demand DPs highlighted two key things: first, that the end-users were different (marketplace was used by individuals hiring private care workers and on-demand was used by organisations such as LTCs or hospitals); second, it highlighted that workers who had more qualifications or formal credentials were more prominent on on-demand platforms, while workers who had unrecognized qualifications, informal experience, or aspirations used marketplace platforms. This highlights how the platform model operates as a governing text to affect the ruling relations between workers and clients/organisations and the DP companies themselves.

In moving from coding to analysis – a process that involved discussions with the second coder and other co-authors, re-reading data, and writing and memo-writing – the themes in each paper were developed iteratively. This process is collaborative and ‘messy’ with much ongoing revision and analysis. The back-and-forth group discussion and input of co-authors enriched the findings.

2.10 Ethical considerations

This research initially received ethics approval from a Human Research Ethics Board at the University of Waterloo on March 24, 2023 (ORE #45108). The original ethics clearance certificate can be found in [Appendix A](#). Qualitative research, including IE, unfolds in an iterative manner meaning it is not always possible to predict the requirements of the study at the outset. Furthermore, it was not possible to predict the size of (or difficulty recruiting) such a specific, understudied population as gig care workers in Ontario. As such, amendments were required through the course of the research due to changes in recruitment processes, as well as changes with the researchers involved. The complexity of a later recruitment strategy also required a second application which received [ethics approval](#) October 13, 2023 (ORE #45167).

The identity of participants and data were protected using the careful treatment of data; I stored all information on an access-protected server at the University of Waterloo. All sensitive files were password protected and personally identifiable information was removed in a timely manner.

I faced a particularly challenging decision when I could not recruit an adequate sample and decided to go through the procedures to pose as a customer for the purposes of recruiting workers. The University of Waterloo ethics board encouraged me to seek legal advice because they perceived I could be breaking the terms and conditions of the DPs if I used the DPs for a reason other than hiring a care worker. Ultimately, the ethics board agreed that I could pose as a caregiver for a one-time interview and that I would remunerate workers at an amount equivalent to or surpassing what they would have earned in care work. The process of purchasing a disposable phone with cash and setting up an account was nerve-wracking, and I kept feeling anxious throughout recruitment because I was not comfortable having to mislead potential participants; however, once I disclosed to each participant that the purpose of the contact was research, I became more comfortable. Only one potential participant declined the interview and the remainder understood why I had to go on DPs to recruit workers and agreed to be interviewed. Still, two workers described that they were disappointed I was not a real customer, with one saying, “I thought maybe you were the one,” in hoping I would be the person who provided her with a job. Thus, while being as ethical as possible for deception and disclosure in research, the process did impact me emotionally because the disclosure was disappointing for some participants.

This methods chapter described the processes and participant sample of the research. In the next chapters I provide the three manuscripts that comprise this thesis. In the first manuscript, I describe the two different models of gig care work platform, marketplace and on-demand, and how each model is found in a separate sector of healthcare: marketplace models are found only in homecare, and on-demand models are found exclusively in long-term care and hospital organisations hiring workers. In the second manuscript, I describe the risk to hospital and LTC organisations in hiring gig care workers. In the third manuscript, I explore trust as I write about how homecare workers using DPs experience this work and how a couple of clients experience hiring workers.

Chapter 3 (Manuscript 1) On-demand and marketplace platforms: Gig care work conditions on two digital labour platform care models

Overview

With worker shortages and the need for care workers projected to grow, personal care work via digital labour platforms (DLPs) is important to understand. This paper considers DPs used by gig care workers providing personal care in Ontario, Canada. We recruited 20 women gig care workers for interviews. We examined socio-technical processes such as signing up on platforms, creating profiles, and searching for jobs. We draw on Institutional Ethnography to study the actual work on two DLP models: marketplace and on-demand. Marcusean theory provides a lens for the critical examination of DLP care work. We found job inequity between DLPs operating in the home care sector, compared to DPs used in institutional settings. Jobs had disparate quality between the two platform types. Workers on both DLP types remained vulnerable to fluctuations in demand and had limited social security protections, and both models of DLP institutionalised precarity.

Introduction

Digital Labour Platforms (DLPs) have technological functions and parameters that affect worker choice and control, shaping their gig work. How this technology impacts unregulated care work is important to understand considering the vulnerable workforce and issues with healthcare workforce shortages. DLPs for care work can lower the value of gendered social care work, and fragment care labour by breaking down time and activities and downplaying the merits of relational care (Macdonald, 2021a). Risk in gig care work also includes other elements; for instance, an absence of organisational support in managing care (Macdonald, 2021a) or taking on ‘unpaid labour’ in the form of continual efforts to obtain more paid work on a DLP (Pulignano, Mara, et al., 2023). Scams such as fake jobs, and job offers with requests for workers to wear bikinis or provide massages are additional risks for workers (Ticona, 2022).

Already precarious – with low pay, often part-time positions and zero-hour contracts, and risk of injury and violence (O’Sullivan et al., 2019; Sayin et al., 2021) – unregulated care work becomes

even more problematic when workers using DLPs are classified as independent contractors (gig workers) instead of employees or temporary agency employees. Given these concerns, it is important to understand how DLPs embed social conditions of gig care work through technological functions such as socially influential algorithms, and constrain what care workers can see, know and do.

The literature about traditional healthcare employment offers relevant insights not yet closely examined in DLP gig care work. Most gig care studies focus on nurses (Lien, 2023) or individuals hiring personal care workers (Dowling, 2022; Macdonald, 2021b; McDonald et al., 2021; Ticona & Mateescu, 2018). Healthcare employee job conditions have direct implications for the quality and safety of patient and client care (Hignett et al., 2016; Shaw et al., 2020), yet little is known about how gig personal care workers affects the quality and safety of client care. Even less is known how supplementing employee workforces in LTC and hospital settings with unregulated gig workers affects care.

Since platform care work poses concerns for both workers and care recipients (Dowling, 2022; Macdonald, 2021b; Ticona, 2022) critical examination of the expansion of DLP care in any healthcare setting is critical. In Ontario the use of on-demand workers in hospitals and LTC is a financial concern (Smith Cross, 2023; Welsh, 2023). Examination of gig workers in formal institutions has received coverage by media (Mojtehdzadeh, 2021) but to our awareness, has not yet been examined in scientific literature. An additional gap in literature is research about how DLPs differ from temporary help agencies (also called temporary employment agencies). We found only one study that compares differences such as: platform matchmaking versus human matchmaking, instant or rapid matchmaking versus variable time matchmaking, and worker status as an independent contractor (“freelancer”) versus an employee of a temporary agency (Meijerink & Arets, 2021).

In this paper we illustrate how technological functions of DLPs shape work conditions and disentangle how technological parameters affect worker choice and control. We first outline the theoretical framing for our analysis followed by a review of the gig care work literature that contains information relevant to socio-technical functions. Next, we describe two models of DLP care work, according to characteristics identified by Ticona et al. (2018). We then discuss the healthcare environment of Ontario, Canada as context that contributes to shape gig care work. Socio-technical functions and the healthcare environment together set the stage for gig care work to be stratified into the two described models of DLP: on-demand and marketplace DLPs.

Theoretical framing

We draw on methods from Institutional Ethnography (IE) to examine specific DLP functions that workers describe engaging with on platforms, which highlight features embedded within DLPs. Having illuminated these technological elements as socio-technical factors that influence work, we borrow from Herbert Marcuse to contribute an understanding of how technological rationality entrenches workers' positions of disempowerment in a capitalist system (Marcuse, 1964; Marcuse & Kellner, 2001) through DLPs.

Herbert Marcuse's concept of technological rationality, which entrenches workers' positions in a class system (Marcuse, 1964; Marcuse & Kellner, 2001), sheds light on how relations of domination associated with Western capitalism manifest in the DPs used by gig care workers. This view begins to illuminate how socio-technical functions affect DLP workers.

For Marcuse, scientific rationality shapes people's understanding of the world and minimises their potential to conceive of alternatives to the way things are perceived; this is a precursor to technology as a means of control (Marcuse, 1964). He identifies scientific rationality as contributing to "...technology as form of social control and domination" (Marcuse, 1964, pp. 174-175).

While Marcuse suggests that neither scientific rationality nor technological rationality themselves are capable of reproducing capitalist ruling relations, they do tend to reproduce societal norms; in this instance, a capitalist system. In positioning humans as labour power and time as quantifiable assets, people experience a prioritisation of that which is quantifiable (Marcuse, 1964, p. 174). We relate this theory to DLP technologies that exemplify quantifiable aspects of labour and thus (de)value people as a countable labour force, with value attached only to the 'gigs' performed. The technology rewards that which is counted, doling out petty compensation for countable gigs and lining the pockets of DLP companies with dollars - and a possibly even more valued asset: data (Zuboff, 2019).

Literature review

Within the large body of gig work literature, we pay special attention to DLPs for the provision of care work which combines domestic work, such as cleaning, with personal care work. While the consequences of DLP care work are critical factors in work conditions, we focus primarily on the technologies that constrain the activity of DLP workers to illustrate how technological rationality actively shapes work conditions and reproduces job disparity between healthcare sectors.

Socio-technical functions

A wide range of gig work literature focuses on socio-technical phenomena in DLP work, wherein workers experience digital functions that exert control or otherwise constrain potential actions. In the language of Marcuse, DLP functions can be termed as technologies. These technologies act in a dominating manner that institutional ethnography (IE) would refer to as governing texts that organise people's activities (Smith & Turner, 2014). In shaping worker actions in DLP care work, governing texts are power-exuding forces or structures that encourage or even require certain actions from platform users. The lived experiences of workers illustrate how DLP texts order or shape the actions of workers. This is sometimes framed as algorithmic management, which can have negative consequences for workers on DLPs and in other forms of work (Vignola et al., 2023). One DLP technique that acts as a governing text is the use of gamified systems to reward some workers and penalise others (Maffie, 2024). Reviews and ratings also act as governing texts, with the threat or promise of negative or positive feedback in a public forum influencing workers' behaviour (Wood & Lehdonvirta, 2022). A further action that engenders worker action is urging workers to self-promote, such as care apps pushing women to make themselves visible (Mateescu & Ticona, 2020) and present themselves in an appealing way (Kalembe et al., 2023). Yet another example of governing text in gig work literature is surge pricing, which provides financial incentives for workers during times of peak demand to encourage workers to accept jobs (Chen & Sheldon, 2016; Guda & Subramanian, 2019).

Workers' identity and employment status

DLPs tend to institutionalise informal labour as opposed to facilitating formal employment. Workers' identities including gender and race, and immigration status, and the devaluation of care work are intersecting factors, important for understanding the arena of informal DLP care work and work conditions. DLP care work can involve the further degradation of an occupation with already low wages for a workforce consisting of primarily women (Rodríguez-Modroño et al., 2022). Immigrants, who frequently possess skills unrecognised by formal institutions (Lam & Triandafyllidou, 2022), are often unable to move out of informalised private care work (Scott & Rye, 2023). Indeed, migrant workers performing DLP care work may feel they have no choice other than gig work (van Doorn, 2022).

In parallel literature, DLPs for housecleaning in Denmark have been shown to institutionalise precarious work for migrant domestic workers (Floros & Jørgensen, 2022). Women engaged in care work often demonstrate compassion for care recipients, and may also feel obligated to perform the relational work of providing care, potentially tolerating poor work conditions in order to complete their work (Dowling, 2022). Gendered-work and intersectional issues for domestic gig workers who are female exist in examples globally, such as Europe (Pulignano, Mara, et al., 2023; Rodríguez-Modroño et al., 2022) and Australia (Macdonald et al., 2018). Despite the pervasiveness of DLPs reproducing gendered care work inequities, there are instances (e.g., Argentina) where the kind of ‘platformisation’ of domestic care has instead been implemented in a manner that encourages formal employment via routes of regulation and enforcement (Pereyra et al., 2022).

There are several risks associated with gig work including a lack of social benefits, such as employment insurance and workers’ compensation, which negatively affects workers’ overall occupational conditions (MacEachen, de Rijk, et al., 2022; Muntaner, 2018). Financial security, social risks, physical and psychological health and safety risks, and risks related to inequality are additional problems associated with gig work (Murray et al., 2023). A financial risk for independent contractors in many jurisdictions is failing to comply with tax regulation. In Ontario, not declaring self-employment income also decreases retirement pension entitlement. Remitting taxes for self-employment affects workers’ future because the Canadian Pension Plan is contribution-based and the payout hinges on what workers put into the plan (El-Attar & Fonseca, 2023). An estimated one in four gig workers in Canada do not understand the tax-related implications of additional income, while 44% plan not to report income (H&R Block Canada Inc., 2023).

Marketplace and on-demand platforms

The technical features and structure of DLPs shape workers’ choices and available actions on DLPs. Ticona et al. (2018) describe two models of DLP: marketplace and on-demand. Authors describe that while there are two main designs, some DLPs comprise a hybrid with aspects of both models. Key differences are that marketplace DLPs utilise sorting to display workers for hire, and encourage workers to promote themselves, while on-demand DLPs manage the hiring process including hiring and assignments or dispatch, as well as worker remuneration and potentially surveillance (Ticona et al., 2018). Marketplace and on-demand forms of DLP care work are both location-based. There is little literature focused directly on the comparison of DLP type, although different platform types can

be observed in studies that sufficiently describe DLPs. For example, gig care workers specifically on marketplace DLPs have been found to experience some autonomy akin to self-employment, in the opportunity to negotiate wages and weigh the pros and cons of accepting jobs (Khan et al., 2024).

Other research has examined global labour markets, finding the online model reflects supply and demand imbalances and presents challenges for collective action (Graham et al., 2017). In DLP care work specifically, Pulignano et al. (2023) investigate the informalisation of care work as it disrupts two established care markets (Belgium and France) and consider there are several costs associated with DLP work, such as lower wages, lack of social benefits, and unpaid labour.

Context: healthcare settings in Ontario

The activities of workers using DLPs to find care work take place in a particular context. DLP care work involves the expansion of the gig economy into the field of healthcare (Seibt, 2024) with direct care offered as an “uberized” service (Glaser, 2021). Informal care provided by gig workers is evident in several jurisdictions around the world (Fudge & Hobden, 2018; Seiffarth et al., 2023), but remains underexplored in the Canadian context with a few exceptions (Lam & Triandafyllidou, 2022).

In Ontario, Canada, homecare services are regularly publicly funded and delivered by employees of service providers. Government austerity measures place limitations on the amount of publicly-funded home care available (Daly & Armstrong, 2016) which may push clients to private care. Another push factor is that insufficient government funding affects the availability of LTC home beds (Daly & Armstrong, 2016), causing a bottle-neck accessing LTC homes. Multi-year waiting lists are the norm in Ontario, where 70,000 new beds are needed at an estimated cost of \$20 billion (Roblin et al., 2022). When individuals privately hire care workers, the employment relationship is a critical consideration.

With Canada’s publicly-funded healthcare, those hiring private homecare workers are more likely to be individuals with higher incomes (Allin et al., 2020). Marketplace DLP workers’ opportunity to access publicly-funded jobs may be inhibited by lack of access to publicly-funded homecare funding (Government of Canada, 2024). In some situations, public funding for hiring care workers may be used by clients eligible for special programs (Jamieson et al., 2021); however, there is a deficit in what is known about these often small-scale and diverse programs in the Canadian context (Kelly et al., 2021). In traditional work organisation, homecare employees experience unequal work conditions compared to hospital and LTC employees, such as lower pay (Zagrodny et al., 2022a). As such, the

division of DLP marketplaces and on-demand DLPs may reflect discrepancies between healthcare sectors. DLPs in the homecare sector are examined in many studies; however, DLP use in institutional settings is not often explored. We found one US-based paper that referred to temporary workers using digital platforms in any institutional setting as ‘gig’ workers; these temporary workers were not employees of the LTC homes (Lien, 2023).

Although domestic and personal care workers are not regulated in the same way other professional workers are, such as nurses, they are both legally entitled to protections under employment standards such as minimum wage and notice of termination (Government of Ontario, 2023). Personal Support Workers (PSWs) in Ontario are not regulated at the time this paper is being written, despite attempts at obtaining regulated status (Kelly & Bourgeault, 2015) and 2021 provincial legislation promising regulation for PSWs (Government of Ontario, 2021). The lack of regulation for personal care workers introduces potential risk for clients regarding the safety and value of care work (Hopwood & MacEachen, 2021).

The aim of this study was to shed light on DLP technology that shapes work for unregulated gig care workers in the specific socio-political context of Ontario, Canada. This research contributes to the literature in two primary ways. First, our paper provides insight into the state of unregulated gig care work in the context of Ontario, Canada, which is largely unexplored in the gig care work literature. Our recruitment experience and findings shed light on the apparent limitations of this market and discuss potential challenges for the emergence of gig care in this jurisdiction. Further, to our awareness, little is known about on-demand DLPs in the hospital and LTC context; therefore, we provide a modest contribution to this area. Second, we build on the typology between marketplace and on-demand platforms described by Ticona et al. (2018) to demonstrate how DLP technology can replicate differences between healthcare sectors, disproportionately disempowering private homecare gig workers compared to gig workers in hospital and LTC, and increasing inequity, while elevating risk for clients or patients in all settings.

We parse the technical mechanisms by which a worker interacts with and through a DLP to examine the socio-technological functions of DLPs for workers. This demonstrates how technological rationality creates the parameters in which DLP care work can occur. Examining two types of DLP care model – marketplace and on-demand platforms (Ticona et al., 2018) – operational in Ontario over the course of this study, allowed us to compare and contrast socio-technological functions on

each model. This contrast highlighted distinctions between marketplace and on-demand DLP designs and emphasised that the two models are used in different healthcare settings. Our analysis reveals an existing disparity between homecare and hospital or LTC work was reproduced through the DLP model. Our findings thus revealed a reproduction of job inequities hinged on DLP model, contributing examples of how Marcusean technological rationality applies to DLPs for care work.

Methods

This study draws on methods from Institutional Ethnography (IE) developed by Dorothy Smith (Smith, 2005, 2006) to critically examine digital care work within the social, legal, economic and political context of Ontario, Canada, and illuminate how two models of platform affect workers and subvert their social power. The lead author conducted 20 in-depth interviews with personal care workers. This analysis focuses on the evidence of actual experiences of care workers using DLPs and the socio-technical functions of DLPs.

Ethical considerations

This study received ethics approval from a Human Research Ethics Board at the University of Waterloo. All participants provided informed consent. None of the DLPs used by participants are named, to prevent identification. Instead, we provide examples of DLPs that appeared to be operating in the industry over the duration of the research study.

Data collection and inclusion criteria

Worker participants were required to have used a DLP as independent contractors seeking work as unregulated care providers in Ontario, Canada within the previous two years. By unregulated, we refer to care workers who do not belong to a recognised profession or lack membership in organisational bodies such as a professional college. By gig care worker, we refer to care workers who are classified as independent contractors and not as employees. Workers must have had a profile or account on a platform where the client or end-user provided job information. To be eligible, DLPs had to have some level of technologically mediated interaction. This could be in the form of on-platform communication between workers and clients, platforms pre-vetting workers or providing skill or certification verification, platforms involved in matching worker and job by various parameters such as geography or skills, as well as technological interactions such as ‘clicking’ to ‘apply’ or rating workers.

To keep abreast of potentially eligible platforms, an industry scan was conducted at several points between December 2022 and January 2024 via internet search using terms such as “PSW, caregiver, care jobs, independent contractor, on-demand, shifts, work, hire, and private care”. DLPs that appeared to be in operation in Ontario, Canada at some point during the progression of this research reflected the dichotomy between marketplace and on-demand models. On-demand DLPs included BookJane (CareNetwork²), Hero Care, and Staffy, which provided workers for hospital and/or LTC. Marketplace DLPs included Bark.com, CanadianNanny.ca, care.com, CareHubble³, eldercare.com, MyCareBase, NannyServices, and Seniorcareconnect.

Participants were recruited between April 2023 – January 2024 using various social media platforms (e.g., Facebook care worker groups, LinkedIn messages), via recruitment posters sent out through organisations that included PSWs (e.g., home care employers, associations), and flyers posted in densely-populated urban locations near healthcare facilities known to use DLPs. We also used paid, targeted Facebook ads aimed at female PSWs and care workers, and snowball referrals. Eight workers were recruited directly from the DLP where they had an account, in an ethics-board approved process involving deception and disclosure prior to obtaining consent⁴. Challenges recruiting this workforce may reflect the market, and potentially a small gig care workforce in Ontario, Canada. The apparent scarcity of gig care workers may relate to several factors like limited gig care job opportunities, hesitancy of workers with certain demographic characteristics (i.e. engaged in under-the-table work or not legally allowed to work) to respond to research requests, or the frequent multiple-job-holding status of unregulated care workers and scheduling availability or job burnout.

We exhausted several means of recruitment, yet we managed to obtain a final sample of participants similar to the sample of other purposively recruited DLP workers in qualitative research utilising in-depth interviews (Orth, 2023). Key for this type of research is obtaining rich information (Malterud et al., 2016; Patton, 1990) and drawing on experiences as opposed to representative breadth

² BookJane’s Care Network is listed as workers from ‘agency partners’ at the time of writing; however, the company previously had their own workforce of gig workers and met inclusion criteria

³ CareHubble is described as a Business-to-Business-to-Consumer model at the time of writing; however, the company previously had a workforce of gig workers and met inclusion criteria.

⁴ With ethics approval and careful procedures, the lead author posed as a client recruiting care workers. When contact was made with a care worker she immediately disclosed the research study and workers were given the free choice to continue or end the contact. Ethical considerations for this approach will be discussed in a future publication.

or quantity (Crouch & McKenzie, 2006). It is important that sample selection is appropriate for the study scope and methods (Sandelowski, 1995) and our focus on depth resonates with IE's detailed attention to workers' lived experiences as an approach to understanding institutionalised processes (Smith, 2020; Smith & Griffith, 2022).

Semi-structured, online interviews were conducted with 20 gig care workers (Table 1). The lead author conducted all in-depth interviews via videoconferencing (e.g. Teams, Zoom). Interviews lasted between 27 minutes to 1 hour and 21 minutes (average 48 minutes) and focused on workers' expectations of working via the platforms and how their day-to-day experiences unfolded. Interview questions targeted the direct use of platforms including processes of signing up on platforms, creating profiles, seeking work opportunities, navigating schedules, and receiving remuneration. The guides were developed by considering the topics in literature that are important to the organisation of gig care work, understanding the processes of workers using DPs, and from input by the Study Advisory Committee.

Table 4: Participant demographics table

Pseudonym	Canadian born	Age	Race or Ethnicity	Care work Experience	App type and jobs obtained
Carmelita	N	25-34	Filipino	< 1 year	Marketplace (0 jobs)
Ifeoma	N	35-44	West African	< 1 year	Marketplace (0 jobs)
Rayola	N	18-24	West African	< 1 year	Marketplace (0 jobs)
Beryl	N	55-64	East African	1-5 years	Marketplace (5-10 jobs)
Heather	Y	45-54	Caucasian	10-20 years	Marketplace (5-10 jobs)
Joyce	Y	35-44	Caucasian	10-20 years	Marketplace (1-5 jobs)
Keyshia	N	25-34	West African	< 1 year	Marketplace (1-5 jobs)
Melody	Y	25-34	Caucasian	5-10 years	Marketplace (1-5 jobs)
Leandra	N	25-34	Eastern European	1-5 years	Marketplace (1-5 jobs)
Reyna	N	55-64	Filipino	1-5 years	Marketplace (1-5 jobs)
Rosemary	Y	35--44	Mixed race	10-20 years	Marketplace (1-5 jobs)
Shelly	Y	35-44	Caucasian	20+ years	Marketplace (1-5 jobs)

Bonita	Y	45-54	Black Canadian	10-20 years	On-Demand (0 jobs)
Ling	Y	25-34	Southeast Asian	< 1 year	On-Demand (0 jobs)
Xaliima	N	35-44	East African	10-20 years	On-Demand (0 jobs)
Amara	N	35-44	West African	1-5 years	On-Demand (5+ jobs)
Beth	Y	45-54	Caucasian	5-10 years	On-Demand (5+ jobs)
Laiba	N	18-24	East Asian	1-5 years	On-Demand (5+ jobs)
Melanie	Y	35-44	Caucasian	< 1 year	On-Demand (1-5 jobs)
Pia	N	25-34	Fillipino	5-10 years	On-Demand (5+ jobs)

Analysis

We examined the ways that technology influences DLP gig care work. Our analysis included mapping the social actors involved (Campbell & Gregor, 2002). The lead author engaged in mapping processes by drawing a visual representation of the actors involved in the technologically mediated DLP environment, making note of the roles actors played, and connecting the actors with lines, arrows and labels to represent relationships and processes. In this brainstorming-style exercise, we included consideration of the relations of power between DLPs and other social actors. This IE method is well-suited for examining the experiences of participants and the situations of their work because it contributes to explicate how social relations unfold (Smith, 2005). We utilised this approach to study a work environment where social relations occur through digital exchanges and technological functions. A pragmatic focus on actual events and actions, key to IE, allowed us to home in on specific and tangible socio-technical functions of DLPs. We used Marcusean theory as a lens to understand the implications of these technologies for workers.

Each interview transcript was transcribed verbatim and independently coded by the lead author (PH). A second coding was conducted by a graduate student researcher (AD) and compared with the lead author's coding to ensure reliability. Based on our interview guide and research focus – how the technological functions of DLPs shape work – we had some a-priori codes (e.g., “App sign-up” and “App punishments”). We also identified codes inductively (e.g., “No jobs on app” and “Shift details”) through an iterative process involving re-reading and familiarisation with transcripts, resulting in hybrid approach with both a-priori and inductive code development (Fereday & Muir-Cochrane, 2006).

PH, EM, IB, CM and BY all discussed how interviews about using the DLPs represented participant roles and the interactions between social actors. From our data about tangible, platform-based activities reported by participants, we had information about the specific technological ways DLPs influenced the actions workers and clients could perform on different platforms.

For this paper we draw on codes focused on workers' experiences using DLPs and their activities (e.g., sign-up, searching, negotiating, applying, and accepting jobs.) In these codes, the socio-technological role of DLPs shaping work can be observed. This highlighted DLP functions and enabled the lead author PH to identify key activities and points of platform-worker interaction with and via the DLPs. These data were shared with all authors, who identified further patterns and discussed interactions and meanings. PH was primarily responsible for analysis while EM, IB, CM and BY contributed further analytic insights to situate findings in a wider social context.

Processes identified as part of each type of DLP surfaced some nuanced aspects of the DLP setting which shaped the social position of workers. Turning back to workers' experiences as evidence of these procedural and structural DLP aspects contributed to explicating how social relations unfolded (Smith, 2005) while Marcusean theory (Marcuse, 1964; Marcuse & Kellner, 2001) provided a way to understand the implications in a work environment where social relations are constructed through digital exchanges and functions. This paper compares DLP functions between two care-work platform types: marketplace and on-demand. Each has unique socio-technological functions that contribute to shape work conditions; however, each platform type also aligns with a particular healthcare setting.

Findings

Utilizing Marcusean theory led us to findings about how technological rationality resulted in two types of DLPs, with distinct characteristics for home care versus institutional care settings. Each type of DLP deployed technological rationality to reproduce domination over workers to different degrees. Marketplace models – used to match care workers with private homecare clients who had their own platform accounts – provided information about the care required in the job. On-Demand models – used by publicly funded organisations seeking to hire independent contractors for a one-time job – posted shifts on behalf of organisations and conveyed applicant information back to the organisations. Workers experienced challenges on both marketplace DLPs and on-demand DLPs; however, marketplaces ultimately had worse work conditions. Comparison of institutional settings using on-

demand DLPs and homecare settings using marketplace DLPs illustrated how technology indeed replicated existing organisation of work (Marcuse & Kellner, 2001, pp. 46-47).

Marketplace DLPs

A key aspect across all participant experiences was the uncertainty about access to jobs. Marketplace gig care worker Rayola had been unable to find work via DLP, saying:

“I think it's not easy, self-employed.... And you know, for some self-employed you're not sure, even if you get a job today, you're gonna get another one tomorrow.” (Rayola, Marketplace).

Her comment reflects the transience of work, in that a current or even repeat job opportunity has no certain permanence. Our workers also spoke about having limited options in terms of platform work choice, and some workers rarely saw jobs in their geographic area.

Marketplace DLP workers worked exclusively for individuals seeking private home care. Workers spoke about using profiles to indicate the type of work they were willing to perform, their desired wage, hours of availability, and preferences for work, such as location. Beryl experienced filling out her profile as involving making selections:

“...you sort of - sort of tick the boxes accordingly” (Beryl, Marketplace)

Joyce described the marketplace DLP she used as having options for verifications, although the verification was basic identity information and not related to workers' competence or skill:

“... so here it says there's a checkmark, and it says, 'this has been verified.' So my driver's license and my phone number has been verified.” (Joyce, Marketplace)

In Joyce's case, the platform indicated on her profile that her driver's license (which in Ontario includes address) and her phone number were verified. There was no means of verifying additional information such as training or certifications.

Marketplace DLPs and money

Pay was an important consideration for most workers; however, they had little control over their pay rate. Theoretically, workers could set their DLP pay rates as high as they liked. For instance, one marketplace worker said, "...you actually get to create your - to pick your pay wage" (Ifeoma, Marketplace). However, marketplace workers regularly experienced that - despite being able to set their asking wage on the marketplace DLPs - jobs paying at high rates were not available. However, the same job would be posted at varying pay rates.

"So I put the price range, let's say minimum, I would see this post from a specific person. And then when I will change the range to a higher payment, I will still see the same. The same posting from the same person with a different price In the beginning, I just put close to minimum pay. And then when I noticed what is actually happened, then I put a higher rate and then because I would still get the same postings, - not 100%, but some of them, like a few out of out of 50 postings that would appear in my in my search, I would find a few, maybe three to five, postings that were the same."
(Leandra, Marketplace)

Leandra encountered some of the same jobs when searching for jobs while setting different wage rates. It is possible the DLP included one job in search results for a range of wage brackets to ensure the job appeared in more searches, but this would disadvantage workers who found jobs searching at lower rates when the potential employer was willing to pay more.

With Carmelita, even when she met one client for an interview, the wage remained unspecified:

"He told me that I gonna stay - live in there 24 hours, but they - will gonna pay me only for 40 hours. ... Yeah, but I got to stay there 24 hours. Five days. I don't want that. He cannot tell me what he is gonna pay me for that. For the hours - he asked me what I'm gonna expect as my salary there." (Carmelita, Marketplace)

Marketplace DLP workers' experienced that they could indicate the wage they sought, yet opportunities that met those criteria were limited or not available at all. Wages were a strong motivator for workers' approaches to job seeking. Competition was a passive factor on marketplace DLPs, because the rate set by workers affected what jobs would show up in their searches.

Finding cash-paying jobs was the reason for using the marketplace DLP for some workers. Among marketplace workers, several spoke about seeking cash jobs or "under the table" (Reyna, Marketplace) work, describing that they did not declare the income. Rosemary spoke about how

declaring additional income would be detrimental as it would reduce her income-based social benefits. Experiencing her low income as insufficient to keep up with the cost of living led her to seek cash jobs in addition to her regular employment:

“So, I like a cash job because then that's mine, and I don't have to claim it basically. I know that sounds so bad, but I'm struggling.” (Rosemary, Marketplace).

Several marketplace gig care workers described working ‘under the table’. Some of the marketplace workers were aware there was a \$30,000 earnings threshold before they were required to charge and remit General Sales Tax or Harmonized Sales Tax; however, they identified that this was not applicable in their experience, given the income they earned was below the threshold for charging sales or service taxes.

Marketplace DLPs and location

Geographic location was another important determinant of work availability. Marketplace worker Joyce used the DLP to demonstrate to the researcher (PH) the experience an employer would have searching for a worker using a postal code. She entered her own postal code and searched for workers within 50 km to show that her own profile was listed at the top based on nearest location:

“I'll show you on the app, how you can kind of change your postal code Put in (own postal code) when I go to (own location), I want to look – so you can look within these kilometers. Do you see that? (*Interviewer: Okay, yep.*) Yeah, we'll keep it at 50. And then yeah- I'm right at the top here” (Joyce, Marketplace)

Joyce's experience was that the DLP was able to search for workers based on location. Workers were also able to search for jobs based on geographic location and postal code; however, some experienced that if there were no jobs within that area the platform would show jobs outside of range. Workers often considered distance as a factor when deciding whether to apply for jobs.

On-Demand DLPS

On-Demand models involved publicly funded organisations seeking to hire independent contractors for a one-time job. Workers experienced challenges finding jobs. For instance, Ling spoke about being uncertain what – if any – opportunities would arise for her:

“Oh, if I have a lot of jobs, as like, PSW, maybe, I can, like, continue using this as a nurse and keep these because everyone's like ‘Oh agency nursing, [the nurses] make so much money.’ And if I can show them, I started from the bottom and made my way up. Yeah, but that's what I plan to do. But since I'm getting nothing on the app, then I don't know if that's possible at all” (Ling, On-demand)

Ling was not keen on gig work but felt that taking shifts as a PSW while training to be a nurse might garner some sense of recognition and lead to better work opportunities in the future. Although she envisioned potential for furthering her career via DLP work, she had not obtained any shifts on the DLP.

On-demand platform sign-up required documentation and sign up for prospective workers was a process most considered somewhat arduous. Laiba’s experience was that the process took two to three hours, not accounting for time and money to acquire or gather the proper documents:

“It's quite a lot of work. So that's why people may choose not to do it, because they - you have to give an assessment, you have to upload so many documents, you have to do your own taxes. Otherwise, I think it's pretty good. It's just the onboarding process that takes- that's a little lengthy. ... So they have to, if they need a criminal record check, they need to get it, they need to go to the police. They need to get it - it takes like two three weeks; sometimes in (location), it takes even longer.” (Laiba, On-demand)

Police record checks were a barrier in a different way for Shelly, who noted that the platform she was using only considered police checks as ‘up-to-date’ for the most recent six months:

“I tried to accept a shift. And it kept denying me. ... Why all of a sudden, today am I not being able to accept a shift? It ended up being that my police check was now out of date. And by out of date, I mean, more than six months old. Which is just- it's disheartening. ... It just so frustrating. It's frustrating. It's frustrating even talking about it...” (Shelly, On-demand).

On-demand platforms allowed for unregulated care workers to register and be pre-vetted as ‘qualified’ workers. These DLPs provided the worker participants with job postings for which workers would apply via ‘clicking’. Subsequently, the organisation (e.g., hospital or LTC home) would select a worker.

On-demand DLPs and money

On-demand DLP workers could set the rate of pay they wanted, although they experienced that this limited what positions appeared on the DLPs as available:

“I don't see anything for tomorrow, or anything. If anything comes up. It's like for tonight for the next hour. But I set my rate on (DLP) ... you could say like, which minimum rate do you want to be sent jobs for? I put \$22. And I get very little. Part of me thinks maybe I should go back down, to like maybe like \$18. But for \$22 not a lot comes up, except for emergency shifts. Like if it's 6pm, those are like, ‘Shift needed for 7:30.’” (Ling, On-demand)

Ling showed the researcher (PH) how a live search produced no work opportunities, and she considered that she was limiting what she would see based on her wage rate. She found it was most often last-minute ‘emergency’ shifts (posted close to the time of the shift beginning) that offered the wage she wanted.

In the category of on-demand work, pay was generally clearly stated. However, some on-demand workers faced a lack of transparency about how they would be remunerated. In the case of on-demand worker Ling, being paid via gift card was a confusing form of payment:

“Before when I signed up, they said they give you Visa debit gift card, and then they put your pay on like a Visa gift card ... I was super confused about it. ... they changed it recently to an e-transfer” (Ling, On-demand)

Shelly, another on-demand worker, experienced a requirement to have a Visa debit card to receive payment for shifts. For her, this was one of a few issues she faced using one DLP and contributed to frustration with the platform.

Competition was an important issue for on-demand DLP workers. Amara discussed multiple people attempting to apply for the shift at the same:

“...there are a number of PSWs who are applying for that same shift, right. Because it pops up on everybody's phone. Right? So the fastest finger gets it.” (Amara, On-demand).

Laiba's experience on a DLP was similar. Her experience illustrated how relatively higher pay rates and co-worker interaction, management and duties made some jobs more desirable and thus more competitive. She and her friends experienced not being able to get a shift at a desirable location because other people got the opportunity first:

“.... so that's why you have to be on your phone all the time, especially during - oh my god while working at the vaccination clinic. Everyone knew they were getting paid so good. So everyone is applying right? And they do really. Sometimes they - all my friends were like, they didn't get any shifts. It's because it's already gone. ... when we're at work.... And everyone's like "SHIFT!". So everyone - no one's listening to the huddle - And everyone's like, on their phones applying for the shift. Those days it was fun.” (Laiba, On-demand)

Over a period of a couple years (after COVID-19 created higher paying DLP jobs), decreasing remuneration rates for DLP jobs also contributed to why Laiba no longer used the app:

“Also the regular job and the job at (the DLP) now, they pay the same rate. So I'm like, I don't really go for (the DLP). Because before (the DLP) used to pay like so much more. So

that's when I chose (the DLP) over my regular job. But now like, I don't think (the DLP) is for me. So I haven't really been picking up shifts from (the DLP) right now.” (Laiba, On-demand).

For on-demand DLP workers, only the first person to apply would be considered for the job. Even at this point, the worker did not control if they were selected for the job; the information would be sent to the potential job site, where a manual decision was made whether to offer the worker the shift or not.

At this stage, there were several unknowns for workers. What information could the potential employer see? Some workers suggested that the job site would be able to see any previous reviews or ratings, qualifications, documentation (e.g., certificates, proof of vaccine), and past shifts worked. However, they were not in control of what information in the DLP was shown to the potential employer.

On-demand DLP workers usually identified themselves as independent contractors and described paying income taxes and saving for income taxes.

“...it pays me right away after a shift, then I get paid right away, which is amazing. Um, the only thing that you have to think about is to set aside money for tax, because they don't deduct tax.” (Pia, On-demand)

One on-demand DLP worker said that she declared DLP income; she noted that the app kept a record of her earnings as an independent contractor:

“You have to pay your tax because it's independent You pay your tax by yourself. And, like, you know, people that does taxes, right, during tax season, you have to declare, because on your phone, you see how much you've made.” (Amara, On-demand)

Within the on-demand sphere, one DLP indicated the platform had some capacity to calculate workers' tax payments. Laiba described that although there was an option to "enable taxes", it was not clear what it meant. She demonstrated that a button appeared as a choice for workers in the app:

"...I think now they changed it. They actually- there is an option where you can like include your tax with it. So here, there is an option where it says tax. And then it says enable tax, right. So now you can enable your own taxes...." (Laiba, On-demand).

Laiba was unsure of what would happen if she selected the option to enable taxes. It was unclear if the DLP company would remit taxes to the government, hold them back to pay out to the worker at a later date, or provide a calculation for workers to guide them on how much to save for paying taxes:

"I'm not so sure about that, because I never enabled taxes myself," she said.

Most on-demand DLP workers said they declared their income, which would ensure they paid pension plan contributions. As well, on-demand platforms appear to sometimes provide information or tools to facilitate declaring taxable income.

On-demand DLPs and the work site

The work site was an important factor in applying for on-demand shifts. Among the on-demand DLP workers, several spoke about returning to jobs at the same institution repeatedly. Some looked for postings at specific sites based on their preference for the job due to good experiences, the wage, or a supportive workplace environment. The opposite was also true – workers who had bad experiences would not consider jobs at those sites.

For Beth, looking at job details to decide if it was a site she wanted to go to was important. She had some experience with an on-demand DLP that provided details about the work location:

"... they want people to actually go to (name of LTC home). Because nobody wants to go there. And so they'll put the name of the unit as well...which I think is a good idea, because I will not go back to certain units. I might go to a different unit because they're not all run the same. Because I've had two different experiences there. But I won't go knowing I might get

stuck on the one where I'm standing there waiting for somebody else all night. The other one was fine” (Beth, On-demand).

Jobs appeared and disappeared quickly from platforms. Unfortunately, looking at more information about the site sometimes led to the opportunity passing before Beth could apply to the job:

“So I would poke it - or like press it to read it and find out exactly what I'm signing up for. And by the time I read it and press it, it was already gone. That was a little frustrating So sometimes I would miss out because I'm not quick enough. Because they just want to work and I'm picky. It's held against me in a sense, because, yeah, it takes me a minute to read it and think ‘Okay, that shift Is there at this ward and - Yes, I do want it’” (Beth, On-demand).

This fast-paced environment pitted more desperate workers against more selective ones. Multiple people were attempting to apply for shifts at the same time. If workers applied for a shift and then it was confirmed, they were expected to take the job or risk having it count as a cancellation.

Workers described procedures similar to each other and used some of the same words for processes on DLPs. Amara described the process of the DLP she used step-by-step, speaking about “applying” for “shifts” and companies “confirming” the shift:

“I just go to my app, then I'll search for notifications. Because when there are shifts, it just shows up on the phone. It gives a location, the time of the, of the shift, and all of that. So if it's something I want to do, then I'll apply for the shift, I'll apply for it and wait for confirmation. when it's confirmed, then I'll have to accept it... That way the app knows that ‘Okay, fine.’ So, this job, it is taken by me.” (Amara, On-demand).

Most workers experienced a waiting period between “applying” for a shift and having the shift “confirmed” or “awarded”. A couple workers had worked in scheduling or were familiar with how the process was handled by the work location; however, they were not certain if the DLP did anything or just passed their information directly to the organisation when they applied to a job:

“I think it goes to the hospital because they get to pick which PSW they will pick for the shift. Yeah. Because it - when you apply for a shift, it's going to go to whoever is requesting the shift, which is for example, the hospital or the unit. And then they would see your picture, your experience, if you've worked in the unit before. they will also see like, if you have a lot of cancellation, if you... ‘no show’” (Pia, On-demand).

In all, on-demand workers experiences included: that sign-up was labour intensive and verification involved waiting for manual document review; the expectations and operations of the DLPs were at times opaque and subject to frequent change; and information about jobs and payment was not always evident.

Comparative findings

We found several disadvantages of marketplace DLPs compared with on-demand DLPs. Notably, while marketplace DLPs relied almost exclusively on workers’ honesty, on-demand DLPs had more stringent requirements for verification of workers qualifications. Marketplace DLP workers saw misleading information when they searched by wage, while on-demand DLP workers knew the fixed rate of pay with certainty. Geographic search parameters were comparable, although marketplace users sometimes experienced their search restrictions were ignored or overridden by the DLP. In terms of site, marketplace workers went to private homes without knowing what they might encounter, while on-demand workers were provided with a reasonable amount of detail about the site. We present key differences between marketplace and on-demand platforms in tabularised form to facilitate comparison (Table 2).

Table 5: Marketplace versus on-demand DLPs

Factors	Marketplace DLPs	On-demand DLPs
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Opportunity	Lack of opportunity	Competition for opportunity; decreasing opportunity since peak of pandemic; perception of building reputation via experience (career progress)
Sign-up process	Profile with job preferences as “ticking boxes”; verification of phone number and driver’s license	Arduous application process with submission of documentation such as proof of education qualifications, police reference checks, vaccination certificates
Wage preference	Could search by wage; however, some of the same jobs appeared with various wage rates	Could indicate preferred rate of pay but this reduced opportunity; short notice shifts paid higher wages
Pay security	Wages not firm; negotiating and uncertainty	Wage posted; paid through app Form of payment was via Visa gift card or debit card in two incidences
Fiscal accountability	No financial transactions through DLP; no record of wages	Paid via DLP; features for tracking for income tax purposes
Location and site features	Location search capacity; private households, homecare setting	Details about type of job and assignment available; being particular (not selecting quickly enough) could cost worker lost job opportunities; regulated institutions; publicly funded hospital or LTC setting

Discussion

Our analysis considers how the structure and functions of two types of DLPs – the marketplace DLP model and the on-demand DLP model (Ticona et al., 2018) - exert socio-technical control over workers, or constrain workers capabilities. Approaching this with a Marcusean lens that views DLP technology as the extension of existing social relations that disadvantage workers in capitalist society helps to unveil how DLP functions rule workers and allow companies to maintain domination of the workforce. Marcuse notes that through technology, people become objects that are commodified, and the technologies “...under which they are subsumed veil the particular interests that organize the apparatus. In other words, technology has become the great vehicle of reification...”(Marcuse, 1964, p. 184) and in this case reifies job disparity between home care settings and institutional care settings.

Limited opportunity

Workers on both marketplace and on-demand DLPs experienced less than their ideal opportunity. While on-demand workers had observed a decline since the peak of the COVID-19 pandemic, they generally had more job opportunities. It is important to note that the lack of jobs is a labour market issue distinct from platform control (Wood, 2019); however, we suggest it is misleading for platforms to promote flexibility when there is a lack of opportunity. The availability of workers compared to the sparsity of jobs points to a potential oversupply of on-location DLP workers, like that observed by Wood (2019) among online DLPs. This abundance of labourers in a competitive market is a distinct disadvantage for workers, and has been noted in the global supply of online workers (Graham et al., 2017).

The individual implications for care workers using DLPs to look for work are both economic and social, as Pulignano et al. (2023) so aptly illustrate, and yet DLPs also exert pressures on the labour market and formal employment. It is not so much the technology itself that is problematic, but the systemic change to the organisation of work relations and the stripping of hard-won employment rights and protections through its use. Marcuse described that although technology itself can be utilised for different purposes, when something is so pervasive it is embedded in culture or ‘universal’ it makes it seem as though that is the natural or only course for technology to follow.

“An electronic computer can serve equally a capitalist or socialist administration [...] when technics becomes the universal form of material production, it circumscribes an entire culture; it projects a historical totality--a "world"”(Marcuse, 1964, p. 171).

The technology deployed by DLPs in capitalism reduce labour to the completion of gigs, scaling up structure that positions workers as independent contractors and disempowering care workers. A concern is the spread in healthcare, as well as with the adoption of the on-demand model by publicly-funded institutions such as hospitals and LTC homes. This elicits the question of how neoliberal governments may utilise DLPs to informalise work in any field.

In the context of Ontario, there are indications that other factors may have contributed to the reduced job opportunities experienced by participants. The time of declining opportunity coincided with public awareness about exorbitant fees charged by staffing agencies to publicly-funded LTC and hospitals, which resulted in pressure for hospitals and LTC homes to spend less for on-demand workers (Smith Cross, 2023; Welsh, 2023). Pending legislation - requiring staffing agencies and recruiters to be registered with the government (Government of Ontario, 2024) - may also contribute to the reduced on-demand work in these institutions. Other opportunities such as vaccination clinic jobs may have also declined.

Verification and vetting: Is this arrangement safe for DLP users?

We found that marketplace DLPs used in homecare offered minimal checks of workers, consisting at most of a phone number and a license (address) verification. Workers felt they were at risk from sharing personal contact information with strangers, and particularly vulnerable when meeting potential clients in person. This aligns with other research demonstrating gig workers may be exposed to scams (Ticona, 2022). Comparing this with on-demand platforms – which had more thorough vetting of workers and required documentation – we question why marketplace platforms would not implement a mechanism for ensuring the legitimate identity of clients and potentially, credentials of workers, to improve safety and security for all parties. Rather, they seem content to allow full responsibility to rest on workers and clients.

On-demand platforms are not completely in the clear, despite their comparatively more diligent vetting. Workers were not required to provide references from previous employers, which has been

identified as an important issue given that not all acts of negligence or wrongdoing are captured by police record checks for unregulated care workers (Hopwood et al., 2022). Future research could examine if DLP practices for vetting workers are adequate given that publicly funded institutions are bringing DLP workers in to care for people.

Money matters

Marketplace workers in our study experienced seeing the same job at different wage rates, demonstrating what appears to be a deliberate effort to obtain workers for the lowest cost. While a benefit to clients, this reveals a lack of upfront transparency for job seekers who already face negotiating for pay. In contrast, on-demand workers knew exactly how much a job would pay when they signed up, although the form of pay was problematic for two users who had earlier experienced that wages would be paid via a gift card or Visa debit card. Posting jobs with a pay range or a firm wage may improve marketplace workers' circumstances; however, as homecare work is notably lower paid than hospital or LTC work in Ontario (Zagrodney et al., 2022a) marketplace workers are likely to continue to face pay inequity as long as the sector discrepancy persists. In other words, conditions created by brick-and-mortar companies in the healthcare labour market are replicated by the DLPs.

Similarly, the potential for homecare work to be set up as a cash job and not declared employment income transfers directly to marketplace DLPs. Marketplace DLP workers in our study were largely not aware that under Ontario government's specific regulation for domestic workers they are legally entitled to minimum wage, notice of termination, sick days and various other protections under employment standards legislation (Government of Ontario, 2023). Additionally workers were unaware that failing to pay income tax could adversely affect them in the years when they would be eligible to start receiving retirement pension (El-Attar & Fonseca, 2023). We argue that the technology could be deployed to inform workers of their rights and responsibilities. In Ontario, domestic workers are entitled to be employees, paid at least a minimum wage with employment standards and social benefits such as employment insurance (Government of Ontario, 2023). Further, marketplace DLPs could implement technology solutions for tracking hours and reporting income to ensure that the worker-client employment relationship, much the way on-demand platforms did.

Our findings that on-demand workers were offered higher wages for short-notice shifts is reminiscent of “surge pricing” in other gig work (Chen & Sheldon, 2016; Guda & Subramanian, 2019).

When is a platform worker not an independent contractor?

While marketplace workers theoretically had the ability to search by location, to negotiate and accept or refuse jobs on their own terms, platforms exerted some controls in that they sometimes gave an illusion of choice. For instance, workers could set up profiles with preferred wages even though the platforms would show the same job at different wage rates. Workers could also identify geographic areas in their searches, but marketplace platforms would sometimes override the distance workers inputted to feature further jobs. However, these are perhaps moot points given Ontario’s regulation for domestic workers to be entitled to work as employees. By not introducing information about employment rights and facilitating weak or meaningless forms of ‘verification’, marketplace DLPs’ infrastructure contributed to institutionalise the precarious positions of workers (Murray et al., 2023). Further, by overriding workers’ ability to search according to desired parameters or manipulating the apparent wages for jobs displayed to workers, platforms disempowered marketplace workers’ agency.

The experiences of workers who used on-demand DLPs to find jobs revealed some illuminating issues related to the DLP classifying workers as independent contractors – an active area of debate surrounding gig workers’ employment status (Halliday, 2021; van Doorn, 2022). A key issue in Ontario, Canada is that temporary agency workers are covered by employment standards legislation while gig workers are not (MacEachen, de Rijk, et al., 2022). The DLPs used by gig workers in our study described workers as independent contractors on their company websites, and workers were aware that they were classified as independent contractors. However, how the technology functioned calls into question if some companies acting as DLPs are just temporary help agencies using technology: on-demand DLPs manually reviewed worker documentation, workers manually applied for jobs by clicking, and although the DLPs ‘automatically’ sent the applicant to the client-employer (hospital or LTC) the workers had to be manually approved for positions. In these ways, on-demand ‘DLPs’ lack defining characteristics of platforms and only in (arbitrarily?) labelling workers as independent contractors do they seem to meet any DLP criteria (Meijerink & Arets, 2021). It is important to discern when gig workers are independent contractors and distinguish this from temporary employment agencies – a grey area in the sole study we found about ‘gig’ work in LTC in

the US (Lien, 2023). We found that some on-demand DLPs appear to operate much more like temporary employment agencies than DLPs and suggest this area needs further investigation given the blurriness between agency and DLP and the importance of worker classification for worker social protections.

Strengths and limitations

This paper contributes to the literature about care work platforms in the Canadian context by comparing marketplace DLP and on-demand DLP functions and highlighting that DLP models are stratified by healthcare setting in Ontario, Canada. If this stratification occurs in other jurisdictions may warrant further investigation. Our data was rich because we drew on methods from Institutional Ethnography (Smith, 2005) to examine workers' direct experiences and elucidate platform functions in two settings via two DLP models. Marcuse's theory of technological rationality allowed us to analyse how these different technological functions in different healthcare settings reified power relations, positioning our findings to have broader implications and shed light on worker domination via DLPs.

Consideration of how immigration policy and legal work status may constrain work options (Orth, 2023), and examination of underemployment or deskilling for immigrant care workers (Walton-Roberts, 2020) would enhance future gig care work research in Canada. Additionally, quantitative assessments of this unregulated population of informal workforce is important because comprehensive data about the immigrant health care work force in Canada is vital for sustainable and ethical immigration and workforce development policy (Bourgeault et al., 2023). We did not look at ratings because these derive from input by a client, although they are deployed by platforms for things like ranking workers (Wood & Lehdonvirta, 2022).

Conclusion

This research illustrates how two DLP models further embed work inequalities between homecare compared with LTC or hospital work, and 'platformise' unregulated care workers who work via DLPs. The re-production of inequities in homecare compared with LTC or hospital care are reflected in worse job conditions on marketplace DLPs in comparison to on-demand DLPs. Our study contributes to a small body of literature differentiating these two platform types and provides

evidence of how healthcare structures are related to the use of different gig platform models. By linking platform type to care sector and identifying the inequity in both, we add to the platform typology literature about on-demand and marketplace DLPs, and consideration of what makes jobs better or worse in gig care work. To borrow from the work of Marcuse, DLPs normalise capitalism to such an extent that their dominance over workers in terms of limited functions and technological constraints becomes a foregone conclusion – a technological rationality effectively constraining worker autonomy (Marcuse, 1964, pp. 175-176). In all, DLPs maintained the locus of control; they owned the means of ‘production’ which was technology for using worker and client data to match (over)supply of labour to demand for care in ways that benefitted the platforms but had costs for workers as well as clients.

Notes

BookJane’s Care Network is listed as workers from ‘agency partners’ at the time of writing; however, the company previously had their own workforce of gig workers and met inclusion criteria

² CareHubble is described as a Business-to-Business-to-Consumer model at the time of writing; however, the company previously had a workforce of gig workers and met inclusion criteria.

³ With ethics approval and careful procedures, the lead author posed as a client recruiting care workers. When contact was made with a care worker she immediately disclosed the research study and workers were given the free choice to continue or end the contact. Ethical considerations for this approach will be discussed in a future publication.

Chapter 4 (Manuscript 2) Risks of Hiring Self-Employed Digital Platform Workers in Healthcare Organisations

4.1 Overview

Background: Hiring temporary workers for hospital and Long-Term Care (LTC) homes comes with risks for healthcare organisations and implications for the quality of care provided. This paper addresses the use of temporary workers, often called “agency” workers, in hospital and LTC homes in Ontario, Canada. We use the term temporary to encompass both temporary agency employees and self-employed digital platform (DP) workers who take shifts in Ontario health care organisations.

Methods: This qualitative Institutional Ethnographic research aims to answer the question, “What are the risks for hospital and long-term care organisations related to hiring temporary staff via digital platform?” We conducted in-depth interviews with 18 key informants and used thematic analysis to consider the risks for organizations.

Results: We found hiring temporary workers is risky because it does not always provide reliable or qualified staffing for organisations. Additionally, our data showed that using DPs is risky for healthcare organisations because staff providing care are unfamiliar with the facility and this can impact care quality and safety. Lastly, we found that there is risk of hiring temporary self-employed workers without workers’ compensation coverage because this can be a legal liability for organisations.

Conclusions: Overall, we demonstrate that hiring a temporary workforce in hospital and LTC lacks safety, quality and security for the organisations responsible for providing care.

4.2 Introduction

A constellation of interacting factors including difficult work conditions (e.g., wages, burnout), attrition, exacerbated by a training pipeline unable to provide enough quality workers, are key challenges for building and retaining adequate healthcare workforces across the globe, leading to severe shortages (Bowlis et al., 2024; Roth et al., 2022; Thwaites et al., 2023; Tomblin Murphy et al., 2022; Treuren, 2024; Zagrodny, 2022). These workforce shortages occur in multiple sectors including acute, home and long-term care (LTC), among different types of workers but especially those that predominate such as nurses and unregulated care aids. Due to these workforce shortages,

hospitals and LTC homes have turned to hiring temporary staff (Almost, 2024; Armstrong et al., 2023; Bowblis et al., 2024; Longhurst, 2025). This has resulted in increased reliance on hiring workers from temporary employment agencies or via digital platforms to supplement staffing.

There is increasing use of temporary workers by healthcare organisations internationally (Bajorek & Guest, 2019; King et al., 2017; Ma et al., 2023). Statistics Canada reports show that the use of temporary workers (such as agency workers) has grown in Canada significantly. Temporary workers in health care and social services are estimated to account for around 11% of the workforce in 2024, with approximately 12,100 more temporary workers than there were in 2020 (Statistics Canada, 2024). Across Canada in 2023, hospitals and LTC homes used at least 472 agencies to provide nursing staff and some of these agencies provide other types of staffing (e.g., Personal Support Workers) as well as nurses (Almost, 2024). Given the growth of agency staffing in Canadian health care, it is important to better understand the complex landscape of the growing forms of temporary work in the healthcare field.

4.2.1 Temporary workers in health care and their impact

The literature examining temporary work broadly in hospitals or LTC primarily focuses on agency workers in the field of nursing. The impact of the reliance on temporary workers on organisations such as hospitals and LTC homes is only beginning to be understood but includes primarily the implications for increasing staffing costs. A September 2024 report on agency nursing in Canada estimated that \$247.9M was spent on agency nursing staff in 2020-2021 compared to a projected \$1.5B for 2023-2024 (Almost, 2024). In the Province of Ontario from 2013 – 2023, public hospital spending on agency staffing has doubled to more than \$9 billion while investment in permanent staff has lagged behind, increasing by only six per cent (Longhurst, 2025). A US study found self-employed temporary nurses opted for temporary work due to higher wages and freedom of choice; however, for the facility, consistency of care and budgetary concerns were problematic and employees' workloads increased (Lien, 2023).

Studies also illustrates the adverse impacts for employees in traditional work arrangements who work with temporary workers in the healthcare sector. A Canadian study found that temporary agency staffing has led to existing staff having to train agency staff to work at the site while still completing their own work because temporary workers lack sufficient orientation (Lightman, 2022). Bringing in temporary staff also disrupts effective and efficient teamwork (Armstrong et al., 2023). A Swiss study

found working with temporary nurses was associated with permanent nurses feeling less committed to their employers, and more likely to perceive their own tasks as being unreasonable or unnecessary (Gahrman & Klumb, 2024). A US study of temporary nurses found that while permanent employees could be supportive and helpful to the temporary nurses, the temporary nurses felt employees were envious of their wages and could be hostile (Gan, 2020). Equal treatment for temporary workers and existing employees in LTC has also been found to be important for preventing status comparison and competition (Lapalme & Guerrero, 2019).

Hiring a temporary workforce also has implications for quality of care and patient safety (Beauvais et al., 2024). Use of agency nurse aides has been found to be associated with lower quality of nursing home (Castle et al., 2007). There are also implications for care quality associated with a lack of continuity of care; patient outcomes and satisfaction have both been tied to continuity of care in LTC (King et al., 2022).

4.2.2 Worker injury and compensation considerations

The increasing temporary nature of healthcare work also has implications for compensation for workplace injuries. A comprehensive review of healthcare aide/personal support worker literature in Canada found that they experience high rates of workplace injury even more than Licensed Practical Nurses or Registered Nurses (Hewko et al., 2015). Most common are musculoskeletal injuries; while bites, bruises, scratches and cuts and psychological trauma are also commonly reported (Hewko et al., 2015). Nurses and residential care workers⁵ are at a particularly high risk of injury; much higher than, for instance, hospital workers or even construction workers. In 2024, the workers' compensation injury rate for hospital employees was 3.72% with almost 10,000 claims (Workers Safety Insurance Board Ontario, 2025a). [Note that different organizations use different terms for unregulated care workers in different contexts. i.e., above, WSIB uses "nurses and residential care workers" as one category.] Residential construction had just over 2,100 claims during 2024 with an injury rate of 3.02% (Workers Safety Insurance Board Ontario, 2025b). In contrast, the workers' compensation injury rate for Nursing And Residential Care Facilities was 8.85% with approximately 12,000 claims (Workers Safety Insurance Board Ontario, 2025c). Based on these statistics provided for permanent

employees, it can be inferred that workers without workers' compensation coverage performing the same jobs are also at high risk of injury.

Training for staff can be important for preventing workplace injury. An international review found factors such as work organisation, task and workload, and organisational safety programs and training have been associated with workplace injury for healthcare workers (McCaughey et al., 2016). A specific concern with bringing in temporary workers who are self-employed is these workers may not have workers' compensation coverage in contexts where injury rates are high and rising. Under the Workplace Safety and Insurance Act, 1997, Temporary Employment Agencies are required to pay premiums for their workers in accordance with the classification of the job they are actually doing at the client employer/workplace (Workers Safety Insurance Board Ontario, 2025d). Self-employed workers can register for voluntary workers' compensation coverage when they are considered independent operators by the Workers' Safety Insurance Board (Workers Safety Insurance Board Ontario, 2024). When there is an absence of no-fault workplace safety insurance provided by workers' compensation boards, employers could be held liable for workplace injury or illness if a worker pursues a lawsuit against them and it is successful. According to legal experts, independent contractors can choose to pursue personal injury "tort" claims versus workers' compensation claims; this is more advantageous for workers than workers' compensation in Ontario in some cases, but exposes the workplace to potential financial liability (Preszler Law, 2024).

4.2.3 Self-employed care workers on digital platforms

Although there is literature about the precarious work conditions of healthcare aides/personal support workers which covers low wages and part-time positions (Zagrodny & Saks, 2017), to the best of our ability we have not been able to find studies about the work of those who perform temporary work via digital platforms in hospital and LTC settings. There is some literature about working conditions for self-employed healthcare aide/personal support worker who work privately in homes; it focuses on issues such as self-employed workers' employment status as independent contractors and the role of technology in clocking in and recording tasks (Glaser, 2021), matching care workers to care recipients and lack of appreciation of the interpersonal relational dimensions (M. Khan et al., 2023), and other issues related to domestic care work .

Conversely, while there is a literature about digital platform workers who are not care workers, this body of work largely focuses on ride share and food delivery platforms like Uber or SkiptheDishes, or online work platforms for freelancers (Pulignano, Marà, et al., 2023; Wood & Lehdonvirta, 2022); it does not include healthcare organisations hiring temporary workers. Literature about digital platform work illustrates that it has negative health effects for the workers (Benach et al., 2014; Ervin et al., 2025).

Overall, there is a gap in literature about the use of self-employed DP workers to fill staffing needs in healthcare organisations. Only two papers examine the circumstances of self-employed workers on digital platforms (DP) contracted to work in hospital or LTC. In the Netherlands, DP work was described as offering nurses an alternative to self-sacrificing care work, but with a social and financial security trade off (Dingelstad et al., 2025). These researchers notes key differences between traditional temporary agencies and digital labour platforms where temporary agencies tend to employ nurses for a set timeframe (e.g., days, weeks or a few recurring shifts), but DPs are used to hire self-employed workers for very brief periods such as a single shift (Dingelstad et al., 2025, p. 3). In the US, Lien (2024) found that nurses were employed via a digital platform ‘gig work’ model in LTC homes during and after the COVID-19 pandemic were able to access shifts with premium wages while being responsible for a reduced set of nursing duties (Lien, 2023).

While a limited literature exists about healthcare organisations hiring DP nurses, we found no research about the hiring of other kinds of care workers, such as Personal Support Workers, via DPs. Our research question addresses this gap in our knowledge: what are the risks for hospital and LTC related to hiring temporary staff via digital platform?

4.3 Methods

This study used an Institutional Ethnographic approach to investigate the lived experience of industry experts and care workers about how digital platforms are used for hiring care workers in hospital and LTC in Ontario. Institutional Ethnography draws on the actual experiences of people in their day-to-day social world and how these are constrained by the prevailing or ‘ruling’ relations involved in the organisation of work (Smith, 2005). The subject of analysis is how certain processes play out and impact work is important for understanding how workers’ practices are constrained or enabled and become predominant or ruling relations. For instance, the screening practices for verifying workers’

documentation or the method for establishing employment status can be considered ruling relations, as can practices for orientation and other decisions around hiring.

In this paper we report on insights from 18 in-depth interviews conducted by the lead author with 10 digital platform and staffing industry expert informants and 8 digital platform workers conducted between April 2023 – January 2024 (Table 1). All informants worked and were located in Ontario, Canada.

Table 1: Table of Expert and Worker Informants

#	Pseudonym	Job	Sectoral expertise
1	Laura	Executive	Hospital
2	Harpreet	Nurse - Staff training	LTC
3	Jennifer	Human Resources Director	LTC
4	Delphine	Human Resources Management	LTC
5	Diya	Management	Labour and Employment law
6	Jack	Business Executive	Staffing industry
7	Deepak	Technology expert	Platform technology
8	Meilin	Technology expert	Platform technology
9	Aurora	Founder of DP	Platform technology
10	Emily	Founder of DP	Platform technology
11	Bonita	Personal Support Worker	DP labour force (hospital, LTC)
12	Ling	Nursing Student	DP labour force (hospital, LTC)
13	Xaliima	Personal Support Worker	DP labour force (hospital, LTC)
14	Amara	Personal Support Worker	DP labour force (hospital, LTC)

15	Beth	Personal Support Worker	DP labour force (hospital, LTC)
16	Laiba	Nurse (used apps as student)	DP labour force (hospital, LTC)
17	Melanie	Personal Support Worker	DP labour force (hospital, LTC)
18	Pia	Nurse (used apps as student)	DP labour force (hospital, LTC)

We used a purposive sampling approach to recruit all informants for this study. Purposive sampling seeks to select information-rich cases where informants have specific knowledge relevant to the topic (Patton, 2002). Expert industry informants (informants 1-10) were purposively selected based on their expertise about contingent staffing and technology or DPs. The healthcare organisation informants were required to have knowledge about how their organisation used technology for hiring gig workers. They were identified and recruited by four primary methods: LinkedIn profile descriptions, internet searches for digital platforms and organisational websites, telephone and email invitations to organisations such as hospital and LTC, and snowball referral. Their positions ranged from an executive of a multi-site healthcare organisation to Human Resources management. Worker informants (informants 11-18) were unregulated caregivers who used DPs; they had to have experience using DPs to find shifts in hospital or LTC as independent contractors. Workers were recruited for this study via social media private care groups, websites and via other care organisations where they were simultaneously employed.

All potential informants were sent an information letter about the study and invited to participate in a confidential interview at their own free will. Interview questions targeted informants' area of expertise and focused on how they used DPs, under what conditions or in what circumstances, and the actions they took via platforms. Informants were asked to describe technological features and constraints, and in some cases, they demonstrated DP use or sent screen shots to the researchers to illustrate how DPs functioned. Key foci were informants' experiences interacting with technology, human interaction or intervention related to DPs, and the work setting and circumstances (e.g., worker status, pay, contract). The interviews were audio recorded, transcribed, de-identified and reviewed for transcription accuracy. Transcripts were entered into NVivo 11 and independently coded by two authors (PH & AD). Codes were developed both a-priori, based on the research question and

interview domains, and inductively, based on key issues emerging from the data review. All authors discussed the code book and the findings that resulted after coding.

4.4 Findings

Below, we outline three risk areas for organisations: 1) worker reliability and quality, 2) work orientation for temporary staff, and 3) workers' compensation coverage of self-employed workers. These issues are closely interwoven with risks for patients or residents as well as risks for the precarious temporary workforce.

4.4.1 Worker reliability and quality

Using DPs was considered a risk for HC organisations because they did not provide reliable or qualified staffing. This is because the DP workers were in a competitive marketplace and there was a lot of labour movement – the DP workers were not tied in allegiance to any one healthcare organisation. Some also expressed concern about the falsification of documents.

The nature of working on demand meant that workers were not beholden to a specific organisation. One worker spoke about how working for multiple agencies meant workers kept their options open to accept the best shifts and might cancel shifts at last minute if something preferable came up. This worker had spent time working for an agency doing scheduling and identified that workers sometimes worked with multiple agencies and would take the best opportunity:

“...there'll be some of them who worked like, two or more agencies. And then sometimes they would cancel on our shifts and be like – ‘Why are you canceling us?’ And they were like, ‘I picked up a better shift at another agency’.” (Nursing student working as unregulated care worker).

This spoke to a workforce that responded to market incentives and took the best opportunity available for them regardless of prior commitment to a shift. There appeared to be a lack of loyalty to agencies or specific healthcare organisations.

Workers' flexibility to accept shifts sometimes left LTC homes or hospitals in the lurch. In hiring temporary workers to fill shifts, organisations became dependent on agencies to supply staff. In some instances, this led to unfilled shifts because workers would not show up when they were scheduled.

One LTC home manager spoke about how using an app to schedule agency workers meant workers could also cancel via the app, leaving the LTC home without staff at last minute:

“...the app was wonderful for [staffing]. The only downside was because it's an app and all the communication is done through an app, the challenge or downside would be they can also cancel on the app. So it's- it's two hours before 11pm for the night shift, and [Jennifer] cancels her shift, and the leader gets notification [Jennifer] just cancelled” (LTC management).

Using apps to hire workers created other concerns with the worker related to vetting credentials. According to Ontario law, there is an onus on retirement homes (Retirement Homes Regulatory Authority, 2025) and LTC homes (S.O. 2021, c. 39, Sched. 1 Part VI, section 81 (1)) to ensure the workforce is qualified and vetted. However, one DP technology expert spoke about agency workers uploading falsified documents that make them appear qualified for the job:

“One is the consistency of care. The other one is just the quality. Because so we do notice that a lot of the agencies, a lot of times, there's falsified documents, or just... I guess, because ... when you use an agency, that customer is not your employer, right. So, it's not like they can be fired and ... - they can report it back to the agency. But, there's no direct management.” (DP technology expert).

The quality and reliability of staffing with DPs was considered a risk for HC organisations.

4.4.2 Orientation and training for temporary staff

Using DPs (and temporary staff in general) can be risky for healthcare organisations when staff providing care are unfamiliar with the facility and this can impact care quality. This is due to limited on-site training for temporary workers and lack of workers' engagement and long-term investment in the healthcare organisation. The perspective of some healthcare managers and a nurse staff trainer indicated they did as much on-site training as they could, given the short timeline between hiring and the shifts needing to be filled. One nurse who organised training for staff spoke about how they would try to provide agency workers with time for policy review as well as with a time when they could “shadow” another worker while working alongside:

“So, agency staff, apart from the policy review session, they get one or two days of shadowing. ... It won't be like full fledged shadowing, it'd be more so like, they'll be assisting as - at the same time, they'll be learning about floor they're assigned to.” (Nurse doing staff training, LTC).

The amount of orientation varied by the situation. In some organisations when workers were called in on very short notice, it was only possible to offer an hour or two of familiarisation with the facility:

“Maybe we're desperate; we're like, someone's got to come in. Yeah, hopefully someone who's been here but if not, if not, and they accept, [the LTC company] will send them a message on [the DP] right away: 'Do you want to come in early for orientation? One to two hours early? We'll make sure you're paid, we'll adjust everything'.” (LTC management).

Managers spoke about ‘quality’ problems with temporary workers, such as sleeping on the job or workers being on their phones. According to managers, when these problems arose their duty was to report the worker to the agency:

“So not unusually, sadly, the PSW is found ... wanting; sleeping at the bedside, our accountability is to let the agencies know. And if there's any issues or any concerns around their practice, then they assume the reliability of that sort of thing. Now, if it was severe, like there was harm ... negligence ... I have a duty, obviously, to contact the agency... we do put a shared accountability to the agency, because they're basically hiring them on our behalf.” (Hospital management)

Such accountability for the workers’ performance was widely perceived to be on the agency. One manager spoke about how the healthcare organisation would review the worker and the responsibility for further action was the responsibility of the DP:

“Okay. So, let's say, let's say we've had an agency [worker] in, who was on her phone the whole time. What we'll do is we'll block her and give her a bad review. Her or him. [...] So we'll give a bad review and block because we do not want them to come back [...] And then whenever we do that, [DP] staff like comb all those reviews. And if someone gets a lot of bad ones, they look into it, or they'll just block that person...” (LTC management).

It was risky for healthcare organisations when staff providing care were not familiar with the facility and had not received sufficient on-site training. There were also concerns about worker quality and lack of workers' engagement and quality.

4.4.3 Self-employed status and workers' compensation

A critical concern when bringing in temporary workers is the worker's eligibility for workers' compensation. Self-employed workers are not covered by workers' compensation coverage. Thus, employing DPs was considered risky for healthcare orgs that hired self-employed DP workers, because they can be sued by the worker if the worker is injured on the job.

While temporary employment agencies have historically been found responsible for providing workers' compensation coverage for their workers (Lippel et al., 2011), we found this was not the case when temporary workers from DP companies were brought in to work as independent contractors. When a worker is an employee with workers' compensation coverage, both the worker and employer are covered by no-fault insurance; however, without workers' compensation insurance, workers and organisation can be held liable for accident or injury. One LTC home manager revealed that their organisation had been sued by a worker following a workplace injury because there was no workers' compensation in place:

“We had an ‘agency’ worker [become injured on the worksite⁶], and she sued us.” (LTC management).

For injured workers in specific circumstances, lawsuits can provide an alternative to workers' compensation because the Occupational Health and Safety Act requires employers to take responsibility for workplace health and safety; however, the lawsuit process is very complex and requires expert legal advice for pursuing this course of action (Goldfinger Injury Lawyers, 2024; HSP Law, 2023).

4.5 Discussion

With the rising use of agency and DP care workers, we identified three areas of potential risk for healthcare organisations that use agency and DP on an on-demand basis: worker reliability and

⁶ Details about injury removed to protect informant.

quality, need for orientation of temporary staff, and lack of workers' compensation coverage for self-employed DP workers in particular.

The risk for organisations of worker's reliability and quality includes risk of temporary workers not showing up. We found that if a temporary worker cancelled at last minute and a replacement could not be found, or simply did not show up for their shift, employees on site would be left working short staffed. Working short-staffed is a known risk for care workers as well as patients and can lead to burnout and job dissatisfaction (Aiken et al., 2002; Dall'Ora et al., 2020; Shah et al., 2021). Also related to concerns about workers' quality is the issue of vetting workers via proper screening and documentation. Hiring agency workers does not necessarily absolve health care organisations from the duty to vet the workforce. For instance, retirement homes in Ontario are required to make a reasonable effort in screening to verify the authenticity of staff records under the Retirement Homes Act, 2010 (S.O. 2010, c. 11) and Ontario Regulation 166/11. The Retirement Homes Regulatory Authority states, "These requirements include making a reasonable effort to verify the authenticity of staff records, where they are submitted by the individual or a third party, should there be any reason for doubt. The RHRA encourages licensees to review their staff screening protocols to maintain compliance with the Act and Regulation" (Retirement Homes Regulatory Authority, 2025). LTC homes in Ontario are also required to ensure staff are appropriately screened under the Fixing Long-Term Care Act, 2021 (S.O. 2021, c. 39, Sched. 1 Part VI, section 81 (1)).

A second area of risk relates to the level of on-site training or orientation provided for workers. This illuminates concern for workers' occupational health and safety. When it comes to occupational health and safety, there are multiple risk factors for temporary work in companies. Previous research about temporary agency workers has revealed inadequate on-site safety training among those who experience workplace injury (Underhill & Quinlan, 2011). Inadequate safety training combined with lack of experience and unfamiliarity with workplaces and processes are workplace injury risk factors for temporary agency workers (Underhill & Quinlan, 2011). There is room to further investigate the type and duration of orientation and safety training provided to temporary staff in hospital and LTC homes.

A third area of risk surrounded the issue of workers' compensation insurance coverage for temporary workers who were self-employed. For publicly-funded hospitals and LTC homes, having workers

without workers' compensation is a liability as the lack of insurance can lead to lawsuits if a worker is injured. This is highly concerning given the high injury rate of care workers as outlined in the introduction (Workers Safety Insurance Board Ontario, 2025c). More research is needed about the issue of workers' compensation coverage for temporary workers given that healthcare organisations are likely to need to draw on this contingent workforce until a sufficient workforce of healthcare employees can be hired.

4.5.1 Addressing staffing challenges

With the need for temporary workers expected to continue for the foreseeable future, healthcare organisations can take steps in two areas: employment emphasis and temporary worker quality assurance. First, organisations can prioritise permanent staffing hiring, and make the work more attractive such as by increasing wages for permanent staff; and second, ensure strong mechanisms for verifying temporary worker qualifications and improved orientation and site safety training (Pradhan et al., 2025). Emphasis on the benefits of stable employment (e.g., health benefits and pension plans) may also help organisations attract and retain nurses and other healthcare workers.

Overall, platforms may appear to provide a quick and easy solution to healthcare staffing shortages. However, this initial DP research identifies problems with platforms. We show how healthcare organisations may be harmed by poor reliability and quality of DP workers. These adverse experiences may prompt leaders in healthcare organisations to recognise the value having more reliable, experienced workers by hiring them as employees rather than as temporary staff.

More broadly, the literature suggests it is important that healthcare organisations develop strategies to retain permanent employees and consider long-term workforce stability in addition to the immediate need for agency staffing (Pradhan et al., 2025). To address worker absences, organisations could continue focused work to build on existing rosters of internal employees so they can draw on a pool of employees who are already familiar with the worksite when there are absences. This would help alleviate the issue of employee nurses having to provide orientation for a revolving door of temporary staff (Gahrman & Klumb, 2024). Dinglestad (2025) suggests that improving work conditions for employment – such as providing nurse employees with more flexible schedules – could help improve nurse employee retention and reduce nurse attrition to self-employment and reliance on temporary workers.

The literature also raises how the reliance on agency staff reduces the financial ability of organisations to hire permanent staff (Bowblis et al., 2024). The increased wages and flexibility offered by temporary agencies pose difficult competition for organisations (Bowblis et al., 2024). Policy makers may need to stem the high public expense of hiring temporary staff by encouraging investment by health care organisations in hiring of employees on permanent or long-term contracts. Furthermore, it is important to note that hiring temporary workers via digital platforms creates precarious work conditions which have negative health and well-being effects for the workers themselves (Benach et al., 2014; Ervin et al., 2025; Lewchuk et al., 2008; Wood, 2016).

4.5.2 Strengths and Limitations

This is a small study but it raises some new questions about the risks of hiring temporary workers and the implications for healthcare organisations. A strength of the paper is that it is among the few papers that draw attention to hospital and LTC healthcare workers who are hired via DP. Another strength of this paper is that the workers we recruited were classified as self-employed and all worked via DP. Like DP workers in other industries, they were responsible to claim their income, pay their own taxes, and were not provided with statutory deductions like Employment Insurance and lacked workers' compensation coverage.

Some limitations are due to the fact that we did not interview any employees who worked alongside temporary staff. Furthermore, we were unable to recruit a legal expert who had knowledge of temporary healthcare workers' legal employment status; healthcare organisations generically refer to any temporary worker as an "agency" worker. These would be important perspectives to address in future research.

4.6 Conclusion

We have identified DP temporary work as a means of staffing that places organisations at risk of unfulfilled shifts due to no-show workers, a potential for poorly performing care workers, and legal liability for self-employed workers' injuries due to a lack of workers' compensation insurance coverage.

Chapter 5 (Manuscript 3) “I never thought about it”: Social trust in private home care through persuasion on digital platforms

5.1 Overview

How much trust should a homecare client place in a personal caregiver, and vice versa? In recent years, private care Digital Platforms (DPs) have been used by personal caregivers to find jobs and by homecare clients to find caregivers. The ways that DPs operate, including their administrative structures and terminologies, create a dominant discourse designed to foster users’ trust in the platform and in other users on the platform. We highlight the persuasion of DPs, which impact the social relations between the platforms themselves, homecare clients and workers. We examine DP persuasion and trust-building through people’s day to day activities. Caregivers’ work within DPs illustrates how usual employment conditions are circumvented by platform work arrangements. Platforms also obscure important rules for legitimate self-employment. Furthermore, caregiver activities highlight how DPs and social trust foster a lack of precautions, effectively undermining protections for both precarious workers and vulnerable clientele engaged in personal caregiving relationships.

5.2 Introduction

Digital platforms (DPs) deployed on smartphones and websites to render services are becoming more commonplace in many societies today. Trust is inherent to DPs. Humans trust that the technology will accomplish what it says it will in a fair way (Schneier, 2012). Yet in the current state of technology, which includes more Artificial Intelligence more recently, technology still reflects human biases (Freeman et al., 2021). A question of social trust – how much one trusts interactions on DPs – is an important consideration for the exchange of services online.

When it comes to in-person services, like ride-hail services, a bad customer experience may be no worse than a late pickup (Bartel et al., 2019). With grocery delivery services, a bad experience may be no more than getting bruised bananas delivered, while with food delivery, your burger and fries might be cold. Care clients seeking personal care services through DPs face much greater risk. What is the risk to a person with dementia being given a bath, or a paraplegic lying in bed waiting for help to get up? This paper explores the subject of work on DPs for caregiving services, with particular

attention to social trust and digital persuasion. We also consider how clients can be enticed to trust care platforms via the text that DPs utilize to reach clients.

5.2.1 Background

Trust in DPs is a multi-faceted sociotechnical construct incorporating aspects such as trust in the platform operator, trust in platform technology, and trust in interaction with other users (Oesterreich et al., 2024). People's trust in DP technology and DP operators influences their trust in interaction with other users, who are usually strangers (Räisänen et al., 2021). Trust in interaction with other users is often facilitated by platforms displaying users' past behaviour via some feature in the DP such as ratings or rankings (Frenken & Schor, 2017). Aside from ratings, profiles displaying worker information contribute to DP users' trust in DP workers (Mateescu & Ticona, 2020).

Platforms act to persuade DP users in other ways as well. For instance, the technology deployed by care.com is not neutral: care.com has been accused of using deceptive design, with a 2024 US Federal Trade Commission complaint alleging that "Care.com used inflated job numbers and baseless earnings claims to lure caregivers onto its platform, and used deceptive design practices to trap consumers in subscriptions" (Federal Trade Commission, 2024).

At the same time, platforms often distance themselves from workers from a legal point of view. For example, one platform operational in Canada and internationally states: "Care.com is an online venue for care seekers and caregivers to connect with each other. Care.com does not employ any caregiver and is not responsible for the conduct of any user of our site. All information in member profiles, job posts, applications, and messages is created by users of our site and not generated or verified by Care.com. You need to do your own diligence to ensure the job or caregiver you choose is appropriate for your needs and complies with applicable laws" (Care.com, 2025). This 'fine print' disclaimer is integral for workers who trust DPs to find care jobs and for clients who trust DPs to find caregivers.

Digital platforms benefit from the exploitation of the reproductive labour of women and racialized women in particular, reflecting the broader undervaluation of this work in society (Rodríguez-Modroño et al., 2022, 2024). Gender inequalities common to reproductive work are replicated on DPs (M. Khan et al., 2023; MacDonald, 2023; Strüver, 2024). Around the world, a majority of care workers who work via digital platforms are women, and particularly immigrant and racialized women (van Doorn, 2017; van Doorn et al., 2022). In publicly provided caregiving employment, those who work in hospital or long-term care homes are markedly better off - in terms of job quality and

remuneration - than workers who work in home care (Zagrodney et al., 2022a, 2022b). Disparity in job quality and remuneration for work between healthcare settings also appears to be replicated in DP gig care work with worse conditions for workers in home care compared to hospital or long-term care homes (Hopwood et al., 2024).

In gig work research, there is a substantial body of literature about trust. For example, Wood & Lehdonvirta (2022) discuss how, with ratings systems, workers become categorized as having good reputations and being trustworthy (Wood & Lehdonvirta, 2022) and Wood et al. (2019) describe having good reputations as leading to work and pay of relatively high quality (Wood et al., 2019). In a related thread, gig work literature has also reported the normalisation of risk, with workers accepting risk as an expected part of the job (Schor et al., 2023). An important aspect of gig care work that is different from other forms of gig work is that it involves in-person, relational work (Funk et al., 2022; M. Khan et al., 2023). Trust also appears as a prominent theme within in-person care work literature. Ticona & Mateescu (2018) describe how care platforms organize workers in a way to profit from making workers visible via their online profiles to serve the platform and client. They note that DPs make use of the word ‘trusted’ to describe caregivers, and deploy technology to serve as markers of trust, such as ‘badges’ and other components of profiles (Ticona & Mateescu, 2018). The interpersonal relationships considered in gig care work are complex, with workers shown to care for their clients’ interests as well as their own (M. Khan et al., 2023). That is, workers established rapport and met client needs, but only to the extent they did not subject themselves to unsafe environments (M. Khan et al., 2023).

Our paper explores issues of trust in relational digital platform care work; however, we go further to illustrate: (a) how the work of building trust manifests in the day-to-day activities of workers, organised by the text as ruling relations on DPs; and (b) how the text of DPs works to persuade users and generate social trust between clients and care workers.

5.3 Methods

We drew on an Institutional Ethnographic (IE) methodological approach, which focuses on the actual experiences of people in their day-to-day social world (Smith, 2005). IE then considers ruling relations, beginning with peoples’ everyday activities, as the subject of analysis. Ruling relations can be widespread social coordination or the organisation of social relations (e.g. the practices of police officers) – sometimes mediated through texts (such as documents, texts, emails, memos) or verbal

discourses. ‘Ruling’ references how the reiteration of social organisation and relations make some ways of interacting dominant (Smith, 2005). In this study we begin from the standpoint of workers who seek work as personal caregivers via DPs. We explore the everyday activities of DPs to identify the ruling relations that coordinate their work. We concentrated on how trust in DPs is evidenced in the activities of DP users.

5.3.1 Participants & Ethical Recruitment

Because digital platform care workforce is hidden, this made finding individuals who work in other individuals’ homes providing private care using DPs challenging (Orth & Baum, 2024). After exhausting several methods of recruitment I consulted with the research ethics department at our institution to devise a careful plan to recruit participants from within platforms by posing as a care client. To ensure the anonymity of potential participants from the DPs, we determined that covert use of the platform would provide the greatest protection. Once ethics approval was obtained I began to engage with workers as a care client, followed by disclosure about the purpose of the research upon contact. The job description I posted was seeking a worker for a one-time job of one to two hours, and was designed to most closely reflect the limited research and remuneration opportunity I was providing. In one case, I had to purchase a paid membership with a platform to be able to contact workers, which was done using a pseudonym and pre-paid credit card as well as a disposable phone to ensure participants would not be traced through an account in the lead researcher’s name.

Using this REB approved method, we successfully recruited eight homecare participants via DPs, resulting in a total sample of 12 DP workers. The overarching project involved 20 care workers, of whom eight worked for long-term care homes or hospitals and are not included in this analysis, which is focused on home care (ref blinded for review). Participants in this study used one or more of five platforms, although two platforms were most commonly used. All participants recruited for this study agreed to participate of their own free will following informed consent and pseudonyms are used to protect their identity.

In addition to interviews with the platform workers, the lead author conducted interviews with six key informants who had expertise in DPs and healthcare staffing, as well as with two home care client informants who had experience using DPs to connect with workers. These key informants were purposively sought based on their direct experiences. They were primarily recruited via public

websites (e.g., LinkedIn) and contacted based on their work experience. The two home care clients were contacted in private Facebook caregiving groups.

5.3.2 Data Collection & Analysis

By taking on a care client role, we were able to observe how DP technology created a textual discourse that shaped how we represented ourselves and constrained our own actions. Options, such as providing details of the type of job being offered and times for seeking workers, along with limitations on who appeared in job searches and constraints on sending messages, shaped how we would appear to workers. From within the platform, we experienced first-hand how clients might negotiate with workers to determine hours and pay - with each party seeking to achieve their own preferred schedule. Taken together with the ‘hidden’ workforce and the paid membership firewalls that prevented access to the DP workforce, we recognized a problem in how DP discourse normalised the acceptance of risk by workers. That is, the real hazards of something going wrong were downplayed or minimised. To help ground the study in practical realities of using and running platforms, we worked with an advisory council consisting of three workers and one DP owner (whose company was ineligible due to being located outside the study jurisdiction.)

We probed all users’ interactions on the DPs, and client – worker exchanges via the DPs. This allowed us to begin “mapping” how an implicit discourse of trust shaped the activities of DP users (both workers and care clients), including the very data they submit to the platform. We drew conceptual maps showing connections between different parties as well as the social relations between them; for instance, the client and the worker were both connected to platforms as “customers” of the DPs. This mapping of social relations that occurred between workers, the DPs, and clients – with the activities of the parties, as well as the terms and conditions of use and platform structure and features – showed how all elements contributed to a discourse of platforms as trustworthy.

5.4 Findings

Platforms persuaded users via a discourse of trust in DPs, which emerged in three key areas. First, we consider workers’ self-representation and the role of trust. Second, we explore the circumstances of platforms persuading the users of the platform’s opportunities for work and caregiving, but both

workers and clients trusting the platform would allow them to organize ‘cash’ jobs. Third we examine the role of trust given a lack of work-related insurance.

5.4.1 Workers’ self-representation and trust

Workers had limited trust in clients - most said they would first meet the client in a public place or would tell a friend or family member of their plans before meeting a client at a home. Interestingly, both clients interviewed extended social trust to the DPs and placed social trust in workers as well as other users’ reviews. Worker ratings on the care platform were thus one way that trust was seen to be warranted. The ratings system, which involved earning of trust and demonstrating oneself as trustworthy, prompted workers to engage in the labour of soliciting reviews. This was a form of digital persuasion meant to increase trust in the care worker. Care workers in this study actively engaged in the work of asking for ratings from previous care clients as part of managing how they will appear to potential new care clients on the platform. One care worker described some clients recognizing this solicitation as “helpful” for workers, illustrating her perception that clients might engage in an act out of appreciation for her work:

“So if I go to any work for client, I’ll be like, “Okay, please, can you rate me on the site?” They’ll be like, ‘Okay’. So many people forget. But those that really wants to help, they give me stars. And write something nice.” (Keyshia, care worker)

Interviewer: “And does that seem like a fair process to you? Like what they have written is good?”

“Yes. Because that attracts people that would like to hire you. So, I’d like to check your profile ‘Okay, let me see what this person got’ and they read through. And they be like, ‘Okay.’ Definitely- that could interest them to contact you.” (Keyshia, care worker)

The act of rating a worker goes beyond the client-worker relationships that are traditionally about an exchange of money for services. This form of showing approval (or disapproval) for a worker’s performance was perceived by workers as clients’ being helpful towards supporting their future job opportunities and thus soliciting reviews became part of their trust-building work in establishing a profile with reviews.

Workers actively constructed themselves in their profiles to gain trust of potential clients. Some workers hoped to gain additional trust advantage by describing their international training as health professionals, even though their credentials were not recognized in Canada.

Posing as a care client, I experienced that platforms sometimes promoted certain workers via notifications to me in my search for senior care. One such example was an internationally-trained health worker:

“I am [name] a nurse from [country]. I am currently studying English, I do not have a work permit but I am looking for options to apply for a work permit, I am looking for I am skilled, responsible and an excellent worker” (Sample notification from unnamed DP).

These internationally trained workers also hoped to acquire through the DPs some healthcare related work experience in Canada, to further their career and employability. One worker had two healthcare related credentials in the Philippines; however, she was unable to find work in Ontario and had turned to using DPs not requiring credentials while considering the option to take a PSW course:

“My friends told me that I need to upgrade my course here” (Carmelita, care worker)

Interviewer: “Okay. And do you have to pay to do that?”

“I don't know. They said, you will, gonna study PSW. [Yeah] There's grant for PSW right now.” (Carmelita, care worker)

Interviewer: “Oh, that's good. If you could find it like that. You don't have to pay. That would be good.”

“But they said if there's a grant, you need to pay back.” (Carmelita, care worker)

Interviewer: “Oh, oh, it's a loan”

“It's like that - you need to pay back when you have work.” (Carmelita, care worker)

Another worker was also an internationally trained nurse but could not find work in her profession until her license was recognized; thus she relied on the platform to share her education in hopes that it would increase potential clients' trust in her skills. She had lived in Canada for two years and was still caught up in a bureaucratic system trying to obtain recognition of her international education:

“It's a very long process. But I haven't gotten an answer yet [...] Here I am. It's been so long [since] I've applied to get an assessment for my credential. And I've just been waiting. And I

had to follow up and follow up follow up every time [...] And at the end, I'm still waiting.
[...] I'm expecting to do extra courses or whatever they suggest, but I still don't know.
Officially, I still don't have an answer. [...] it's too many applications. That's their response.”
(Leandra, care worker)

Overall, workers put in the work of promoting themselves (via profile information and rating-seeking) in order to garner trust from prospective clients. DPs facilitated ratings and profiles, as tools for persuading potential clients of workers' trustworthiness.

5.4.2 Trust in the availability of (cash) jobs on DPs

Workers and clients demonstrated their trust in platforms by signing up or utilising the DPs to find work or caregivers. Workers particularly expressed that they had hope for finding job opportunities. Most workers realized their expectations for DP work were not met through the limited work opportunities they found on DPs; only two workers had success finding more than a few jobs. When it came to finding consistent opportunities, the platforms' promises of flexible work opportunities often proved misleading compared to what worker participants experienced. Still, the DPs were preferred for trying to find work on an under-the-table basis, because this created a preferred situation for workers where they could hide income and expenses from government authorities and therefore be eligible for subsidies. These cash jobs – the 'informal' economy – sometimes were a key reason why care workers used DPs.

“Honestly, I'll be truthful it's, like the opportunity of finding a cash paid job. [...] So, for me, that's that was it for me, like I can find a family that's looking for someone and they can pay me cash. That's the reason why I was on there. [...] I live in [...] rent geared to income, so it's geared to my job that I'm - so if I get like a legitimate job, they're gonna bump my rent up. So, I like a cash job because then that's mine, and I don't have to claim it” (Rosemary, care worker).

Workers were deliberately using the platform to find off-the-books work and avoid claiming self-employed income to the Canada Revenue Agency.

At the same time, one client hiring workers trusted that workers would be available at affordable rates to work under the table. Clients are sometimes on fixed incomes, such as old age security or disability benefits. These clients may lack the financial means to hire workers as employees due to the cost of

paying formal employees' statutory taxes. One client spoke about not having the money to employ workers:

Interviewer: "Um, when you hire somebody privately, do you have to take off that Canada Pension Plan or [Employment Insurance] benefits or anything for them?"

"No. They have to do that themselves. Or I just give them cash [...] I WOULD do that. I would do that, if I'd get paid more" (Kyle, care client)

Despite the low remuneration and often a lack of formal employment relationship, workers took on work for private home care clients. Clients faced financial limitations in paying for their care and trusted that workers would make their own self-employment deductions or would work off the books. Platforms merely warned users to follow the law in their own jurisdiction; they did not describe the complexities of self-employment or establishing a formal employment relationship.

5.4.3 Trust and (lack of) insurance coverage

The first consideration of trust for care workers on DPs and their clients is within the context of insurance. Multiple kinds of insurance may be relevant considerations for care workers and their clients. These may include car insurance, professional liability insurance, and workers' compensation or personal injury insurance. We found that the way that platforms are set up indirectly influence how workers and clients assess risk and thus influence their decisions to purchase care services or work providing care without the appropriate insurance protections. Remarkably, neither workers nor their clients thought much about health insurance prior to being asked about it during interviews. With the risks of self-employment and private care not fully elucidated on DPs, workers and clients trusted that nothing would go wrong in terms of injury or believed that some existing form of insurance, such as home insurance, would cover them if something happened.

There was even confusion around what types of insurance would be important and what coverage would be included. For instance, one worker's first thought was about vehicle insurance; she had not considered any other type of insurance:

Interviewer: Now, did you ever think about things like insurance?"

"I thought about that. And I was like, 'Shit, I hope they don't ask me'. Because a lot of places now are like, 'Oh, you need 1 million liability, or 2 million liability or whatever, to have people in your car.' But they never asked anything like that. So." (Melody, care worker)

Interviewer: “Did you ever think about things like insurance for if something happened to you? Like if you would be entitled to workers compensation?”

“No, I never had thought about that.” (Melody, care worker)

A client considered that he took precautions to avoid things going wrong, but believed his home insurance would cover a problem such as injury if anything happened to him or to the worker:

Interviewer: So another thing that I'm curious about, is, when you have to hire somebody privately, are they going to have something like insurance, if something goes wrong?

“Here is the thing. Some of them do, but a lot of them don't. But we have insurance on our house. So, if something happens, I have insurance. And luckily, because I'm very good at directing my care ... I haven't fallen, I haven't had people fall in the house. ... So we haven't had a problem, or we haven't had somebody, like, injure themselves as a carer or something. So, we haven't had to worry about that. Um, If somebody fell in the house, we do have insurance.” (Kyle, care client)

Typical homeowners' insurance may protect a home and belongings against loss (Feinman, 2020); however, workers' compensation for domestic workers depends on the jurisdiction and the existence of an employment relationship, duration of employment, and/or other factors such as wages (Riley & Majano, 2021). These data show that DPs that allow for workers and clients to connect do not provide sufficient information about liability risks or insurance needs; the work of investigating what coverage is available is downloaded to the worker and the client.

Even when workers carry professional liability insurance, what this insurance covers is not always evident to workers. Industry Informant Aurora described that many personal care workers were unclear about the parameters of professional liability coverage:

“An element of professional liability insurance policies that many PSWs expressed concern over was coverage for damaged property at the client's home. As you know, PSWs do far more than direct care in the homes of their clients and frequently load dishwashers, do laundry, clean, etc. If a utensil fell through and damaged a dishwasher jet after it was loaded and turned on by a PSW, for example, many wanted to be sure that there was coverage in their policies for these types of incidents” (Aurora, DP owner/manager)

The issue of insurance is particularly problematic when a worker is self-employed because they are not covered by the Workplace Safety and Insurance Act in Ontario, and they have no employer who would cover liability insurance. Even when a worker is the employee of a private care client, the client is not mandated to provide workers' compensation coverage in Ontario (Workplace Safety and Insurance Act 1997, S.O. 1997, c. 16, Sched. A., O.Reg.175/98); however, as employees, the workers are entitled to be covered by Employment Insurance and have Canada Pension Plan deductions. One platform owner/manager described guiding caregivers and clients to set up a clear contract that defines the employment relationship:

“I think that to avoid any confusion later it is best for both the [care client] customer and the worker to know exactly what the nature of the relationship is. We have memos and contracts, for example, where both parties agree on what the nature of the relationship is. We provide payroll services, because we encourage, especially for permanent positions, we encourage that the person should be hired as a domestic employee, just like how families hire nannies” (Emily, DP owner/manager).

The informational approaches of the platform owners were not common to the other marketplace platforms we examined. Owners and managers of other homecare platforms where we conducted research downplayed their role to being a space where caregivers and care recipients connect, with the DPs including text that they bear no responsibility for supplying workers or clientele and users are responsible for ensuring adherence to any applicable laws. DPs that lacked a feature of matching workers to clients as employees thus downloaded the responsibilities to workers to be informed about self-employment and to care clients about hiring these workers.

5.5 Discussion

Workers' self-representation via profiles and seeking ratings both played into the digital persuasion of DPs, with the platform technology impacting the potential relationship before a worker and client even connect. From the theoretical perspective of IE, the technology ('text') actively shapes the social relation between workers and clients – when they input schedule availability, when they upload a driver's license (or not), if they provide a phone number, and if they have any ratings or reviews – all prior to any interaction directly between a client and worker. Other features also shape the way workers and clients are viewed by each other such as profiles describing the worker, or descriptions

of the clients' needs. All of this goes into how workers and clients perceive each other, and their social trust in the other party is thus dependent on the platform.

We see those classified as 'workers' engaging in the work of self-promotion, job finding and reputation management (Pulignano et al., 2024; Wood & Lehdonvirta, 2022), while those classified as 'clients' also engage in the work of posting jobs and describing care needs as well as reputation management. Both parties also engage in the social relational work of assessing trustworthiness. What is unusual about care work DPs is the level of intimacy that the parties will engage in. This is not about taking a ride in public, where an Uber driver and passenger trust each other will follow the terms and conditions of the app and be held 'accountable' to some degree by ratings (Pulignano et al., 2024; Stark & Pais, 2020). This 'work' is a worker trusting that a client is genuinely seeking care, and a client trusting that a worker is skilled and professional enough to enter their home. Sometimes the client may be immobile, require perineal care and exposing genitalia, and/or have cognitive impairment.

Some research reports that workers fear their profiles will not appear in the top of searches if they have lower ratings (Ticona & Mateescu, 2018); however, that is not always the reality. One study found people with no ratings or reviews were sometimes included in the top ten results (Fetterolf, 2021). Other algorithmic biases may be at play in determining who appears in top search results, although these are often not transparent (Wood & Lehdonvirta, 2022).

Some participants were using DPs because their education was not recognized in Canada and the bureaucratic process was not operating in a timely manner despite severe healthcare workforce shortages. This illustrates an interplay between regulatory bodies for immigration and inefficient credentialling of international healthcare workers in a labour market desperate for qualified care workers, and the informal gig care market (Lam & Triandafyllidou, 2022). Where the institutions fell short, the DPs provided a place workers had a shot at finding paid work.

Work for cash versus formal employment

Workers and clients alike placed a great deal of trust in DPs, based on the discourse of trust conveyed by platforms as a prevailing or "ruling" relation. For instance, DPs provided limited information for workers; they did not provide details about the implications of self-employment compared to employment. Clients were sometimes not positioned to provide formal employment due to financial limitations: formal employment comes with extra costs of government contributions such as workers'

compensation and statutory taxes. There was also lack of information provided on DPs about how to provide formal employment. This encouraged off-the-books work instead of formal employment relationships. In this environment, off-the-books work seemed dominant, and the alternative of formal employment was not given real consideration by either clients or workers. As such, clients and workers alike extended trust to the other party despite a lack of formal employment arrangement. In promoting connections between workers and clients, the DPs provided an environment where workers and clients could find each other and potentially choose to form off-the-books employment relationships. Neither workers nor clients seemed equipped to navigate the legal complexities of hiring self-employed private caregiving services with the appropriate safeguards and insurances in place. In our view, these arrangements exploit a vulnerable workforce and vulnerable clientele, who were left to establish trusting relationships through DP mechanisms in the absence of formal contractual agreements.

Other research has found that the way gig platforms are designed pushes workers to adopt certain attitudes or beliefs about risk—like seeing it as a normal part of the job or something they alone are responsible for (Schor et al., 2023). We suggest trust in platforms is further pushed so that workers and clients on care DPs go beyond the passive acceptance of risk inherent to platforms: the ruling relation of informal employment on care DPs encourages users to actively place trust in platforms and the people one encounters via platforms. Schor et al. (2023) provide a useful introduction to the interpersonal relationships between workers and clients via DPs; they remark on several instances where clients acted in entitled ways and submitted complaints in efforts to receive services for free. This illustrates that there is little protection for workers when trust between the worker and client is broken. Additionally, more is at stake with client and worker interpersonal relationships on care platforms. Not only can workers face damage by clients to their online reputation, but they also face in-person physical and emotional risks by working at the private homes of clients. Similarly, clients place themselves in possibly dangerous circumstances by inviting unregulated and self-employed (unvetted) care workers into their homes.

Lack of Insurance

Workers and clients lacked institutional relationships with insurers such as workers' compensation insurance, liability insurance companies, and government employment insurance. The lack of insurance in the informal work environment becomes the ruling relation – the norm for clients and

care workers on DPs. For instance, workers did not participate in optional workers' compensation programs for self-employed workers because they sought to keep their work off the books. Some workers did not declare their income as self-employed workers, pointing to a lack of institutional communication between DPs and Canada Revenue. The lack of information on some care platforms about the liabilities of, and responsibilities for, self-employment seemed like a deliberate omission. The absence of content on the DP outlining the requirements for operating legally while using these platforms as intermediaries not only downloads responsibility to gig care workers and clients (Pulignano, Mara, et al., 2023; The Australia Institute, 2023) but is also moral negligence on the part of DPs. Platforms benefit from the employment classification of labourers as self-employed and clients as customers of the self-employed worker, while providing a structure that allows for "off-the-books" work by not enforcing any structure for worker-client employment arrangements (Ticona & Mateescu, 2018). Despite taking an official stance of operating as a 'marketplace' site where care workers could meet clients and vice-versa, care work DP technology actively sorts workers and encourages workers to display information about themselves "...to establish their trustworthiness" (Ticona, 2020, p. 14).

To create the technical infrastructure and shape the ways that clients and care workers connect, while not providing guidance about minimal requirements for legitimate self-employment and employing care workers, is silence by design. Failing to explain the implications of utilising the DPs for care gig work exploits the naivete of users who may not be aware of the logistics for providing care or hiring care workers.

The oppression of information about legitimate self-employment or formal employment may represent deliberate or "strategic ignorance" (De Villiers, 2025) on the part of DPs. This is when companies intentionally ignore information for their own benefit. Given the allegations of deceitful design by Care.com referenced at the beginning of this paper, it is plausible that DPs are deliberate about sharing information that will promote the use of platforms for care work while downplaying the importance of legalities surrounding employment status.

DPs could, as one owner/manager described, guide clients to legally employ workers; alternatively, as another DP owner/manager described, the DPs could provide workers with sufficient knowledge to make informed choices as legitimate self-employed workers. That platforms maintain a dominant position in structuring the information flow between workers and clients, while rendering the logistics

of employment silent, illustrates a ruling discourse of informal employment embedded in the platform, that overshadows the legalities of legitimate self-employment.

DPs operate to create a ruling relationship of informal work (overriding traditional institutions of employment), with technology acting as a legitimizing tool to mask a marketplace that does the bare minimum to dissuade under-the-table work. DPs capitalize on workers who are fixated on the draw of flexibility, while missing out on the rights guaranteed to them under standards for employment and occupational health protections (T. H. Khan et al., 2023; MacEachen, de Rijk, et al., 2022).

Strengths and limitations

This study draws on insights from direct users of DPs for caregiving. While the sample is small in numbers it is robust in depth and drawing from the experiences of people who use platforms to find caregiving work and caregivers. Further, it is strengthened by the insight of DP owners and other key informants who have insight into the DP caregiving industry. A limitation of this study is that we are unable to speak to the representativeness of the sample; however, our on-app recruitment strategy ensured we reached a group of actual DP workers.

5.6 Conclusion

We find that private clients and workers using DPs in healthcare were persuaded by DPs to pursue informal, precarious work relationships – with DPs providing mechanisms designed to facilitate trust despite creating unsafe, unregulated private care for clients with unmet care needs.

First, workers' ratings and profiles were utilized to persuade worker-client interpersonal trust. Second, suppressing information about legitimate self-employment and the consequences of working without formal employment arrangements made it seem as though connecting for off-the-books work arrangements is unproblematic or somehow legitimized as the result of a platform-mediated relationship. Third, the risk associated with not having insurance was not made evident on platforms, which focused on persuading clients to trust workers.

Our study suggests that platform-based care work entrenches existing processes of labor casualization and precarious work, disproportionately impacting a predominantly female, migrant workforce. Platform work further degrades work quality in a market where feminine social care work jobs have been historically devalued.

Chapter 6

Discussion and Conclusion

This dissertation is concerned with how the experiences of DP gig care workers were impacted by the technology they used, and how power relations were evidenced in their day-to-day experiences. Furthermore, it investigates the protections that do or do not support self-employed workers and considers how this impacts work conditions for gig care workers on DPs. In this discussion chapter, I first outline the overall contributions. I then summarize vulnerabilities including discussing a lack of choice for workers, self-employment status, institutional invisibility and personal visibility. Next, I discuss the risks for clients and organisations using DPs. I then describe the cross-cutting theme of trust. Following that, I include a section on the policy and practice environment and implications related to DPs. Subsequently, I describe strengths and limitations. I include methodological considerations related to the conduct of this research and discuss how my work engages with an emerging body of work on ethical recruitment on DPs. Following this, I highlight insights from using Institutional Ethnography. I then wrap up the discussion chapter with areas for future research, and a brief conclusion.

6.1 Overall contributions

The three papers in this thesis collectively show that the technology of DPs institutionalises precarious gig care work, making already precarious care work more precarious. This work contributes new insight by applying Institutional Ethnography and Marcusean analysis to gig care work. I connect literature on precarious gig labor with care ethics and show how digital technologies perpetuate gendered, racialized labour divisions. Methodologically, the use of platform-based recruitment (with appropriate ethical safeguards) proved a vital way to study this under-researched workforce. This dissertation shows that DPs are not mere neutral marketplaces but active agents of governance in care labour. They embed neoliberal norms of self-reliance and trust in DP processes, often to the detriment of vulnerable workers and care recipients. To ensure quality, equitable care, society must reckon with this gig model of care provisioning — by aligning platforms with public care values or by regulating them to protect all parties.

Precarious work is promoted through DPs. Though there are differences between the manuscript findings — primarily in how marketplace platforms operate compared to on-demand platforms — one issue that is common is the lack of power workers have over key aspects such as what

information the platform provides. The DPs also govern that DP work will be self-employment. Due to a lack of coverage by employee employment and social security protections, DPs contribute to potential for negative events to occur to workers and clients.

6.2 Vulnerabilities in DP work

Vulnerability for workers is a cross-cutting theme in this dissertation. My work adds to existing literature in several ways, covered in the following subsections: disempowered workers, institutional invisibility, personal visibility, manual review of hiring on on-demand platforms, safety considerations, unpaid labour and false hope, and relational care as commodifiable gigs.

6.2.1 Disempowered workers despite DP discourse of ‘choice’

I found DPs utilise technology to set up workers with limited worker rights and employment protections. They exacerbate disparity between home care workers versus hospital and LTC home workers and enable risky relationships for all users including organisations. They accomplish this in part by eliciting social trust from workers as well as clients. DP technologies act in a dominating manner that institutional ethnography (IE) would refer to as *governing texts* that organise people’s activities (Smith & Turner, 2014). Governing texts encourage or even require certain actions of workers. DP technology shapes work conditions and these digitally-shaped work conditions shape social relations for DP workers.

The first way that DPs shape work and institutionalise social relations is by ensuring workers who sign up are classified as independent contractors (self-employed). Additionally, from the outset by merely signing up for using a DP, workers and clients are slotted into the role of gig worker or client. These roles are defined by DP terms and agreements, as well as a pre-fabricated socio-technological framework (the DP model) which controls the presentation of information the worker or client inputs about themselves. This socio-technical influence of the platforms in a capitalist society contributes to positioning workers as labour, while the commodification of labour in this manner reflects care work as the completion of gigs (versus care for another human). Thus, the socio-technical influence of DPs creates a ruling discourse: it positions care as a commodifiable job that can be organised or enabled by platforms. Platforms dictate relations of ruling by creating a technical structure that can be scaled up to organise a mass of people and how they relate to one another. In this way, technological

rationality reproduces societal norms of a capitalist system, positioning workers' labour power and gigs as quantifiable assets (Manuscript 1).

Workers also become customers of DPs, with the DP maintaining the locus of control over many facets of work. The profiles that represent workers on DPs create constraints and hierarchies of value for measuring the worth of workers; thus the profile templates and the attributes they allow workers to feature become governing texts. For instance, the way that profiles provide space for workers to verify their identity becomes a governing text. In on-demand platforms for institutional care, workers are required to submit proof of education and vaccination status. In marketplace platforms for home care, workers are invited to verify their identity via uploading a copy of their driver's license or verifying their phone number. In this instance when workers choose to share their data with the platform, they are rewarded with markers on their profile that make them appear more legitimate in the eyes of clients. These templates contribute to how DPs purposefully foster environments to encourage trust-building between workers and clients.

I found platforms also controlled the access workers had to information about the potential jobs. In both on-demand DP models and marketplace models, parameters for location could be set to display jobs in a particular geographic region; however, where jobs were not available in the worker-selected region, platforms seemed to override the workers' selection in order to display other jobs. Similarly, on marketplace DPs, jobs where the client was willing to pay more would be shown to workers who were willing to work for lower amounts without informing the worker that the pay could potentially be higher. This lack of transparency allowed DPs to show a lower pay range to workers seeking work, preventing the client from paying the highest amount they were willing to pay for services. This advantages the client over the worker. On-demand platforms included a specific rate of pay, so workers were better informed about the wages being offered before expressing interest in a job. On the on-demand platforms, competition for a finite number of jobs was severe, which kept workers on their phone watching for jobs to be listed. Workers who took time to seek more information about a job posted on an on-demand platform had time working against them; the opportunity to apply for or accept the job often disappeared while they read the details.

6.2.2 Self-Employment status and Institutional Invisibility

A key aspect of the worker-client relationship is dictated by the DPs, in that workers are considered self-employed and therefore not employees. Hiring workers via DPs also introduced risk for clients,

including organisations that used DPs such as hospitals and LTC homes. As self-employed workers, DP workers were not entitled to workers' compensation (Quinlan & Mayhew, 1999) or other protections such as deductions for Employment Insurance or Canada Pension Plan. Workers were responsible for claiming their own income as self-employed individuals, but regardless left unprotected in terms of workers' compensation unless they opted to pay for their own coverage. No workers in this study elected to pay for their own coverage due to the high cost. I could not find any information about how many independent contractors purchase optional workers' compensation coverage in Ontario in any field; this is a gap in the literature. A lack of workers' compensation means there is not any no-fault insurance in place that protects workers and organisations from financial loss in the case of injury. Without workers' compensation, either party can sue the other party (Manuscript 2).

I found distinct differences between marketplace versus on-demand platforms when it came to how pay was managed. Pay on marketplace platforms was not clearly stated as employment income or as cash jobs off the books. Marketplace workers seeking cash paying jobs "under the table" were taking risks contacting clients and asking for cash jobs if they were not planning to pay income tax as self-employed workers. Theoretically, these workers could be reported to the Canada Revenue Agency; or, if clients declared their expenses these workers who received payment but did not claim the income could be picked up in an audit. Compared to marketplace workers who sometimes talked about working under the table, on-demand platform workers sometimes spoke about saving money for paying income tax.

The view of gig work as recreating capitalist social relations between clients and workers is not new (Gandini, 2019). In applying Marcusean theory (Manuscript 1), I illustrated how worker and client roles and the capitalist social relations between these actors are re-created on DPs in two different models. Beyond this, digital technology rationality also constrains what can be done on platforms, disempowering workers and constructing a digital environment that promotes self-employment and gig work. Worker disempowerment relates to DPs' institutional invisibility. Invisibility of digital platform workers is discussed in other gig care work literature (Gruszka & Böhm, 2022; Gruszka et al., 2024). Gruszka and Böhm (2022) develop a framework for visibility, identifying multiple forms of visibility for workers. The first form of visibility they describe is institutional visibility, which refers to the visibility of platform workers to regulatory institutions in their jurisdiction (Gruszka & Bohm, 2022). Institutional visibility is care work that is formalized employment (Ticona & Mateescu,

2018). Ticona & Mateescu (2018) found that in writing, care platforms promoted formalized employment, but “in practice” they allowed workers and clients to easily set up informal work. They found a few platforms that had integrated systems for payment to workers from clients were more institutionally visible because the digital payment created a record of pay, and encouraged reporting of income taxes to the government; however, they ultimately determined that these systems were primarily aspirational and work often remained ‘off the books’ or ‘under the table’ (Ticona & Mateescu, 2018). I found that gig workers who used marketplace platforms were institutionally invisible, in that there was no record of their wages – or indeed any form of tracking payment – via the marketplace DPs. On the other hand, on-demand DPs contained some form of wage payment mechanism, even to the point that one on-demand DP tracked income for income tax purposes.

My research demonstrates that platform type (marketplace or on-demand) could relate to which gig work is more institutionally visible. The distinction between platform types is thus important as marketplace platforms are more likely to keep gig work in the shadows of institutional visibility compared to on-demand marketplace platforms where there is a record of earnings. Unlike Ticona and Mateescu (2018), who considered that some platforms were attempting to formalize paid care work, I found the difference of institutional visibility was by platform type. One of the platforms investigated by Ticona & Mateescu (2018) in the United States recommended formalized employment; however, the same platform in Canada lacked recommendations for formalized care employment. This may be because gig care platforms in the US have received more research and media attention than those in Canada, or because laws in the US are different for DPs. Despite the DPs recommending formalized care employment in the US, the platforms did not require or enforce formal employment (Ticona & Mateescu, 2018). Thus, institutional invisibility is a concern for platform workers, who may choose to work under the table or who may be unaware of the risks that come with under-the-table work.

In my research, a couple workers reported that one platform had offered remuneration only by Visa debit card (Manuscript 1). Though the DP eventually switched to e-transfer for payment, the use of Visa debit card for payment was confusing for workers. The platform had the locus of control in determining how earnings would be paid. The lack of institutional visibility is one way that DPs institutionalise informal work and present it as if it were a legitimate path for self-employment.

The lack of insurance in the informal work environment becomes the ruling relation – the norm for clients and care workers on DPs. For instance, workers did not participate in optional workers' compensation programs for self-employed workers because they sought to keep their work off the books. Some workers did not declare their income as self-employed workers, pointing to a lack of institutional communication between DPs and Canada Revenue. The lack of information on some care platforms about the liabilities of, and responsibilities for, self-employment seemed like a deliberate omission (Manuscript 3).

If the platforms were successful in providing more jobs, they might offer legitimate opportunity for workers who were able to earn enough. To be less precarious, workers would need to pay income taxes as a self-employed individual/independent contractor. Further, workers would have to be educated about how to obtain workers' compensation insurance as well as liability insurance to be adequately protected.

6.2.3 Personal visibility

Although workers may have institutional invisibility, they have personal visibility that comes from platform use. Mateescu & Ticona (2020) describe workers being made personally visible via their profiles on DPs. They posit that workers are subject to the visibility regime platforms create, in order to build their 'brand' as a worker – sharing information about themselves to make them visible to the platform and the client (Mateescu & Ticona, 2020). Similarly, ratings or reviews may be part of algorithms that make workers more visible to potential clients (Fetterolf, 2021; Wood & Lehdonvirta, 2022). Not only are the algorithms that make workers visible to clients in a DP not transparent, there are components (reviews) completed by the client, leaving workers' reputation at the mercy of whatever the review says. Other gig work literature outside the gig care work literature has demonstrated that workers have no recourse if they receive a poor rating or review (MacEachen et al., 2019). I found that marketplace workers put in the unpaid work of soliciting good reviews to acquire the trust of potential clients (Manuscript 3). I also found that on-demand platform customers (LTC homes and hospitals) could see reviews and make reviews of the worker that were not necessarily seen by workers (Manuscript 2). In any situation, the worker is in jeopardy of receiving a poor review without having options for defending themselves or contesting the review. This leaves the worker with little to no power over the evaluation of their work, despite being reliant on their profile and

reviews for future work. Other literature discusses workers engaged in the work of self-promotion, job finding and reputation management (Pulignano et al., 2024; Wood & Lehdonvirta, 2022).

How workers are made visible – via their profiles or reviews or ratings – is also constructed by technical rationality. By filling out online forms and ‘ticking boxes’, workers are constrained in how they represent themselves (Manuscript 1). Platforms may go further to contribute to how workers are perceived, such as the DP “BookJane” (now a software company that previously operated as a DP) which called workers “Janes”, inherently feminising the worker because gender was embedded in the platform’s name and brand. Additionally, referring to workers with the universal nomenclature of “Jane” downplays unique skills (or lack thereof), making it seem as if one worker is fungible with any other. This is all part of the commodification of care work; making care work appear as simple tasks, and workers kept in the place of laborers for DPs to profit from.

6.2.4 Manual review of hiring on on-demand DPs

My work found that for on-demand workers who applied to jobs, there was often a waiting period – a time when the worker was manually reviewed by the client company – and selected or not selected based on opaque criteria such as experience or ratings from previous jobs. Workers were not aware of what went on behind the scenes after they applied; however, from this institutional ethnography I found out that the hospital or LTC home manually reviewed the files of PSWs who applied. This resulted in waits for the PSWs who applied while the institution reviewed applications. It also meant that hospitals and LTC homes were making hiring decisions that were outside of the automation of the DP. The DPs were effectively only bringing forward potential applicants, and the locus of control was in the hands of the hiring party.

6.2.5 Unpaid labour and false hope

Among the downfalls for individuals using DPs to find work are the unpaid labour and the unfulfilled hope platforms instill with promises of flexibility. Workers in my study were aware of how much unpaid labour (e.g. the work of signing up for platforms and form-filling) was needed to sign up for work with on-demand platforms (Manuscript 1). While the onboarding process is an important part of vetting workers, the labour required by workers to successfully be screened for DPs was multiple hours. Other literature recognises the unpaid labour of gig workers involved in competition on DPs (Wood & Lehdonvirta, 2021); however to my awareness the work of creating profiles and meeting

screening requirements is not explored in other research. Workers perform this unpaid labour against the backdrop of a DP that promises flexibility and opportunity for entrepreneurs. Many of the workers in my study found this to be false hope (Manuscript 1). For instance, on-demand worker Ling initially hoped she would be able to obtain experience showing her starting “from the bottom up” via the DP; however, she realised this was not possible when she was not receiving any gigs. This demonstrates how workers can go through the unpaid labour of signing up for DPs only to find there is a lack of opportunity to work.

6.2.6 Safety considerations

My work found there were safety concerns with going to unfamiliar sites. This builds on a small body of literature of orientation in hospital and LTC homes and literature about safety in home and community care. Existing research shows staff training can be important for residents’ quality of life (Carrier et al., 2023). When DP workers are brought in on an on-demand basis to fulfil shifts in hospital and LTC homes, they need orientation to the site (Manuscript 2). My research adds that a lack of familiarity with the site made some workers feel under-prepared for the work they could face. As such, some selected only “constant observation” shifts where they would monitor one patient as opposed to “floor” shifts where they would have to work alongside other workers providing care to multiple patients.

Similarly, marketplace platform workers were also entering unfamiliar territory. For them, orientation would rely on a client’s ability to guide their work tasks. Before that even arose, however, workers would be subject to attending a home for a first time, without knowledge of the situation they were entering. Understanding the risks in a home is a prime concern in homecare (Jepsen et al., 2025). For employees in homecare, there is an organisation involved that knows the whereabouts of their workers and the client has been registered and undergone assessment to determine their needs. Thus, DP workers are at a disadvantage compared to homecare employees because there is no formal assessment or registration of the client, no organisational terms of service, and no recourse to the employer if things go wrong. Other literature discusses the challenges of working in the private home space of clients, such as feeling like a guest or lacking proper equipment or ergonomic setups (Bourgeault et al., 2012; Zeytinoglu et al., 2017).

How on-demand DPs vetted workers that they sent to organisations was a further concern. There was some question about workers having the proper PSW credentials, with one DP employee speaking about how workers provided falsified documents (Manuscript 2).

DPs are designed to elicit trust from users. I probed how marketplace DPs created a discourse of trust to persuade users. First, I considered workers' self-representation via how they turned to DP ratings for verification of their merit as good workers, in order to obtain the trust of potential clients. I also considered how workers trusted DPs would provide opportunities for jobs, including 'cash' jobs for some workers seeking under-the-table work.

While facing the ruling discourses of platforms, workers' jobs are made more precarious. Clients and organisations also may be at risk while at the same time paying the platform; overall, the DP business model has a clear advantage over their customers.

Consideration of safety during app work also brings into view a potential for a type of labour involved in precarious work: defensive labour. Defensive labour is the work of defending oneself from possible physical, emotional or economic risk while attempting to undertake a primary work task (Ladegaard et al., 2022). Ladegaard et al. (2022) suggest that precarious work, with its risks, increasingly forces workers to adopt defensive mechanisms, such as Uber drivers carrying mace due to a lack of preventive policy and protections. My research showed gig care workers as also having to adopt defensive behaviours such as notifying family and friends of their location, digitally sharing their location, meeting potential clients in public places, and even creating exit strategies in case the environment is unsafe. Unlike care workers who work for employers such as LTC homes, in homecare settings there is no formal employer who has vetted clients and confirmed their care needs as legitimate; gig care workers are left to assess the setting and potential risks for themselves. This is no small feat as homecare workers are regularly victims of workplace violence and harassment (Byon, Lee, et al., 2020; Sayin et al., 2021; Schnelli et al., 2023; Schnelli et al., 2021; Shanks, 2025; Zhong & Shorey, 2023). Type II workplace violence and harassment is perpetrated by clients or family members against a worker (Byon, Lee, et al., 2020). For workers who are self-employed, there is no employer to whom they can report workplace violence and harassment.

Recent gig work literature has begun to explore how harassment is possible in DPs due to various mechanisms of the platform (Nielsen et al., 2026). Nielsen et al. (2026) describe that DP work exposes workers to harassment both online and offline, depending on the type of platform. Online

workers may be subject to cyber-bullying (Stefano et al., 2020). Other gig literature reports workers feeling they are at increased risk of harassment due to their jobs as delivery drivers (Gregory, 2021). The physical risks associated with riding bicycles for delivery are also much discussed in gig work literature, (i.e., Gregory, 2021) though this is less relevant for gig care workers in on-site jobs. Other gig care literature reports that DP workers who work in homecare may be at heightened risk of sexual harassment due to people creating fake profiles to get in contact with workers who they have a “sexual interest” in (Jepsen et al., 2025). Workers in homecare who are traditionally employed also face risks of an unsafe work environment because home environments are not regulated under occupational health and safety protections the same way other workplaces are. Homecare workers generally are subject to physically awkward work environments that may lack the set up required for safe patient handling and transfers (Craven et al., 2012). Additional risks to homecare workers include verbal abuse, harassment, and physical violence from clients or family members (Jepsen et al., 2025; Sayin et al., 2021; Schnell et al., 2023; Schnell et al., 2021; Shanks, 2025; Zhong & Shorey, 2023).

6.2.7 Relational care as commodifiable gigs

The transfer of care labour from family members to low-wage, often immigrant and/or racialised women, is regularly discussed in traditional care literature (Macdonald et al., 2018; Martain, 2023; Shutes & Chiatti, 2012). This thesis relates peripherally to this large body of literature insofar as how DPs contribute to breaking relational care work down into commodifiable tasks or ‘gigs’. There is little in the gig care literature that addresses the social side of care work when care work is provided in a gig model (Huws, 2019; Schwiter & Steiner, 2020). Huws (2019) writes about how housework and childcare have been affected by technologies that change the type of labour; for example, she describes that where previously employing household help directly would be considered hiring “servant labour”, the insertion of platform mediation means this type of labour becomes “capitalist service labour” because *there is now a company profiting* from the work. Utilising Huws’ (2019) framework, what happens when publicly-provided care becomes privately paid gig care work is the transferring of formerly public service provided care labour to capitalist service labour. This is perhaps one of the most important findings of this thesis; that in a context where care is publicly-provided, the use of DPs between individuals does not just make private care work into gig work, but

it opens opportunity for publicly-provided care to devolve to capitalist service labour. DPs institutionalise precarious gig work that formerly may have been provided as public care via employment of workers by public service provider organisations.

Among the losses when publicly-provided care becomes capitalist service labour are the losses associated with lost employment for workers. Also enveloped in the losses are the mediating roles played by the employer or service provider organisation: the registration of care clients, the oversight of registered nurses, the integration with a network of registered care providers such as occupational therapists and physiotherapists, the vetting of clients' homes for safety, the occupational health and safety oversights provided through employment, the loss of workers' compensation and protections such as Employment Insurance, and potentially the institutional visibility associated with on-the-books payment.

6.3 Risk for clients and organisations

Most studies of platform workers focus the risks to workers of this work; however, my research shows that risks exist not only for workers – clients and organisations using DPs also are at risk when DPs are used.

Clients may be liable for self-employed DP workers who may injure themselves at work. In Ontario, household workers may be covered under the Employment Standards Act: “[...] consistent, scheduled work (e.g., a weekly housekeeper) may trigger employee status” (Adams & Spring Law, 2025). Whether a household worker brings their own equipment and tools, or directs their own activities, play into the classification of employee versus independent contractor under the Employment Standards Act (Adams & Spring Law, 2025). This can mean individuals hiring workers in their household are liable for workers' compensation insurance and statutory taxes (Adams & Spring Law, 2025). For clients such as Kyle who paid gig workers for his own care at home (Manuscript 3), liability could arise when hiring ‘gig’ care workers. However, Kyle described not being able to hire workers as employees due to the extra costs of such arrangements. He sometimes paid workers cash as independent contractors, which might be considered employment misclassification. Employment Standards Act law should be considered by clients and workers who engage in private caregiving in households.

Organisations must also be careful hiring supposed ‘independent contractors’ as these workers may not carry adequate insurance and organisations may be liable for injury should the worker experience

any illnesses or injuries during work (Manuscript 2). At the same time, organisations find the convenience of platforms alluring and. in my study, there were clearly instances where due diligence investigating the appropriate worker classification was not undertaken.

Organisations may pursue opportunities to hire workers with quicker, easier methods than directly hiring employees. For instance, hiring workers through temporary work agencies has been attractive to organisations. Cost cutting, increased flexibility, and avoidance of paying severance costs are some of the reasons temporary agencies are attractive to organisations (Jahn & Bentzen, 2012). Platform workers offer organisations these same benefits, with even fewer barriers because DP work is so unregulated. Yet the risk of employment misclassification still lurks in the shadows of this type of hiring practice as workers may be proven to be entitled to some benefits.

While organisations may find hiring workers through DPs seductively easy, this approach brings increased risk for patient safety. Temporary staff are less likely than permanent staff to know patients' histories in depth, recognize subtle clinical changes, understand informal care plans, or build longitudinal trust with patients (Castle & Engberg, 2008; Purcell et al., 2004). There is also variable service quality: inconsistent skill levels, different service standards across workers, limited onboarding or supervision, and lack of continuity of care (Castle & Engberg, 2008; Purcell et al., 2004). On the other hand, it is cheaper for employers to hire temporary workers, as no investment in the worker is needed, the workforce is easy to scale up and down, and most risk is shifted to the worker. This tension between the seductive allure of a flexible workforce and the quality of care is discussed elsewhere in literature. Studies show there is a negative outcome for quality of care when more agency staff are used. For instance, in aged care facilities in Australia, there are more complaints, missing people, assaults, and more resident hospitalisations when there are more agency staff (Ma et al., 2023). At the same time, there is room to argue that having agency staffing may be better in some instances than not having enough staff (Castle et al., 2007). Staffing levels are a complex construct with many factors that influence quality of care (Castle, 2008); full discussion of this issue is beyond the scope of this thesis. In addition to evidence that agency staffing affects the quality of care, agency staffing also has a negative impact on staff health and wellbeing (Lien, 2023; Miller et al., 2026).

A complexity in examining risk in relation to DP work is that organisations may perceive hiring workers to be 'risky' but at the same time this positioning makes workers vulnerable. Gig workers are

especially vulnerable when using DPs because if they make even a slight mistake they might be terminated (i.e. blocked from the platform) without notification or opportunity for refuting the reason (MacEachen et al., 2019). Therefore, gig care workers may be paradoxically both risky and at-risk; both are true.

6.4 Trust

The topic of trust runs throughout this thesis. There is very little literature on trust and platform care workers. What literature does exist mainly focuses on clients trusting workers. Even this literature is sparse (Healy & Pekarek, 2025); for an exception, see Jamieson et al., 2021 below. A gap in this literature on trust and caring platforms is workers trusting clients. There is little work that considers how workers might trust clients themselves (Ticona & Mateescu, 2018). I fill this gap in literature by considering workers trusting clients and clients trusting workers. My first manuscript mentions the need for adequate verification of marketplace workers given the work setting of private households in the homecare market. My second manuscript discusses clients trusting DPs to vet workers. My third manuscript examines trust in depth and considers that gig clients and workers both engage in social trust of the other party, and they are encouraged or persuaded to do so through the technology of DPs.

I was able to locate only one other author who has written about clients trusting care workers; Jamieson et al. (2021). Their study of care workers using a self-directed care app in Ontario (they are hired as employees, not gig workers) describe clients and key informants being concerned about inadequate vetting of workers by the platform company. The client participants in that study stated it was important that the platform be transparent with clients about their practice of not vetting workers and suggested that *in the case of self-directed care*, they as care recipients and family members could potentially do a better job of checking police records and references than “HR folk” on the platform (Jamieson et al., 2021).

The stance taken by participants in Jamieson et al. (2021) responsabilises the individual care recipient. Putting the onus on them to do the work of vetting is a neoliberal social view. In neoliberalism, individuals are seen as responsible for themselves; social protections and healthcare are marketised and the role of the state is minimised. It affects the way people in society think about responsibility. One of the more prolific authors when it comes to care gig work, Ticona, writes that platforms such as Care.com put the onus for safety checking clearly on the client’s family when hiring care workers (Ticona, 2020).

In manuscript 1, I show how technological rationality instills the social norms of capitalism into DP work, positioning workers as labour power and care as a quantifiable asset. People are comfortable with the roles they are familiar with, such as customer and worker. This may contribute to workers and clients ‘trusting’ the role of the other.

As gig work increases, datafication of the self or how the self is represented (Lupton, 2020), becomes increasingly important for workers. Gig work literature largely approaches this topic in the realm of discussing worker profiles, including the area of worker visibility (e.g., workers sharing photographs of themselves) as discussed later. The research in gig work primarily construes this with workers as the trustee and clients as the trustor.

Dating app literature offers alternative framings of trust among users. When it comes to trusting another user, dating app literature helps to explain how two parties trust one another when both are users of a DP, given that contacting clients and workers on DPs can be extremely challenging (Orth & Baum, 2024). Trust as explored in other app literature sheds light on more dimensions of trust. First, there is the notion that people trust algorithms to help them make a better match, such as is described in dating app literature (Hu & Wang, 2024). One worker in my study explicitly spoke to this, saying that she felt the DP was displaying the same job in multiple price ranges; therefore, she had a lack of trust in the algorithm.

The body of dating app literature is large; most relevant for this conversation is the research about the “safety work” of women who use online dating apps (Gillett, 2023). Women who use dating apps enter into the labour of guarding their own safety in using un-matching options via apps which prevents contact with a specific user, as well as reporting users to the app (Gillett, 2023). In gig care work, the DPs I investigated did not have these features so workers could not report clients or un-match from connections with other users. An issue with unmatching or blocking is that it does not inform the user that their behaviour was unacceptable; one author discusses this as the safety work of protection (blocking) versus the safety work of confronting (reporting) (Vares, 2024). Part of the reason these features may not be available in gig care work on DPs may be because, in marketplace DPs, messages between clients and workers often went to offline formats immediately to avoid the subscription fees associated with belonging to the platform and using it to message. While sharing of telephone numbers or email is not recommended on dating apps, in my experience it happened very quickly on marketplace platforms. This could leave workers with unwelcome contact. Though not

reported in these findings chapters, one worker described receiving repeated phone calls from a potential client offering large amounts of money to come over for an unclear purpose. She was suspicious of the potential client, but said the potential client used different phone numbers to continue calling her.

Dating app literature also talks about the verification of identity as a safety mechanism (Boyd, 2012; Stardust et al., 2023). In my research, one worker demonstrated how checkmarks showed that her driver's license and phone number were 'verified' and implied this information contributed to her visibility and trustworthiness in the eyes of other users. I did not see any client verification of identity on most marketplace DPs, although there was worker verification of driver's licenses and phone numbers. This placed the worker at greater risk than clients.

Furthermore, situating care as a mere gig may risk making care jobs seem like banal, unskilled work as opposed to intimate, relational work. When DPs' discourse presents the worker as a fungible form of labour, elements of personalised relational care are at risk of being overlooked. DPs may contribute to the devaluation of care labour by allowing for falsified documents (Manuscript 1). Organisations that have hired gig workers to work in hospital or LTC may be less trusting of DPs if they find workers' documents have been falsified. The work of providing documentation is also a potential barrier to workers building profiles to work on on-demand DPs (Manuscript 1).

6.5 Situating gig care work in the broader gig work environment

When mapping social relations on gig care work platforms, there is a distinction in the worker-client/customer relationship that differentiates it from other forms of gig work. I have already alluded to this work being more intimate and personal than other forms of gig work (i.e. delivery or ride-hail). Furthermore, by making personal care a "gig", the relational element and high interpersonal skill required, is overlooked. This quantification or commodification of personal care decreases the perceived value of the work. In the triangular relationship of worker, DP company, and client/customer, different DP models have different modes of operation but what this thesis shows is that the risk associated with using DPs is entirely on the worker and the user. DP companies across industries have developed a way to profit without liability.

Another key insight articulated in this thesis is that different types of workers may use different models of platforms for various reasons. I demonstrated that more educated workers with recognised credentials were more likely to use on-demand DPs where the pay and opportunities were better.

Conversely, workers who did not have formal education or who had credentials that were not recognised in a Canadian context were more likely to use marketplace platforms which paid less. Additionally, some took added risk by not declaring income (i.e. working under the table or off the books). This divides the DP workers into a hierarchy where some experience better working conditions. Aspects of these differences were related to immigration (lack of credential recognition), demonstrating how DPs replicate power imbalances and exacerbate things that happen in employment such as the racialisation of some types of work like low-paid homecare work. Thus the inequity between long-term care and hospital versus homecare employment(Zagrodney et al., 2022a, 2022b) is echoed on DPs.

6.6 Policy and practice environment

The key findings from this thesis have important policy and practice implications and occur in a particular (evolving) policy context. Since the beginning of this thesis work, there has been legislation introduced in the Province of Ontario aimed at curbing the use of agency staffing in hospitals and LTC homes. Although DPs typically define themselves as digital solutions to problems and not staffing agencies, two pieces of legislation in combination ensure that DP use is limited in hospital and LTC. First, any organisation providing staffing or doing recruiting was required to have a temporary agency license as of July 1, 2024 under the Employment Standards Act, 2000.

Organisations are prohibited from using companies they know not to have a license; a public page listing companies' license status is available on the Government of Ontario website. Second, a scare for agencies may have come with the proposed Healthcare Staffing Agencies Act, 2023, (not in force), which stated any healthcare staffing agency that is established after the date the Act comes into force must operate as a not-for-profit. There were furthermore several restrictions that would affect hospitals, LTC and existing agencies such as limits on how much the agency can charge, and limits on how much can be paid to individual workers above the regular wage. Additionally, healthcare staffing agencies that receive more than \$400,000 from healthcare entities would be subject to review by the Auditor General and their employees earning more than \$100,000 will be published on the Sunshine list. These changes would place severe restrictions on DPs that were operating as staffing agencies in healthcare. A somewhat revised version of the proposed Act, Healthcare Staffing Agencies Act, 2025, (not in force), passed first reading in June 2025. It would mandate many of the same limits on what agencies can charge as well as how much hospitals and

LTC homes can spend on agency staffing. Although it remains to see what might come out of the Ontario Legislature regarding agency staffing, it is clear there is will to reduce spending on agency workers. However, unless the Employment Standards Act, 2000 mandates that DPs operate as agencies there is still a risk that DPs can provide staff of independent contractors without paying workers' compensation insurance premiums. While the ESA implies that any organisation acting as an agency or recruiter would include DPs, this has not been explicitly stated.

Canada and other jurisdictions have implemented policies to help protect gig workers, but these have little impact on care workers who use digital platforms. In Ontario, Canada, there is a minimum wage policy for platform workers under the ESA; it is titled the Digital Platform Workers' Rights Act 2022. However, this policy is of limited protection because it only comes into play for the time a worker is considered actively 'working' and does not account for their waiting time, time driving home after delivery or drop off, and other unpaid labour (Workers Action Centre, 2025). Although of limited protection for on-demand platform workers such as Uber ride-hail drivers, this law may be beneficial for some marketplace DP workers.

After several years of fights between DP companies and workers about DP workers' rights falling primarily under the debate about worker status (as employees or self-employed) (Aloisi, 2022), the European Union came up with a plan that sometimes looks beyond worker status and considers the protection of platform workers more broadly (Countouris & De Stefano, 2025). These EU plans may have positive impact on digital care workers. EU Directive 2024/2831, while it does on occasion confer more rights to workers who meet the threshold for employees, lays out some protections for anyone who works via DP. The term 'person performing platform work' is defined in Article 2(1)(c) as "an individual performing platform work, irrespective of the nature of the contractual relationship or the designation of that relationship by the parties involved" (European Parliament & Council of 23 October 2024, 2024). The Directive aims to protect persons performing platform work from the lack of transparency of algorithmic management, including dismissal from platforms via algorithm (Countouris & De Stefano, 2025). Beyond this, the Directive outlines that EU member states should have a way to determine if a worker is a legitimately self-employed person or if they are employees (Countouris & De Stefano, 2025). Other protections afforded to DP workers under the Directive include that companies should consider worker safety. Though not uncriticised and yet to be tested in a court of law, Directive 2024/2831 is a promising and forward-looking step for protecting platform workers in Europe (Countouris & De Stefano, 2025).

In Canada and other countries such as New Zealand and various European countries, the misclassification of workers as self-employed has presented a barrier to many employment protections (MacEachen, de Rijk, et al., 2022). Classifying workers as employees would address most issues; however, there are other mitigations for addressing occupational health risk for platform workers. One suggestion is making platforms responsible for occupational health and safety (The Swedish Agency for Work Environment Expertise et al., 2025). Allowing workers to unite and form unions has often been promoted as a way for workers to fight for improved working conditions (The Swedish Agency for Work Environment Expertise et al., 2025); however, this places the onus on workers to organise themselves and be responsible for identifying areas to address through collective bargaining. Furthermore, rights to unionisation may not be the solution for a dispersed workforce as they would face challenges organising. Lastly, some workers do not wish to organise as they have “bought in” to the entrepreneur discourse (Mpofu et al., 2020).

Protecting workers from clients is another area for improved policy. Other research studies have discussed the importance of protecting workers from infectious disease, such as COVID-19 (MacEachen, Meyer, et al., 2022). My research showed a need for protecting on-location gig care workers from potential harms such as client harassment. In this area, literature suggests a first line of defense for protecting gig workers is to have customer rating tools so workers can report poor client behaviour or avoid customers with low ratings (Louzado-Feliciano et al., 2022). However, this measure has limitations; for instance, workers can be penalised for not accepting jobs (MacEachen et al., 2019). An additional measure suggested in research is providing workers with some sort of panic button (Mpofu et al., 2020). Having a panic button would require a response system and monitoring; given the off-app model for marketplace platforms, this method would not be of use for those workers. Calling public emergency lines would be the only alternative for marketplace workers. Overall, the regulation of DPs would improve workers’ safety and reduce vulnerabilities for all parties.

Lack of professional regulation

Platformising care work occurs in the context of another layer of regulation; PSWs are an unregulated profession and do not have a registry or title protection. This lack of formalisation of the occupation makes the risks for both patients and workers more pronounced. Workers lack a professional college or unifying body such as a union, making them more vulnerable to insecurity related to platform

work. Clients or patients lack the security of knowing they are hiring a vetted, insured professional (Hopwood & MacEachen, 2021). Professional Regulation has long been considered in the public interest (Adams, 2022). Risks of hiring a worker who is not part of a professional oversight body include potential for hiring people who have poor conduct at previous employers as well as people who have committed crimes but have had charges against them dropped (Hopwood & MacEachen, 2021; Hopwood et al., 2022). This risk is exacerbated by DPs with the lack of adequately vetting workers.

6.7 Strengths and Limitations

6.7.1 Recruitment of DP workers: Methodological contributions

A strength of this thesis is that it contributes to Institutional Ethnography for digital contexts. A further strength of this thesis is the method used for recruitment and data collection. Drawing on Institutional Ethnography (IE) as a method for this thesis was a strong method; it provided insights about how technological rationality shapes ruling relations which in turn shape worker actions and social relations. This differs from digital ethnography, which does not address ruling relations and how those shape social relations for workers. However, IE has similarities with methods used for digital ethnography. For instance, one author who conducted interviews with workers at a software company found that using platforms directly herself aided her in conducting the research: “By observing such interfaces, digital ethnographers can better understand everyday practices situated within interfaces” (Ritter, 2022). Similarly, I found that by using the DPs while posing as a customer to recruit workers, I became more familiar with the institutional practices of marketplace DPs. As Ritter (2022) describes, actual use and more than simple observation and walkthroughs with workers is beneficial for ethnographers examining digital platforms.

There are also ethical considerations unique to DP workers that are only beginning to be examined in scientific literature. One author, writing about online (cloud) workers, discusses how these workers are not offered informed consent processes but are ‘hired’ for micro-tasks such as completing surveys (Molina et al., 2023). Should completing research be considered a “gig”? This is a new frontier for DP researchers. One Australian author suggests that by using DPs to have workers complete research

as gigs, we have turned participation into a capitalist activity that is part of a value chain with the end result being research outputs (McKenzie, 2024).

The above approach differs from the practice that I and some others have attempted to undertake in research involving DP workers. While I used deception on DPs to recruit workers, none were considered as participants without providing informed consent about the research being conducted. Similarly, other researchers have considered the vital importance of anonymity for DP workers who are recruited on DPs, and who therefore risk being identified by DPs. A concern arises because platforms can see the interactions on platforms that take place between researchers and participants (Spilda et al., 2022). Avoiding such surveillance by DPs requires researchers to move off of platforms to interact with participants or shield their own identity as researchers, both steps that I took to protect DP workers from identification. However, using DPs covertly raises additional ethical considerations which I navigated with a University of Waterloo Human Research Ethics Board: is the researcher, by breaking terms and conditions of the DP in using the platform for recruitment, placing themselves at risk of retaliation from the DP? To reduce risk in this area, I used a factory-reset computer, a Virtual Provider Network (VPN), and a pseudonym for myself as well as a disposable phone when signing up for platforms as a ‘customer’. Though seldom explored in literature, these types of ethical considerations must be considered more and more in a world increasingly permeated by DPs. One group of researchers, facing the same challenges I faced in recruiting DP workers, described “ethical and methodological pitfalls” in a recent paper (Orth & Baum, 2024). Traditional methods for recruiting participants who work in private homes – even finding online groups of these workers – has provided little opportunity for engaging with domestic workers (Orth & Baum, 2024).

6.8 IE insights and Ruling Relations

The use of IE is a strength of this research. As described in the manuscripts, DPs become the ruling relation for how workers go about finding jobs, and how they interact with the DPs is coordinated by text on platforms. This technical rationality constrains the workers in how they will represent themselves online. An enabling rhetoric of entrepreneurship – a potentially false hope – also becomes a ruling relation as workers subscribe to DPs that position them in the role of self-employed persons. In their practices using platforms, workers are relegated to form-filling and button pushing; their ‘self-employment’ autonomy exists in a very limited way, off the app in the ability to choose to use a DP or not. Once participating in DP use, workers’ roles were constrained by technical rationality for

the purposes of finding a job. For instance, the work of signing up for a DP ruled how platform workers would be recognised on DPs. Verification of phone numbers and drivers' licenses provided workers with checkmarks on their profiles. This was part of platforms' ruling relations as the platform 'legitimised' workers with these texts, making them appear as though they were more legitimate than workers who did not have checkmarks. It was suspected by workers on some platforms that these 'verified' workers may appear higher on client searches than workers who were not verified. Ultimately, how workers appear to potential clients is shaped by the ruling relation of platforms which position workers as self-employed people able to fill tasks (or shifts) at the push of a button. The relational reality of care work is missing from platforms as they formulate the worker profiles, as shifts are described and posted, and as DPs push shifts to workers' smart phones.

6.8.1 Limitations

There are several limitations to this thesis. First, a key limitation was the inability to observe workers performing their jobs, due to the intimate nature of caregiving. Second, observing the workers using the DPs was not possible as often as I hoped; most participants did not have two devices so they were joining their interviews on the same device they used for accessing the DP. Another limitation of this thesis was that when I used the DP to recruit workers via posing as a customer, I was only able to pose as a customer on marketplace platforms; I could not recruit participants from on-demand platforms because they do not allow individuals to hire workers. An additional limitation was that this study focused on Ontario's context and a particular group of gig care workers, so cross-national or cross-sector comparisons could be valuable.

A potential limitation of this thesis is that I did not examine workers' legal status to work in Canada. I chose not to inquire about this as I felt it would shut down workers' openness to sharing information with me, and potentially rupture the capacity to build rapport. Nevertheless, this topic warrants additional research given that gig workers are sometimes migrants who do not have legal rights to work in the country where they use platforms (Sun et al., 2025).

Due to the on-platform recruitment approach, I agreed with the ethics board not to name platforms utilised in this research. This risk-averse approach has limited how much I can dissect and divulge platforms' gender-slanted discourse and design. Although this is a serious limitation in this work, the trade-off was being able to recruit an adequate number of participants.

One way I attempted to strengthen this thesis was by having the workers describe their activities and send screen shots of the apps, to understand what they were doing and seeing. An additional strength of this thesis is that using the DPs to recruit marketplace care workers ensured that participants were legitimate users of the DPs. In this thesis, I was also able to explore the experience of clients by interviewing two clients as well as taking on the role of client for the purposes of recruiting workers. This contributed to insights such as realising that workers post their phone numbers on their profiles, and insight about the number of workers in some urban areas compared to other less densely populated areas. In this study's Institutional Ethnographic approach, the discourse of platforms is evidenced in the actions of workers and clients. A strength of this work is how it draws out the texts of DPs to demonstrate how platform work is discursively constructed.

6.9 Recommendations and Future Research Directions

The rise of gig care calls for new protections. Policymakers should recognize that many platform care workers are effectively doing jobs that would traditionally be covered by employment law. For example, the new EU Platform Work Directive explicitly seeks to address precisely these gaps: it introduces a rebuttable presumption of employment when platforms control work (shifting the burden away from workers) and requires transparency around algorithms and working conditions. Similarly, Ontario's Digital Platform Workers' Rights Act (2022) now mandates minimum wage for "engaged" time, written terms for pay, and other disclosures – but stops short of covering unpaid waiting time or providing workers' compensation. My research underscores the need for such laws to be extended to on-site care contexts (not just drivers or delivery). In practice, organizations and clients using platforms must exercise greater diligence: hiring entities should verify credentials and orientation, and platforms should build in safety features (such as the ability to report problematic users or vetting care clients). At minimum, clients and care institutions should be made aware that hiring gig workers carries insurance and liability implications. Future research should further consider more than just workers, delving into how DP clients are impacted by the structure and power of DPs. For instance, in the area of organisations using DPs to hire workers, more empirical work about the impact of no-show workers, a potential for poorly performing care workers, and legal liability for self-employed workers' injuries due to a lack of workers' compensation insurance coverage could be the subject of research in other jurisdictions.

Future work could also examine how algorithmic management (beyond simple matching) shapes care quality and worker well-being, or explore client perspectives more deeply. Contacting the appropriate participants in an ethical way requires additional consideration; particularly, how might one go about contacting clients who use DPs?

An additional area for further research is examination of the quality of gig care compared to the care that occurs in circumstances of employment. Are self-employed workers equipped to provide the same level of professional care as employees who work for homecare organisations or as LTC or hospital employees?

It will also be important to study the impact of emerging regulations: for instance, will the EU Directive or Canadian Employment Standards Act reforms for temporary agencies meaningfully change DP practices?

6.10 Conclusion

The three studies in this dissertation converge to show that digital care platforms systematically entrench precariousness in gig care work. Across both on-demand and marketplace models, platform technologies reconfigure care into commodified gigs, replicating capitalist labor relations through technological design. By examining platform design as having ruling relations, I show how technology shapes everyday power dynamics. Instead of being neutral tools, platforms implement a ruling discourse of entrepreneurial self-employment. This reproduces a familiar pattern: care labor is treated as a countable commodity rather than a social good. The result is that existing vulnerabilities in care work are amplified. My work also shows that DPs are risky for organisations and individuals who use them to hire care workers. Hospitals and agencies may gain flexibility by using gig staff, but patients lose continuity and workers lose stability. Organisations may not have opportunity to properly vet staff, train staff, or insure staff. Private clients gain access to more services when they use DPs, but then they shoulder all the risk when something goes wrong. The primary contribution of this dissertation is revealing day-to-day experiences of care gig workers, filling a gap in the literature on location-based care platforms. Additionally, I contribute to the gig work literature a view of risk involved for clients using DPs. Methodologically, this work demonstrates the utility of institutional ethnography in digital settings. This dissertation's findings underscore that without intervention, platformisation will deepen inequalities in care, with care labour risks becoming even more

precarious and fragmented. Addressing this requires not only policy fixes, but also reimagining how society values and organizes care.

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Appendix A

Ethics Approval #45108

UNIVERSITY OF WATERLOO

Notification of Ethics Clearance to Conduct Research with Human Participants

Principal Investigator: Ellen MacEachen (Stothers) (School of Public Health Sciences)

Student investigator: Pamela Hopwood (School of Public Health Sciences)

Collaborator: Catherine Tong (School of Public Health Sciences)

Collaborator: Ivy Bourgeault (University of Ottawa)

Collaborator: Basak Yanar (Institute for Work and Health)

File #: 45108

Title: Experiences of women performing gendered care work via digital platforms

The Human Research Ethics Board is pleased to inform you this study has been reviewed and given ethics clearance.

Initial Approval Date: 03/24/23 (m/d/y)

University of Waterloo Research Ethics Boards are composed in accordance with, and carry out their functions and operate in a manner consistent with, the institution's guidelines for research with human participants, the Tri-Council Policy Statement for the Ethical Conduct for Research Involving Humans (TCPS, 2nd edition), International Conference on Harmonization: Good Clinical Practice (ICH-GCP), the Ontario Personal Health Information Protection Act (PHIPA), the applicable laws and regulations of the province of Ontario. Both Boards are registered with the U.S. Department of Health and Human Services under the Federal Wide Assurance, FWA00021410, and IRB registration number IRB00002419 (HREB) and IRB00007409 (CREB).

This study is to be conducted in accordance with the submitted application and the most recently approved versions of all supporting materials.

Expiry Date: 03/25/24 (m/d/y)

Multi-year research must be renewed at least once every 12 months unless a more frequent review has otherwise been specified. Studies will only be renewed if the renewal report is received and approved before the expiry date. Failure to submit renewal reports will result in the investigators being notified ethics clearance has been suspended and Research Finance being notified the ethics clearance is no longer valid.

Level of review: Delegated Review

Signed on behalf of the Human Research Ethics Board



Joanna Eidse, Research Ethics Officer, jeidse@uwaterloo.ca, 519-888-4567, ext. 47163

This above named study is to be conducted in accordance with the submitted application and the most recently approved versions of all supporting materials.

Documents reviewed and received ethics clearance for use in the study and/or received for information:

Appendix B

Ethics Approval #45687

UNIVERSITY OF WATERLOO

Notification of Ethics Clearance to Conduct Research with Human Participants

Principal Investigator: Ellen MacEachen (Stothers)

Student investigator: Pamela Hopwood

Collaborator: Catherine Tong

Collaborator: Basak Yanar (Institute for Work and Health; Also Assistant Professor at Dalla Lana School of Public Health (U of T))

Collaborator: Ivy Bourgeault (University of Ottawa)

File #: 45687

Title: In-app recruitment of women performing gendered care work via digital platforms

The Human Research Ethics Board is pleased to inform you this study has been reviewed and given ethics clearance.

Initial Approval Date: 10/13/23 (m/d/y)

University of Waterloo Research Ethics Boards are composed in accordance with, and carry out their functions and operate in a manner consistent with, the institution's guidelines for research with human participants, the Tri-Council Policy Statement for the Ethical Conduct for Research Involving Humans (TCPS2 2022), the Ontario Personal Health Information Protection Act (PHIPA), and all laws and regulations of the province of Ontario (as applicable). Additionally, CREB operates in a manner consistent with the International Conference for Harmonization of Technical Requirements for Pharmaceuticals for Human Use (ICH) Guidance E6(R2): Good Clinical Practice, the International Organization for Standardization of Good Clinical Practices (GCP) as set out by ISO 14155 - Clinical investigation of medical devices for human subjects, Part C, Division 5 of the Food and Drug Regulations, Part 4 of the Natural Health Products Regulations, Part 3 of the Medical Devices Regulations. Both Boards are registered with the U.S. Department of Health and Human Services under the Federal Wide Assurance, FWA00021410, and IRB registration number IRB00002419 (HREB) and IRB00007409 (CREB).

Expiry Date: 10/14/24 (m/d/y)

Multi-year research must be renewed at least once every 12 months unless a more frequent review has otherwise been specified. Studies will only be renewed if the renewal report is received and approved before the expiry date. Failure to submit renewal reports will result in the investigators being notified ethics clearance has been suspended and Research Finance being notified the ethics clearance is no longer valid.

Level of review: Full Committee meeting date 09/21/23 (m/d/y)

Signed on behalf of the Human Research Ethics Board



Karen Pieters, Manager, Research Ethics, karen.pieters@uwaterloo.ca, 519-888-4567, ext. 41495

Appendix C

Workers: Organisational Letter



School of Public Health Sciences

University of Waterloo

[Insert Date]

Dear *[Insert Name]*,

This letter is a request **[name of organization]**'s assistance with a project I am conducting as part of my PhD thesis in the School of Public Health Sciences at the University of Waterloo, Ontario, under the supervision of Dr. Ellen MacEachen. The title of my research project is **Experiences of women performing gendered care work via digital platforms** I would like to provide you with more information about this project that explores how digital platforms ("apps") are used to hire self-employed/contract Personal Support Workers for shifts/clients.

The purpose of this study is to understand how apps affect care giving work. Knowledge and information generated from this study may help other researchers, policy makers, and workers and companies interested in work conditions for PSWs.

It is my hope to connect with PSWs who use apps to find shifts/clients to invite them to participate in this research project. It is important to understand how this model of work affects their work conditions. During this study, I will be conducting interviews with PSWs to gather their experiences using apps. At the end of this study the publication of this thesis will share the knowledge from this study with other researchers, policy makers, and companies interested in PSW work conditions via presentations or publications.

To respect the privacy and rights of the *[name of organization]* and its members, I will not be contacting people directly. **I would like to provide you with a poster to be distributed at your discretion.** Contact information for me and my supervisor will be contained on the poster. If a PSW

is interested in participating they will be invited to contact me, *Pamela Hopwood*, to discuss participation in this study in further detail.

Participation of any PSW is completely voluntary. Each worker will make their own independent decision as to whether or not they would like to be involved. All participants will be informed and reminded of their rights to participate or withdraw before any interview, or at any time in the study. PSWs will receive an information letter including detailed information about this study, as well as a consent form.

To support the findings of this study, quotations and excerpts from the stories will be labelled with pseudonyms to protect the identity of the participants. Names of participants will not appear in the thesis or reports resulting from this study. Participants will not be identified by name or location: however, the app companies they have experience with, their occupation (PSW), gender and race/ethnicity will be described.

No paper notes will be collected. All electronic data will be stored for at least 7 years on a secure server with no personal identifiers. Finally, only myself and my supervisor, Dr. Ellen MacEachen, in the School of Public Health Sciences at the University of Waterloo will have access to these materials. There are no known or anticipated risks to participants in this study.

I would like to assure you that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board. However, the final decision about participation belongs to the workers.

If you have any questions regarding this study or would like additional information to assist you in reaching a decision about distributing materials, please contact me by email at

pjhopwoo@uwaterloo.ca You may also contact my supervisor, Ellen MacEachen at ellen.maceachen@uwaterloo.ca or 519-888-4567, ext. 37248

I hope that the results of my study will be beneficial to your organization, to workers and companies interested in the occupational conditions of PSWs, as well as the broader research community. I look forward to speaking with you and thank you in advance for your assistance with this project.

Yours sincerely,

Pamela Hopwood

PhD Candidate
School of Public Health Sciences
University of Waterloo

Dr. Ellen MacEachen
Professor, Director
School of Public Health Sciences
University of Waterloo

Organization Permission Form

We have read the information presented in the information letter about a study being conducted Pamela Hopwood in the School of Public Health Sciences at the University of Waterloo, Ontario, under the supervision of Dr. Ellen MacEachen at the University of Waterloo. We have had the opportunity to ask any questions related to this study, to receive satisfactory answers to our questions, and any additional details we wanted.

We are aware that the name of our organization will not be used in the thesis or any publications that comes from the research.

We were informed that this organization may withdraw from assistance with the project at any time. We were informed that study participants may withdraw from participation at any time without penalty by advising the researcher.

We have been informed this project has been reviewed by, and received ethics clearance through a University of Waterloo Research Ethics Board and that questions we have about the study may be directed to Pamela Hopwood at pjhopwoo@uwaterloo.ca or Ellen MacEachen at ellen.maceachen@uwaterloo.ca or 519-888-4567, ext. 37248

If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or reb@uwaterloo.ca.

Pamela Hopwood, PhD Candidate
School of Public Health Sciences, University of Waterloo

Dr. Ellen MacEachen, Professor, Director
School of Public Health Sciences, University of Waterloo

We agree to help the researchers recruit participants for this study from among the members of **[name of organization]**

☐ YES ☐ NO

Director Name: _____ (Please print)

Director Signature: _____

Board of Directors Representative Name: _____ (Please print)

Board of Directors Representative Signature: _____

Witness Name: _____ (Please print)

Witness Signature: _____

Date: _____

Appendix D

Workers: Recruitment poster

Self-employed and independent contractor

PSWs needed for research about apps.



Are you a woman Personal Support Worker? And do you use apps like...

- ☐ **Staffy**
- ☐ **care.com**
- ☐ **MyCareBase**

I am looking for self-employed PSWs who use apps to find work (clients or shifts) to take part in a research study about how digital platforms (apps) work and how they affect work conditions for PSWs.

We will conduct a brief screening phone call (3 questions) to confirm if you are eligible. If you are eligible and choose to take part in this study, your participation will consist of **showing the student researcher how you use the app**, and a video interview that would take approximately 60 minutes of your time. You will be asked if you are comfortable providing screen shots of the app. In appreciation for your time, you will receive *\$50.00 remuneration via e-transfer*. For more information about this study, please contact:

Pamela Hopwood at pjhopwoo@uwaterloo.ca

This study has been reviewed by and received ethics clearance through a University of Waterloo Research Ethics Board.

Appendix E

Workers: Screening

Screening questions

Thank you for taking the time to speak to me to complete our screening questions. As a reminder, this research study examines digital platforms (apps) used for connecting care givers with end-users.

The reason why we ask screening questions is to ensure that people who we include in the study have the kind of experience using the type of digital platform or app that we are looking for, and to make sure you meet our inclusion criteria. I want you to know that it is your choice about whether or not you want to answer any of these questions. You can decline to answer any of the questions I ask you. Also, if you do not become a participant for this study, we will immediately delete all information you have provided us.

1. What province do you live in? _____

If NOT Ontario, say:

Thank you for your interest in the study; however, we are looking for participants who live and work in Ontario.

2. Are you a self-employed Personal Support Worker (also called an “independent contractor”) working as a resident assistant or home care provider?

If No, say:

Thank you for your interest in the study; however, we are looking for participants who are self-employed PSWs or personal care providers.

3. Do you have experience looking for work via an app, or using an app to find shifts or work contracts, within the last two years? For example, GotCare, Eldercare.com, Mycarebase, Staffy, StaffStat, BookJane, etc.

If No, say:

Thank you for your interest in the study; however, we are looking for participants who have experience looking for work using an app at some point in the last two years.

If Yes, say:

Thank you for completing our screening questions. I will be in touch by <<expected date>> to let you know if you have been selected to participate and set up an interview.

Appendix F

Workers: In-App Advertisement

Seeking experienced care worker for one time (casual) opportunity. 2 hours. Pay: \$22 per hour. For more info please... [Select a, b, c, or d depending on content restrictions/filters digital platform may have]

Options:

- a) **State: “Please see <https://www.qualtrics.ca...>”**
 - a. Site will direct worker to a contact form asking user for email address
 - b. Form will be created with a free Qualtrics survey account
 - c. Qualtrics account will be created with alias and alias email
 - i. Once the workers’ email is received via Qualtrics, I will
 - 1. send an email from the alias email address
 - 2. The email will state d) “Can you please meet me online for an interview on (date). What time is convenient for you?”

If pasting the Qualtrics link is not possible due to content filters in the digital platform:

- b) **State: “Please email me at aliasemail@email.com”**
 - a. Once an email is received, a reply will be sent from the alias email
 - b. The reply will state d) “Can you please meet me online for an interview on (date). What time is convenient for you?”

If neither link or email are possible due to content filters in the digital platform:

- c) **State: “Please call me at ### [Disposable phone number]”**
 - a. Disposable phone purchased by a friend in a location other than Waterloo, with cash
 - b. On the phone, the researcher will state: I would like to email you to set up an interview.

If neither a, b, or c is possible:

- d) **State: “Can you please meet me online for an interview on (date). What time is convenient for you?”**
 - a. Arrange date and time
 - b. Provide link to meet: <https://meet.jit.si/>
 - i. Jit.si is a highly encrypted platform (‘hop-to-hop’ technology)
 - ii. Can create any meeting name with no .com or .ca or .org so does not get picked up by surveillance on the platform
 - c. Full disclosure and offer opportunity to participate

Appendix G

Workers: Information and Consent Letter



Information-Consent Letter: Personal Support Workers

Title of the study: Experiences of women performing gendered care work via digital platforms

Principal Investigator/Faculty Supervisor:

Ellen MacEachen, School of Public Health Sciences, University of Waterloo
519-888-4567 ext. 47248
ellen.maceachen@uwaterloo.ca

Student Investigator:

Pamela Hopwood, School of Public Health Sciences, University of Waterloo
pjhopwoo@uwaterloo.ca

Dear potential participants,

To help you make an informed decision regarding your participation, this letter will explain what the study is about, the possible risks and benefits, and your rights as a research participant. If you do not understand something in the letter, please ask one of the investigators prior to consenting to the study. You will be provided with a copy of the information and consent form if you choose to participate in the study.

Invitation to participation/What is the study about?

You are invited to participate in a research study. The purpose of the study is to learn about the use of digital platforms (e.g., smartphone apps) for in-person caregiving work and how the apps influence work conditions. Other research has shown that digital programs can monitor workers, set goals, manage performance, perform scheduling, manage compensation, and terminate workers [1]. Little is known about how workers use apps to find caregiving work, or how the use of an app affects the work conditions. This research is a **PhD thesis project** for Pamela Hopwood.

Your responsibilities as a participant

What does participation involve?

Participation in the study will consist of an approximately one-hour video-chat interview. You will be asked some demographic questions such as your age and gender identity. You will also be asked to discuss how long you have done caregiving work, how long you have used the app, the amount of work you find via the app and describe how you use the app and make decisions about working. You will be asked if you are willing to demonstrate how you use the app. (e.g., “Can you walk me through how you use the app?”)

You will be asked if you are willing to provide screen shots. Any identifying information will be removed from images as *we are only interested in how the app affects work and work-related choices.*

Interviews will be conducted online via a private Microsoft Teams meeting, at a time agreeable to the participant.

For interviews conducted over Microsoft Teams: Microsoft Teams has implemented technical, administrative, and physical safeguards to protect the information provided via the Services from loss, misuse, and unauthorized access, disclosure, alteration, or destruction. However, no Internet transmission is ever fully secure or error free.

Who may participate in the study?

The study will involve up to 20 female care workers. In order to participate in the study you must be over the age of 18 and have used a digital platform (e.g., app), to find elder care work in the last two years. The study will also involve 10 customers/end-users and 2-4 digital platform/app owners or managers.

Your rights as a participant

Is participation in the study voluntary?

- Your participation in this study is voluntary. You may decide to leave the study at any time by communicating this to the researcher.
- You may decline to answer any question(s) you prefer not to answer by requesting to skip the question.
- You can request your data be removed from the study up until the results are written, as it is not possible to withdraw your data once papers and publications have been submitted for publication.

Will I receive anything for participating in the study?

In appreciation of your time, you will receive a \$50 honorarium following completion of the interview. Participants who do not complete the interview will still be provided with an honorarium. *The amount received is taxable. It is your responsibility to report this amount for income tax purposes*

What are the possible benefits of the study?

Participation in this study may not provide any personal benefit to you. The study is expected to benefit the academic community and society by providing insight about how app-based caregiving work affects work conditions for women care workers.

A report will be provided to stakeholders such as caregiver associations, worker advocates (e.g., unions) and other stakeholders identified by researchers and an Advisory Committee.

What are the risks associated with the study?

There is a risk that participation in the interview may cause you to feel concerned about sharing your work-related information. We will attempt to minimize this risk by taking the utmost caution to properly de-identify any data (including interviews, transcripts and screen shots) to ensure these cannot identify you as an individual. Although the app company will be named, **any information that could be used to identify you as a participant will be removed from the interview.** Personally-identifying information, and location tags, dates or time stamp information will also be removed from all screen shots you choose to send.

Will my identity be known?

The research team will know which data is from your participation. This information will be confidential and only available to the research team. Anything in your data that could be used to identify you will be removed. (e.g., your name, locations).

Will my information be kept confidential?

Your identity will be kept confidential by assigning a pseudonym so that individual names are not associated with the data. Locations will be replaced with a general description (e.g., Replace Waterloo with “a city in Ontario”). Only the student researcher and Primary Investigator/supervisor will have access to the identification key linking your name to the de-identified data.

Your information will be securely stored on a password protected University Server. Data such as interview transcripts will be de-identified within seven days and saved to the password protected University Server. Copies will NOT be stored on mobile devices including laptops, thumb drives or recording devices. Research data will be retained for minimum of 7 years at which time it will be destroyed.

Questions, comments, or concerns

Has the study received ethics clearance?

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB 45108) If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 46005 or reb@uwaterloo.ca.

Who should I contact if I have questions regarding my participation in the study?

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please **contact a member of the research team listed on the first page** of the consent form.

Additional Guidance

Researchers are to be contacted for all general questions regarding the study. The ethics clearance information and the Research Ethics contact information is for ethical questions and concerns.

References

1. Shirmohammadi M, Beigi M, Richardson J. Subjective Well-Being among Blue-Collar Immigrant Employees: A Systematic Literature Review. *Human Resource Management Review* (2022):100914. doi: <https://doi.org/10.1016/j.hrmr.2022.100914>.

Consent form

By providing your consent, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

Title of the study: Experiences of women performing gendered care work via digital platforms

- ☐ I have read the information presented in the information letter about a study conducted by Dr. Ellen MacEachen and Pamela Hopwood, School of Public Health Sciences, University of Waterloo.
- ☐ I have had the opportunity to ask questions related to the study and have received satisfactory answers to my questions and any additional details.
- ☐ I was informed that participation in the study is voluntary and that I can withdraw this consent by informing the researcher.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB 45108) If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 46005 or reb@uwaterloo.ca.

For all other questions contact Pamela Hopwood at pjhopwoo@uwaterloo.ca

- i. I agree to my interview being audio recorded to ensure accurate transcription and analysis. (Yes or No)
- ii. I agree to allow digital images (e.g., screen shots) to be used in scientific presentations and/or publications with the understanding that I will not be identified by name. **(Yes or No)**
- iii. I agree to the use of anonymous quotations in any thesis or publication that comes from this research. (Yes or No)

I agree of my own free will to participate in this study (Yes or No):

Note: You do not need to sign and return this form because we will offer you the opportunity to consent verbally before the interview, by choosing yes or no when asked the above questions.

Participant name: _____ Date: _____

Participant signature: _____ Date: _____

Appendix H

Workers: Disclosure and Debriefing Script

As I mentioned in our video conversation on jit.si, in order to have the opportunity to meet you, I provided some incorrect information about myself. **I am looking for information about care work rather than the physical care work itself.** My name is Pamela. I'm a PhD student at a University in Ontario, and I'm doing a research study. about what it is like for caregivers to use digital platforms like [name of platform recruited from].

I am sorry if you were hoping for a physical care job. I tried other ways to reach workers on digital platforms first. Although I'm not hiring a worker for physical care work, **I am offering a paid research opportunity related to personal care work.** I would like to tell you about my research and invite you to participate in a research interview. More information is provided below.

Information and Consent

Title of the study: Experiences of women performing gendered care work via digital platforms

Principal Investigator/Faculty Supervisor:

Ellen MacEachen, School of Public Health Sciences, University of Waterloo

519-888-4567 ext. 47248

ellen.maceachen@uwaterloo.ca

Student Investigator:

Pamela Hopwood, School of Public Health Sciences, University of Waterloo

pjhopwoo@uwaterloo.ca

Dear potential participants,

To help you make an informed decision regarding your participation, this letter will explain what the study is about, the possible risks and benefits, and your rights as a research participant. If you do not understand something in the letter, please ask one of the investigators prior to consenting to the study. You will be provided with a copy of the information and consent form if you choose to participate in the study.

Invitation to participation/What is the study about?

You are invited to participate in a research study. The purpose of the study is to learn about the use of digital platforms (e.g., smartphone apps) for in-person caregiving work and how the apps influence work conditions. Other research has shown that digital programs can monitor workers, set goals, manage performance, perform scheduling, manage compensation, and terminate workers [1]. Little is

known about how workers use apps to find caregiving work, or how the use of an app affects the work conditions. This research is a **PhD thesis project** for Pamela Hopwood.

Your responsibilities as a participant

What does participation involve?

Participation in the study will consist of an approximately one-hour video-chat interview. You will be asked some demographic questions such as your age and gender identity. You will also be asked to discuss how long you have done caregiving work, how long you have used the app, the amount of work you find via the app and describe how you use the app and make decisions about working.

You will be asked if you are willing to provide screen shots. Any identifying information will be removed from images as *we are only interested in how the app affects work and work-related choices*.

Interviews may be conducted online via a private Microsoft Teams meeting or on jit.si, at a time agreeable to the participant.

For online interviews: Both Microsoft Teams and jit.si have implemented technical, administrative, and physical safeguards to protect the information provided via the Services from loss, misuse, and unauthorized access, disclosure, alteration, or destruction. (e.g., end-to-end encryption) However, no Internet transmission is ever fully secure or error free.

Participation in this study does not prevent you from using the digital platform however you usually would.

Who may participate in the study?

The study will involve up to 20 care workers. In order to participate in the study, you must be over the age of 18 and have used a digital platform (e.g., app), to find elder care work in the last two years.

Your rights as a participant

Is participation in the study voluntary?

- Your participation in this study is voluntary. You may decide to leave the study at any time by communicating this to the researcher.
- You may decline to answer any question(s) you prefer not to answer by requesting to skip the question.
- You can request your data be removed from the study up until the results are written, as it is not possible to withdraw your data once papers and publications have been submitted for publication.

Will I receive anything for participating in the study?

In appreciation of your time, you will receive a \$50 honorarium following completion of the interview. Participants who do not complete the interview will not be provided with an honorarium.

The amount received is taxable. It is your responsibility to report this amount for income tax purposes

What are the possible benefits of the study?

Participation in this study may not provide any personal benefit to you. The study is expected to benefit the academic community and society by providing insight about how app-based caregiving work affects work conditions for women care workers.

A report will be provided to stakeholders such as caregiver associations, worker advocates (e.g., unions) and other stakeholders identified by researchers and an Advisory Committee.

What are the risks associated with the study?

There is a risk that participation in the interview may cause you to feel concerned about sharing your work-related information. We will attempt to minimize this risk by taking the utmost caution to properly de-identify any data (including interviews, transcripts and screen shots) to ensure these cannot identify you as an individual. The app company will not be named. **Any information that could be used to identify you as a participant will be removed from the interview.** Personally identifying information, and location tags, dates or time stamp information will also be removed from all screen shots you choose to send.

Will my identity be known?

The research team will know which data is from your participation. This information will be confidential and only available to the research team. Anything in your data that could be used to identify you will be removed. (e.g., your name, locations).

Will my identity be kept confidential?

Your identity will be kept confidential by assigning a pseudonym so that individual names are not associated with the data. Locations will be replaced with a general description (e.g., Replace Waterloo with “a city in Ontario”). Only the student researcher and Primary Investigator/supervisor will have access to the identification key linking your name to the de-identified data.

Your information will be securely stored on a password protected University Server. Data such as interview transcripts will be de-identified within seven days and saved to the password protected University Server. Copies will NOT be stored on mobile devices including laptops, thumb drives or recording devices. Research data will be retained for minimum of 7 years at which time it will be destroyed.

Questions, comments, or concerns

Has the study received ethics clearance?

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB #45687). If you have questions for the Board, contact the Office of

Research Ethics, toll-free at 1-833-643-2379 (Canada and USA), 1-519-888-4440, or reb@uwaterloo.ca.

Who should I contact if I have questions regarding my participation in the study?

If you have any questions regarding this study or would like additional information to assist you in reaching a decision about participation, please **contact a member of the research team listed on the first page** of the consent form.

References

1. Shirmohammadi M, Beigi M, Richardson J. Subjective Well-Being among Blue-Collar Immigrant Employees: A Systematic Literature Review. *Human Resource Management Review* (2022):100914. doi: <https://www.sciencedirect.com/science/article/abs/pii/S1053482222000274>.

Consent Form [Note that you do not need to sign and return this form. You may answer the questions verbally at the interview]

By providing your consent, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

Title of the study: Experiences of women performing gendered care work via digital platforms

- ☐ I have read the information presented in the information letter about a study conducted by Dr. Ellen MacEachen and Pamela Hopwood, School of Public Health Sciences, University of Waterloo.
- ☐ I have had the opportunity to ask questions related to the study and have received satisfactory answers to my questions and any additional details.
- ☐ I was informed that participation in the study is voluntary and that I can withdraw this consent by informing the researcher.

"This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB #45687). If you have questions for the Board, contact the Office of Research Ethics, toll-free at 1-833-643-2379 (Canada and USA), 1-519-888-4440, or reb@uwaterloo.ca." For all other questions contact Pamela Hopwood at pjhopwoo@uwaterloo.ca

- iv. I agree to my interview being audio recorded to ensure accurate transcription and analysis.
- v. I agree to allow digital images (e.g., screen shots) to be used in scientific presentations and/or publications with the understanding that I will not be identified by name.
- vi. I agree to the use of anonymous quotations in any thesis or publication that comes from this research.
- vii. **I agree of my own free will to participate in this study.**

Appendix I

Workers: Interview Guide

A: Demographic questions

Assigned Pseudonym/Participant ID #: _____

1. Age:
2. Country of birth:
 - a. If other than Canada, how long have you lived in Canada? ____
3. Race/ethnicity:
4. Gender:
5. What app(s) do you work for?
6. How long have you done this work?
(bucket later)
7. Please indicate if you have worked for:
 - individual clients
 - retirement homes
 - long term care homes
 - other (please specify) _____
8. How many hours did you work in the last week? (e.g., Mon – Sunday)
9. How many hours do you work on average?

< 10

10-19

20-29

30-39

40-49

50 or more

B. In-depth questions

1. How would you describe the work you do?
2. Why did you start this work?
3. What work did you do previously?
 - a. Probe: How does this compare? What is different about this?
4. How do you find working via the app? Probe: work-life balance, quality of clients, pay rate
....
 - a. Can you describe the circumstances when you usually use the app? (e.g., home, car, transit.)
 - b. Do you consider the time spent using the app to find jobs/clients as work?

- c. What might interfere with or help your ability to use the app? (Probe – interruptions, relationships, wifi access, family needs, other responsibilities?)
- 5. How much control do you feel like you have over when and how much you want to work?
- Ask for examples**
- 6. How do you get matched to a job on the app?
- 7. How often do you find work when you want to work?
 - a. Do you find work at the specific times or days that you want to work?
- 8. How often do you turn down jobs that are offered to you? Are there any consequences to turning down jobs?
- 9. How long do you plan to keep working via the app?
 - a. Would you consider any alternatives to working via the app? Why/Why not?
- 10. How does the app keep track of your hours?
- 11. Do you know your pay beforehand?
 - a. Are there any deductions?
 - b. Does the app take a portion of your pay? What portion?
 - c. Is this transparent?
- 12. Would you be willing to show me how you use the app?
 - a. Does the app send any notifications to your phone? If yes, what information?
 - b. Can you tell me about opening the app? What do you see first?
 - c. Can you describe to me the first thing you do once you're in the app?
 - i. Explain to me what it is you're doing
 - ii. I noticed you _____. Can you tell me about why you did _____?
- 13. Are you willing to share some screen shots with me?

C. Policy-related questions

- 1. Have you ever missed work because you were sick?
 - a. Potential probes: How did this affect your income?
 - b. How were you able to make up the income, if at all?
- 2. Have you ever become ill or injured because of your work?
 - a. Potential probes: How did this affect your income?
 - b. How were you able to make up the income, if at all?
- 3. Have you ever taken any time off for child care or maternity leave?
 - a. Potential probes: How did this affect your income?
 - b. How were you able to make up the income, if at all?
- 4. Have you given any thought to your retirement?
 - a. Potential probes: How do you plan to pay for your retirement?
- 5. Do you have any private insurance for health care (e.g. drugs, illness/injury)
- 6. Do you have plans for what you would do if you were unable to find enough work?
 - a. Potential probes: How would this affect your income?
- 7. Do you know of any programs that could help you if you were unable to work?

D. Additional questions

- 1. How do you think your work could be improved?

2. Do you think gender is considered when clients decide to hire you or others? Why?
3. How do you think your work is affected because you are a (white/non-white) female?
4. Do you think race or ethnicity is considered when clients decide to hire you or others? Why?
(Probes – language same as client? Posting profile?)

Appendix J

Industry Informants: Email script

Hello (name),

My name is Pam Hopwood and I am a PhD student working under the supervision of Dr. Ellen MacEachen in the School of Public Health Sciences at the University of Waterloo. The reason that I am contacting you is that we are conducting a study that examines digital platforms (apps) used for connecting care givers with end-users.

We are currently inviting individuals who use apps to hire PSWs for elder care to participate in a screening phone call to see if they are eligible for this study. Individuals who work for companies and use an app to hire PSWs for shifts (e.g., for a home care agency or retirement home company) are also eligible to talk about their experience using the app.

Participation in this study involves a one-on-one online video interview (approx. one hour) with the student researcher. The interview will be like a conversation where the participant describes how the app works and how they use the app to hire PSWs for clients/shifts. In appreciation of your time commitment, you will receive remuneration of \$50.00. The interview would take place at a time that is convenient for the participant.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board.

If you are interested in this study and think you may be eligible, please contact me at pjhopwoo@uwaterloo.ca. Please provide your phone number and let me know when it would be convenient to contact you to conduct the screening and determine if you are eligible for this study. **Those who are eligible will be invited to set up a time for an interview after the screening call.**

Sincerely,

Pamela Hopwood

Appendix K

Industry Informants: Recruitment Poster

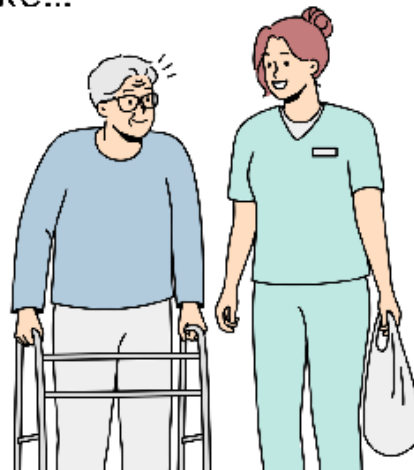
School of Public Health Sciences, University of Waterloo

Individuals who find **self-employed or independent contractor care workers to work in retirement homes, hospitals, care companies or private homes using a digital platform** - you may be eligible for a research study.

Do you use an app to hire Personal Support Workers for yourself or a family member in home care, or to work as resident assistants?

Do you use companies like...

- **Staffy.com**
- **NannyServices.ca**
- **BookJane 360**
- **care.com**
- **My CareBase**



We are looking for individuals who use these sort of companies to schedule or coordinate care workers such as PSWs for shifts. You may be eligible to take part in a study about how digital platforms work and how they affect work conditions for PSWs.

You will be asked to participate in a brief screening call of less than 5 minutes. If you are selected to take part in this study, your participation will consist of showing the student researcher how you use the app, and an interview that would take approximately 60 minutes of your time.

In appreciation for your time, you will receive
\$50.00 remuneration via e-transfer

For more information about this study, please contact:
Pamela Hopwood at pjhopwoo@uwaterloo.ca

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB #45687).

Appendix L

Industry Informants: Information and Consent Letter

Information-Consent Letter: Industry Informant

Title of the study: Experiences of workers performing care work via digital platforms

Principal Investigator/Faculty Supervisor:

Ellen MacEachen, School of Public Health Sciences, University of Waterloo
519-888-4567 ext. 47248
ellen.maceachen@uwaterloo.ca

Student Investigator:

Pamela Hopwood, School of Public Health Sciences, University of Waterloo
pjhopwoo@uwaterloo.ca

Dear potential participants,

To help you make an informed decision regarding your participation, this letter will explain what the study is about, the possible risks and benefits, and your rights as a research participant. If you do not understand something in the letter, please ask one of the investigators prior to consenting to the study. You will be provided with a copy of the information and consent form if you choose to participate in the study.

Invitation to participation/What is the study about?

You are invited to participate in a research study. The purpose of the study is to learn about the use of digital platforms (e.g., smartphone apps) for in-person caregiving work and how the apps influence work conditions. Other research has shown that digital programs can monitor workers, set goals, manage performance, perform scheduling, manage compensation, and terminate workers [1]. Little is known about how workers use apps to find caregiving work, or how the use of an app affects the work conditions. This research is a **PhD thesis project** for Pamela Hopwood.

Your responsibilities as a participant

What does participation involve?

Participation in the study will consist of an approximately one-hour video-chat interview. You will also be asked to discuss how the app works, the features it has, how care work is negotiated via the app, how workers and end-users connect via the app, if workers are vetted, and describe how you make decisions about developing and/or managing the app. **The name of your app/company or the app/company you use will not be published in any paper, presentation or material for this research study.**

You will be asked if you are willing to provide screen shots. Any identifying information will be removed from images and electronic files, as *we are only interested in how the app functions affect care work and work-related choices*.

Interviews will be conducted online via a private Microsoft Teams meeting, at a time agreeable to the participant.

For interviews conducted over Microsoft Teams: Microsoft Teams has implemented technical, administrative, and physical safeguards to protect the information provided via the Services from loss, misuse, and unauthorized access, disclosure, alteration, or destruction. However, no Internet transmission is ever fully secure or error free.

Who may participate in the study?

The study will involve 10-15 industry informants (e.g., customers/clients who use apps to hire workers, companies that use software to schedule workers, and app owners or managers, or developers). In order to participate in the study, you must be over the age of 18 have experience with care work apps or software, **where care work including elder care work can be procured**.

The study will also include approximately 20 app workers of various apps/platforms.

Your rights as a participant

Is participation in the study voluntary?

- Your participation in this study is voluntary. You may decide to leave the study at any time by communicating this to the researcher.
- You may decline to answer any question(s) you prefer not to answer by requesting to skip the question.
- You can request your data be removed from the study up until the results are written, as it is not possible to withdraw your data once papers and publications have been submitted for publication.

Will I receive anything for participating in the study?

In appreciation of your time, you will receive a \$50 honorarium following completion of the interview. You will be offered the honorarium even if you do not complete the interview. *The amount received is taxable. It is your responsibility to report this amount for income tax purposes*

What are the possible benefits of the study?

Participation in this study may not provide any personal benefit to you. The study is expected to benefit the academic community and society by providing insight about app-based caregiving work conditions for care workers.

A report will be provided to stakeholders such as caregiver associations, worker advocates (e.g., unions) and other stakeholders identified by researchers and an Advisory Committee.

What are the risks associated with the study?

There is a risk that participation in the interview may cause you to feel concerned about sharing your app-related information. We will attempt to minimize this risk by taking the utmost caution to properly de-identify any data (including interviews, transcripts and screen shots) to ensure these cannot identify you as an individual.

The app company will NOT be named, and any information that could be used to identify you as a participant will be removed from the interview. Personally-identifying information, and location tags, dates or time stamp information will also be removed from all screen shots you choose to send.

Will my identity be known?

The research team will know which data is from your participation. This information will be confidential and only available to the research team. Anything in your data that could be used to identify you will be removed. (e.g., your name, locations).

Will my information be kept confidential?

Your identity will be kept confidential by assigning a pseudonym so that individual names are not associated with the data. Locations will be replaced with a general description (e.g., Replace Waterloo with “a city in Ontario”). Only the student researcher and Primary Investigator/supervisor will have access to the identification key linking your name to the de-identified data.

Your information will be securely stored on a password protected University Server. Data such as interview transcripts will be de-identified within seven days and saved to the password protected University Server. Copies will NOT be stored on mobile devices including laptops, thumb drives or recording devices. Research data will be retained for minimum of 7 years at which time it will be destroyed.

Questions, comments, or concerns

Has the study received ethics clearance?

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB 45108) If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 46005 or reb@uwaterloo.ca.

Who should I contact if I have questions regarding my participation in the study?

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please **contact a member of the research team listed on the first page** of the consent form.

Additional Guidance

Researchers are to be contacted for all general questions regarding the study. The ethics clearance information and the Research Ethics contact information is for ethical questions and concerns.

References

1. Shirmohammadi M, Beigi M, Richardson J. Subjective Well-Being among Blue-Collar Immigrant Employees: A Systematic Literature Review. Human Resource Management Review (2022):100914. <https://doi.org/10.1016/j.hrmr.2022.100914>

Consent Form

By providing your consent, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

Title of the study: Experiences of workers performing care work via digital platforms

- ☐ I have read the information presented in the information letter about a study conducted by Dr. Ellen MacEachen and Pamela Hopwood, School of Public Health Sciences, University of Waterloo.
- ☐ I have had the opportunity to ask questions related to the study and have received satisfactory answers to my questions and any additional details.
- ☐ I was informed that participation in the study is voluntary and that I can withdraw this consent by informing the researcher.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB **45108**) If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 46005 or reb@uwaterloo.ca.

For all other questions contact Pamela Hopwood at [pjhopwoo@uwaterloo.ca](mailto:pjhoppwo@uwaterloo.ca)

- viii. I agree to my interview being audio recorded to ensure accurate transcription and analysis. (Yes or No)
- ix. I agree to allow digital images (e.g., screen shots) to be used in scientific presentations and/or publications with the understanding that I will not be identified by name. (Yes or No)
- x. I agree to the use of anonymous quotations in any thesis or publication that comes from this research. (Yes or No)

I agree of my own free will to participate in this study (Yes or No):

Note: You do not need to sign and return this because we will offer you the opportunity to verbally consent, answering above questions with Yes or No.

Participant name: _____ Date: _____

Participant signature: _____ Date: _____

Appendix M

Industry Informants: Screening Questions

Industry Informant Screening questions

Thank you for taking the time to complete this brief screening. You may choose to complete this screening or not. Answering any questions within is voluntary. It should take less than 5 minutes. Your responses will be deleted after the recruitment is finished. We are looking for a final sample of approximately 20 workers and 10-15 industry informants. Screening results will determine eligibility for the study, "Experiences of workers performing care work via digital platforms". Those who are selected to participate will be contacted by the researcher at the email address you provide. Participation involves a 1:1 video interview with the researcher via Microsoft Teams. You will be asked to demonstrate how you use the platform to find care workers.

1. This screening is for multiple participants. Do you

- use an app (like Care.com or My Care Base) to hire care workers for yourself or a family member? OR
- Does the company you work for (e.g., hospital, LTC) use a digital platform or software (e.g., a company like Staffy or BookJane) to fill shifts? OR
- Do you have experience as an owner, manager, developer or other role familiar with a digital platform company (e.g., Care.com, Staffy, BookJane) used to find care workers for various customers?

If NO to all, say:

Thank you for your interest in the study; however, we are looking for participants who have the required experience with digital platforms that we are doing research about.

4. This question is about the workers' employment classification. (If known) Are the workers temporary agency staff, or contract care workers (self employed):
- a. Self employed or Independent contractor
 - b. Temporary Agency worker
 - c. Employees
 - d. Other (please describe)?

If Not self-employed, sole proprietor or independent contractor , say:

Thank you for your interest in the study; however, we are looking for participants who have experience with self-employed PSWs or personal care providers.

5. What kind of workers are on the platform?

If Not Personal Support Workers, Health care aid/Resident Support aids say:

Thank you for your interest in the study; however, we are looking for participants who have experience hiring unregulated workers such as PSWs, health care or resident support aids.

6. What company or companies do you have experience with? (e.g., using the company to schedule or select contract care workers, or working for a digital platform company?)
- a. If not a platform for hiring independent contractors or self-employed workers, say:

If No, say:

Thank you for your interest in the study; however, we are looking for participants who have experience looking for workers using a platform used for hiring independent contractors or self employed workers. Examples include Staffy, BookJane 360, Care.com, Nannycare.ca, Eldercare.com, and Mycarebase..

If Yes, say:

Thank you for completing our screening questions. We will be interviewing a total of 10 care work industry informants, including app owners, managers, developers or people who schedule or select workers via a digital platform. We will also be interviewing 20 care workers. You will be asked how you use the app. The interview is expected to take approximately 30-45 minutes. Participants will be provided with a \$50 e-transfer in appreciation of their time. The ad and screening survey will be deleted when we have all of our participants. May we contact you if you are eligible and are selected to participate? (Eligible participants selected to participate will be contacted within ten business days of completing the screening) I will be in touch by <<expected date>> to let you know if you have been selected to participate and set up an interview.

Appendix N

Industry Informants: App Owner/Manager Interview Guide

- 1) How long has the app existed?
- 2) What are the main reasons you started the app?
- 3) What would you describe as the purpose of the app?
- 4) Can you describe for me how the app works?

- 5) Who uses the app to hire workers?
 - a) individual clients
 - b) retirement homes
 - c) long term care homes
 - d) other (please specify) _____

- 6) Do you know how many workers are hired via the app? (e.g., in a week or month?)
- 7) How many workers are part of the app?
- 8) What can you tell me about worker retention? (e.g., how long do workers stay with the app?)

- 9) What are some of the pros and cons that customers/end-users have about the app?

- 10) What are some of the pros and cons that workers have about the app?

- 11) How does the app keep track of worker hours?

- 12) Is payment brokered via the app or does the exchange occur directly between the worker and end-user?

- 13) How does the company receive payment for services? (e.g., how do you make a profit)

Policy-related questions

- 14) What would happen if a worker becomes ill or injured because of their work?
- 15) Do you have any insurance for the app?
- 16) Wrap-up questions
- 17) How does the app describe the type of care services provided?
- 18) Are there any implications of gender bias in the way care is described?
- 19) Do you think the app has any effect for workers based on their race/ethnicity? How? Why?
- 20) Is there anything I haven't asked you that you would like to tell me about the app?

Appendix O

Industry Informants: End User/Clients Interview Guide

- 1) How long have you/your company used the app to find care workers?
- 2) How has the app worked for you?
- 3) What would you describe as the purpose of the app for you?
- 4) Can you describe for me how you use the app?
- 5) How often do you use the app? (e.g., in a week or month?)
- 6) How often do you find workers when you need them?
- 7) What can you tell me about your experience with workers that you find on the app?
- 8) What are some of the pros and cons of the app?
- 9) What does the app do?
 - a) E.g. probe: does the app keep track of worker hours?
- 10) Is payment brokered via the app or does the exchange occur directly between the worker and end-user?
- 11) What information did you have to provide to use the app?
- 12) Do you/your company have to pay to use the app?
- 13) How does the company receive payment for services? (e.g., how do they make a profit)

Policy-related questions

- 14) What would happen if a worker becomes ill or injured because of working with you?
- 15) Do you have any insurance for workers? (probe: Workers' compensation? Liability?)

Wrap-up questions

- 16) How does the app describe the type of services available?
- 17) Is there anything I haven't asked you that you would like to tell me about the app?

Appendix P

Participant Appreciation Letter

Primary Investigator: Ellen MacEachen, PhD
Student Investigator: Pamela Hopwood, MSc.
School of Public Health Sciences
University of Waterloo
200 University Ave. W.
Waterloo, ON N2L 3G1

[Insert Date]

Dear ***[Insert Name of Participant]***,

I would like to thank you for your participation in this study entitled *Experiences of women performing gendered care work via digital platforms*. As a reminder, the purpose of this study is to identify the experiences of Personal Support Workers who use digital platform apps to find work. The perspectives of the end-users or clients who use the apps, and the owners or managers of digital platforms also contribute valuable information to understanding how the digital platforms or apps work.

The data collected during interviews will contribute to a better understanding of the work conditions for Personal Support Workers who use digital platforms to find work. It is important to understand how platforms or apps work as this form of technology is growing in the healthcare sector. The results of this study will help shed light on occupational health and safety, and policy circumstances related to the work environment.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB 45108/45687). If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or reb@uwaterloo.ca.

For all other questions contact:

Pamela Hopwood

pjhopwoo@uwaterloo.ca

Ellen MacEachen

ellen.maceachen@uwaterloo.ca

Your identity will be confidential. Once all the data are collected and analyzed for this project, I plan on sharing this information with the research community through conferences, presentations, and journal articles. If you are interested in receiving more information regarding the results of this study, or would like a summary of the results, please provide your email address, and when the study is completed, anticipated by August 2025, I will send you the information. In the meantime, if you have any questions about the study, please do not hesitate to contact me by email as noted below.

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Appendix Q

Oral Consent and Log

PhD Researcher:

“Hello. As a reminder, my name is Pam Hopwood and I am a PhD student at the University of Waterloo. Thank you for agreeing to participate in this research. First, I would like to ask if you have any questions about the information letter and consent form you received.

- {If No, proceed}

“I’d like to remind you that by providing your consent, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities. By consenting to participate, you agree you received and read the information presented in the information letter about the study, “**Experiences of women performing gendered care work via digital platforms**” that is supervised by Dr. Ellen MacEachen and part of my PhD research in the School of Public Health Sciences, at the University of Waterloo. You have had the opportunity to ask questions related to the study and have received satisfactory answers to your questions and any additional details. As a reminder, participation in the study is voluntary and you can withdraw this consent by informing the researcher.

“Now I will go ahead with the consent. Please **answer yes or no** to each question:

- I am aware the interview will be audio recorded to ensure accurate transcription and analysis. [Y/N]
- I give permission for the use of anonymous quotations in any publication or presentation that comes from this research. [Y/N]
- I agree to allow digital images (e.g., screen shots) to be used in scientific presentations and/or publications with the understanding that I will not be identified by name. [Y/N]
- I agree of my own free will to participate in the study. [Y/N]

“Thank you.

= [Fill out consent log below]

Oral consent log:

Pseudonym or PID#	Date	Agree to audio recording	Agree to use of anon. quotes	Agree to anon. digital images	Agree of free will to participate	Study results (Y/N)	Where to send study results?	Password for honorary transfer	Email for transfer

Appendix R

Coding Framework

Worker on-app experiences	
Accepting job (inductive)	On-app processes of accepting job or confirming shift, receiving and responding to offers
No jobs on DP (inuctive)	Worker experiences lack of opportunity
Worker - App use (apriori)	Anything about how worker uses app
Worker - App sign up (apriori)	Anything about process of registering for app, paperwork needed, perception of process of signing up. INCLUDE what they <i>think</i> the app will do (promises of app)
Worker experience overall	
Flexibility (apriori)	Workers' experiences of the app providing flexibility; include workers expectations even if not fulfilled
Innate caregiver (inductive)	Workers' perceptions of caregiving as "natural" or expressions of enjoying care work
Insecure work (apriori)	Workers' experiences of insecure work; do not double code with No jobs on platform
Worker – Demographics (apriori)	Answers to demographic questions
What's different - SE v Employee (inductive)	When there is a direct COMPARISON of
App processes	
App 'punishments' (inductive)	Any penalisation imposed by platform in perception of worker OR client
Job/worker search, choices, settings (apriori)	How workers can search or set preferences; how clients can search or set preferences
Pay (apriori)	Anything related to negotiating pay, receiving pay, making payment
Ratings (apriori)	Receiving or providing feedback via app e.g., starts, ratings, notes or reports
Shift details (inductive)	How information about shift is relayed ON app
Shift pros or cons (apriori)	Pros or cons of scheduling, hours, ability to schedule, time-related issues
General	
Client (apriori)	Anything about client needs, client safety (worker or client mention)
SE'd tax benefits (apriori)	Paying taxes or benefits, any social protections e.g., workers' compensation or insurance (workers or clients)
Social relations (apriori)	Interactions between app-worker, app-client, client-worker, etc.
What's Risky (apriori)	Worker or client experiences or impressions of what is risky

Why app (apriori)	Reasons for using app; fulfilled or not
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Glossary

Personal Support Worker: This term is used to refer to many kinds of unregulated care workers and has been used synonymously with terms such as health care aide, nursing assistant, personal care attendant and unlicensed personnel (Saari, Patterson, et al., 2018).

Precarious employment, precarious work: A broad construct of work with elements of precarity that may include work/employment arrangements (i.e., independent contractor) and work/job conditions (i.e., insecure income, hours).

Under-the-table or ‘off the books’ work: Work that is performed for cash and is not claimed as income by the worker.

Work arrangements, employment arrangements: The relationship between the worker and the employer or contractor and contracted worker.

Work conditions, job conditions: The conditions of the job