

Arendt in the Platformised World Labour, Work and Action on Digital Platforms

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Document Version Final published version

DOI: 10.22439/phd.24.2023

Publication date: 2023

License Unspecified

Citation for published version (APA): Charlton-Czaplicki, T. (2023). Arendt in the Platformised World: Labour, Work and Action on Digital Platforms. Copenhagen Business School [Phd]. PhD Series No. 24.2023 https://doi.org/10.22439/phd.24.2023

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WWW.CBS.DK

ISSN 0906-6934

Print ISBN: 978-87-7568-201-0 Online ISBN: 978-87-7568-202-7

DOI: https://doi.org/10.22439/phd.24.2023

ARENDT IN THE PLATFORMISED WORLD

Timothy Charlton-Czaplicki **ARENDT IN THE PLATFORMISED WORLD** LABOUR, WORK AND ACTION ON DIGITAL PLATFORMS Department of Digitalization (DIGI) PhD Series 24.2023 CBS K COPENHAGEN BUSINESS SCHOOL PhD Series 24.2023

Arendt in the platformised world

Labour, work and action on digital platforms

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Timothy Charlton-Czaplicki Arendt in the platformised world Labour, work and action on digital platforms

First edition 2023 Ph.D. Series 24.2023

© Timothy Charlton-Czaplicki

ISSN 0906-6934

Print ISBN: 978-87-7568-201-0 Online ISBN: 978-87-7568-202-7

DOI: https://doi.org/10.22439/phd.24.2023

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Foreword

Thanks are due to my supervisors, Attila Márton and Philipp Hukal, for their unwavering support, constructive criticism and close guidance; to my friends and colleagues, especially Philipp Schlüter, who read various versions of this dissertation and provided invaluable feedback; to my family, for enabling me to take the opportunity of writing a PhD; and to Sophie, whose loving support made it all possible.

Abstract

Platformisation—how institutions, organisations and cultural practices are reorganised on and through digital platforms—is a central area of research in the social sciences. The platformisation of *work* in particular receives scrutiny in academia and mainstream media. However, existing theories about a platformised future of work have focused predominantly on economic factors and leave a blind spot about how a transformation of our basic activities affects *political life*, i.e. our capacity for pluralistic interaction. This dissertation draws on Arendt's political theory to investigate this connection by mapping the impact of platformisation on human activity—labour, work and action—using an abductive research process composed of three empirical analyses: a sequence analysis of gig workers' careers, a topic model of remote gig workers' discourse and a qualitative content analysis of open source intelligence and investigation communities.

Interest in Arendtian political theory is cyclically resurgent and her ideas are regularly invoked to flag *totalitarian* developments in politics, law and technology. Yet, nowhere does Arendt formalise a theory to evaluate emergent phenomena. This dissertation engages with Arendt's writings and sources to construct a suitable analytical framework. By linking Arendt's ontology of activity with the qualities of the public realm, it becomes possible to trace how changes to the configuration of labour and work through platformisation can destabilise the *worldly* foundations of our political interaction. Arendt's central message is that the way we work and our capacity for political action are intimately connected. Work is not itself political, but it creates the necessary conditions for individuals to withdraw from their private lives into the public and openly engage in deliberative politics. Understood from an Arendtian perspective, the question about the future of work on platforms is always also a political question.

The findings suggest that platformisation both inhibits and enables *political life* by undermining the quality of the work process and allowing for new platform-enabled forms of hybrid *work-action* to be performed. Using the 'factory' and the 'polis' as leading images, this dissertation unpacks the *duality of platformisation* to define a set of recommendations for platform design and governance. It continues a tradition of applying social theory in Information Systems research by introducing an underutilised philosophical perspective to the scholarly discourse on platformisation. It further contributes to Arendt scholarship by developing a normative perspective on technology based on the *vita activa* and demonstrating how it can be used to analyse contemporary technologies 65 years after it was first published.

Oversigt

Platformisering—måden hvorpå institutioner, organisationer og kulturelle praksisser reorganiseres gennem digitale platforme—er et centralt forskningsområde inden for samfundsvidenskaberne. Især er platformiseringen af arbejde blevet en genstand for en grundig undersøgelse i den akademiske verden og i mainstream-medierne. De eksisterende teorier om en fremtidig platformisering af arbejde har imidlertid overvejende fokuseret på økonomiske faktorer og efterlader et blindt punkt med hensyn til, hvordan en omdannelse af vores grundlæggende aktiviteter påvirker det *politiske liv*, dvs. vores evne til pluralistisk interaktion. Denne afhandling trækker på Arendts politiske teori for at undersøge denne forbindelse. Afhandlingen kortlægger platformiseringens indvirkning på menneskelig aktivitet—*arbejde, fremstilling* og *handling*—ved hjælp af en abduktiv forskningsproces bestående af tre empiriske analyser. 1) En sekvensanalyse af gigarbejderes karrierer. 2) En emne-model af diskursen hos gigarbejdere. 3) En kvalitativ indholdsanalyse af open source-efterretnings- og efterforskningsfællesskaber.

Interessen for Arendts politiske teori er cyklisk genopstået, og hendes ideer påberåbes jævnligt for at påvise *totalitære* udviklinger inden for politik, lovgivning og teknologi. Alligevel formaliserer Arendt ingen steder en teori til vurdering af fremvoksende fænomener. Denne afhandling beskæftiger sig med Arendts skrifter og kilder for at konstruere en passende analytisk ramme. Ved at forbinde Arendts ontologi om aktivitet med kvaliteterne ved det offentlige rum bliver det muligt at spore, hvordan ændringer i arbejde og fremstilling kan destabilisere det verdslige grundlag for vores politiske interaktion. Arendts centrale budskab er, at den måde, vi arbejder på, og vores evne til politisk handling er tæt forbundet med hinanden. Arbejdet er ikke politisk i sig selv, men det skaber de nødvendige betingelser for, at den enkelte kan trække sig tilbage fra sit privatliv til det offentlige og åbent engagere sig i politik. Forstået ud fra et Arendtiansk perspektiv er spørgsmålet om fremtiden for arbejdet på platforme altid også et politisk spørgsmål.

Resultaterne tyder på, at platformisering både hæmmer og muliggør det politiske liv ved at underminere kvaliteten af arbejdsprocessen, men også give mulighed for nye platformsaktiverede former for hybride arbejds- og handlingsformer. Med "fabrikken" og "politiet" som undersøgende billeder udforsker denne afhandling *platformiseringens dobbelthed* for herigennem at definere et sæt anbefalinger til design og styring af platforme. Afhandlingen fortsætter en tradition for anvendelse af social teori i forskning i informationssystemer ved at indføre et ofte uudnyttet filosofisk perspektiv i den videnskabelige diskurs om platformisering. Den bidrager yderligere til Arendt-forskningen ved at udvikle et normativt perspektiv på teknologi som er baseret på vita activa. Herved demonstreres, hvordan dette perspektiv kan bruges til at analysere nutidige teknologier 65 år efter, at blev *vita activa* først blev udgivet.

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1 Introduction

The technological chasm between the world experienced by Hannah Arendt in the 1950s and today is immense. Ominously whizzing room-sized IBM computers, fully automated autonomous factories and Soviet satellites represented the-literally-looming technological threats that dominated the imagination and discourse of the period. Platform technologies are seemingly the opposite: they are ubiquitous yet exercise invisible control by acting as intermediaries to our social and professional lives, thereby channelling our activity in ways that lend themselves to monitoring and valorisation. From our omnipresent phones to our conversations with friends and how we learn about the world from news, platforms have become the defining fixture of our day and age. They also represent a paradigm shift in how paid (and unpaid) work is performed and leveraged, ranging from on-demand physical services, such as Uber, globalised remote access to cheap skilled labour, represented by Upwork, Fiverr or Amazon Mechanical Turk, to the monetisation and management of physical objects and communication infrastructure through the likes of Airbnb or Meta. By being simultaneously the where and how of interaction, platforms provide spaces for encounter and shape the way we face one another. Through platformisation, the technological threat has shifted from the outside world to within our pockets (Runciman, 2020a), invisibly structuring the way we work and engage with each other by relentlessly nudging us into being easier to exploit (e.g. Zuboff, 2019a). This raises the question of how platformisation affects our political capacity.

Both the academic literature and mainstream media are awash with theories of how platformisation will play out. Identifying and conceptualising platformisation as enabling new business models and introducing *surveillance* dynamics into work and communication is important, but it omits an aspect that has, to date, mostly been ignored: that, if platformisation transforms the fundamental experience of working and interacting, it is inextricably linked to our political freedom. In the course of this dissertation, I show how Arendt's political theory provides a missing perspective to address blind spots in our current understanding of platformisation. It contains the elements of an analytical framework that can be used to evaluate platformisation and other transformative technologies in terms of their public value, effectively 'looking under the hood' of this pervasive technological transformation. Her fundamental discovery—that the political capacity that protects us from devolving into totalitarian nightmares is rooted in the configuration of our daily activity—remains a stark warning despite the vastly different

technological landscape we encounter today. What Arendt achieves in her main philosophical text, *The Human Condition*, is to address the elusive question of how political freedom is constituted and maintained by drilling down into the most basic, tangible experiences of our existence—how we sustain ourselves and how we produce and value things.

1.1 Context and motivation

This dissertation is about the platformisation of labour and work and how it affects our capacity for political action. In the tradition of Locke, Hegel and Weber, Arendt recognised an elemental link between the conditions of *labour* and *work* and political freedom, expressed through *speech* and *action* (König, 1990). What I propose is to shift and turn Arendt's analytical apparatus, a method of 'distinction' used to pry apart the basic human activities of labour, work and action (Patchen, 2011), towards a contemporary issue that falls squarely within the focus of Information Systems (IS) research: platformisation, i.e. the proliferation of digital platforms into our work life and—by extension—our political life.

Arendt founds her critique of society, which in her view is marred by a loss of political freedom of the individual that gave rise to the horrors of totalitarianism, on a phenomenology of the human condition in her eponymous work. She attributes particular importance to a social analysis of the ways her contemporaries (and their ancestors) laboured and worked, identifying how shifts in the modes and spaces of production in an increasingly globalised and consumptiondriven world of work directly affected humanities' capacity for genuine political interaction. According to Arendt it is our "ability to think"-famously lacking in Eichmann, whose "thoughtlessness" defined him (Arendt, 1977/1981, p. 4, 1963/2006, p. xxiii)—and not the "ability to tell right from wrong" derivable from any morality or doctrine (Arendt, 1977/1981, p. 13), which prevents us from becoming sucked into the 'historical determinism' of totalitarianism (Arendt, 1951/2017, p. 608) by questioning authority, deliberating with others and mounting effective resistance in plurality. This ability to engage in dialogue with oneself and negotiate actions and share views with others in the world depends on our active life, i.e. the time we spend not contemplating. It was Kafka who first recognised how indifference to the world was bred in the bureaucratic workplaces of the 20th century (Arendt, 1944/1994; Bragg, 2020). Drawing on his insight, Arendt discovered that the context required for radical thoughtlessness of the Eichmann kind to arise depended on the way we organise our means of production in the 'jobholder' society. Today, we no longer live in an Arendtian jobholder society but are

transitioning, gradually, to a society characterised by digital platforms. What then are the implications of this new, technology-infused world of labour, work and action for our ability to be political and prevent the most dangerous forms of bureaucracy and routine from taking hold once again?

Academia has responded to the rise of platforms by producing a range of macro to micro level theories of how *platformisation* impacts our lives. As warnings are sounded about the rise of *Surveillance Capitalism* (Zuboff, 2019a) and *Cloud Empires* (Lehdonvirta, 2022), it becomes imperative to understand how the condition of labouring and working on digital platforms might afflict the fabric of our coexistence in order to appropriately govern the platform industry, institute regulatory safeguards and, ideally, leverage the potential of platformisation for political life. This dissertation contributes to scholarly discourse by analysing the lived experience of platformised human activity, i.e. *labouring, working* and *acting* on and through digital platforms, thereby exploring a central aspect of life in the 21st century.

Arendt's theory is often applied piecemeal and, according to my knowledge, there have been no comprehensive *Arendtian* analyses of platformisation to date that focus in-depth on all three pillars of the *vita activa* and map its implications for political life. To approach this complex issue, I engage with different manifestations of platformisation along an abductive research process composed of three empirical analyses and interpret the findings in light of Arendt's *vita activa*, which serves as an unorthodox but powerful analytical framework for understanding how shifts in the modes of human activity and their configuration brought about by platformisation impact political freedom.

1.2 Research objectives and outline

Today, we frequently labour, produce and (inter)act through and with platforms. They have become, to an extent, part of the fabric of the public realm as well as our private lives. The question about the human condition today must therefore also be a question about the human condition in a platformised world. When Arendt wrote *The Human Condition*, she did so nestled in the zeitgeist of the 1950s. Rather than the factory of the industrial revolution, the office and the scientific lab were the central spaces around which life was organised. Their rhythms firmly controlled the flow of quotidian life, which saw the 'workforce' swash from their homes to their workplaces and return at dusk to their family homes. The defining characteristic of this era is neatly summarised by Harvey, who claimed that beneath the surface of modern work remained

the unalterable truth that "labour-power has to go home every night" (Harvey, 1989 cited in Graham et al., 2017). Contemporary platform labour bears little resemblance to the strictly geographically and temporally bound working conditions of the 1950s. The first objective of this research is therefore to provide the reader with a reliable foundation of what platformisation is by taking a snapshot of the literature and identifying central clusters of ideas, starting with the emergence of *novel business models* and gradually widening into a perspective of *platform value chains* and the *valorisation of everyday behaviour* until arriving at a societal-level *transformative perspective* (Chapter 2).

Interest in Arendt's political theory, especially her seminal study on totalitarianism, resurges cyclically, when our political institutions seem threatened from within, e.g. the Trump presidency (Mason, 2019). Despite her writings being at times unsystematic and even contradicting, leading to frustration among her readership (Miller, 1995), Arendt has emerged as one of the 20th century's most influential political theorists and interest in her life and work is unbroken (Meyer, 2021). However, owing to her unorthodox method and journalistic background, her theorising frequently involves laying out how things are and how they ought to be, but only rarely the mechanisms by which they are caused (Mason, 2019). This makes setting up a diligent Arendtian analysis, beyond merely emulating her distinction between *labour* and *work*, which, when applied in isolation, would not be compelling, a challenging endeavour. The second objective of this dissertation is therefore to 'reconstruct' the Arendtian analytical apparatus and to separate it from the context of the 1950s, freeing it up to be applied to evaluate three empirical analyses of platformisation and possible future research on transformative technologies (Chapter 3).

Furnished with an understanding of how platformisation is viewed in the literature and an elaborated analytical framework, and having introduced the reader to otherwise ambiguous Arendtian terminology, I formulate two nested research questions, which ask (I) *how platformisation affects labour, work and action* and (II) *how platformisation can redeem political life*. To address them, I devise a research design based on abductive inquiry that takes into account my personal experience conducting three empirical analyses of platformisation: 1) social sequence analysis of platformised career paths in the gig economy, 2) topic modelling of gig workers' support communities and 3) qualitative content analysis of the discourse on open source intelligence and investigation (contracted to 'OSIN/T') community platforms. Abductive reasoning is increasingly recognised as a useful methodology and research strategy in the social

sciences. The fourth chapter thus fulfils the dual objective of introducing the reader to the abductive research process, its underlying epistemological assumptions and quality criteria as well as establishing a soundly reasoned research strategy for generating evidence to address the research questions.

From here, I take the reader on a path through the findings of the three analyses clustered into two groups: the first presenting evidence for the platformisation as a process detrimental to political life—'the platform as factory'—and the second showing how it can create the conditions for political life to flourish—'the platform as polis'. By synthesising the empirical insights with the Arendtian framework into the concept of the *duality of platformisation*, the fifth and sixth chapters address the main objective of this dissertation, which is to investigate the effect of platformisation and contribute an understanding of the link between the future of work on platforms and our political capacity back to scholarly discourse. I conclude this dissertation by recapping the contributions and offering an outlook about how the Arendtian model might inform future research (Chapter 7).

1.3 Limitations

This dissertation addresses a sprawling topic using an equally rich body of theory. Making these ends meet is challenging and, in consequence, I made compromises in terms of the methods, scope and theoretical depth of this research project.

First, Arendt's writing, plentiful and long canonised, as well as the vast and lively body of secondary literature around her ideas make establishing an authoritative Arendtian theory unfeasible. Instead, I present one possible reading of Arendt's central works and support my interpretation by choosing what I deem to be her central literary sources. Other paths through her writing exist and leave the theoretical assumptions of this dissertation open for constructive scholarly debate.

Second, I engage with the platformisation literature at a certain angle that requires contextualisation. While I am concerned with what platformisation means for our political capacity at a high level, i.e. does it allow for it or inhibit it, I notably do not look into how political engagement itself might actually take shape on platforms. For example, how communication flows between users are formed and influenced on social media platforms. I see both aspects as part of a larger, two-part argument about *the capacity for political action* and *political action as it is performed*. This research covers only the first, prerequisite part.

Third, the empirical aspect of this dissertation focuses on the modalities of platformised labour and work, which I analyse using observational methods. This has two reasons, the first being my aim to capture insights into the larger connection between platformisation and political life and avoid getting caught in a particular niche of the platform economy and the second having to do with the circumstances under which this dissertation was written, especially the global SARS-CoV-2 pandemic that made in-person qualitative research prohibitively difficult for most of the past three years.

Finally, abductive inquiry, such as this research adheres to, does not aim to establish an authoritative truth or conclusively prove or confirm a previously devised theory. Instead, it deals in 'hunches' that are iteratively refined and honed before, at the end of the cycle, when they are sufficiently convincing, they are released back into scholarly discourse as seeds for new theory. In this research I neither conclusively prove the predictive capabilities of any authoritative Arendtian theory, should that even exist, nor do I develop a novel theory of technology and politics that stands alone from this context. Instead, I provide a plausible 'best explanation' for a highly relevant contemporary phenomenon that plugs into existing research and, ideally, sends the starting impulses for further investigation of platformisation.

2 The platformisation of daily life

Digital platforms are everywhere. They have firmly and fundamentally inserted themselves into the lives, language and imaginations of humans. Their ubiquity and heterogeneity have fired up interest from a wide range of academic disciplines, leading to diverse and at times conflicting definitions and conceptual imprecision. The academic literature generally recognises that digital platforms cut across domains of life and affect individuals on multiple societal and personal planes as well as disrupting most established industries, such as transportation, accommodation and retail (Kenney et al., 2021). It tends to conceptualise platforms either as instantiations of data-driven business models in commerce, transportation, housing, delivery and other areas of life and business, or as abstract socioeconomic phenomena. Terms such as *platform* economy, digital capitalism and platform capitalism abound and compete to describe supposedly novel forms of capitalism enabled by digital platforms. This chapter outlines the key vantage points proposed in the literature from which platformisation can be understood as a series of transformations, increasing in intensity from the development of novel business models to the rise of statelike entities evincing proto-totalitarian qualities. In doing so, it facilitates a detailed empirical and theoretical analysis of the condition of platformisation by clustering the literature into four camps. This overview then serves as a working definition of platformisation and introduces the body of literature addressed by this dissertation.

Based on their review of selected literature from software studies, political economy, business studies and cultural studies, Poell et al. (2019, pp. 5–6) arrive at a definition of platformisation as "the penetration of infrastructures, economic processes and governmental frameworks" by digital platforms, and the "reorganisation of cultural practices and imaginations" around them. This definition serves as the point of departure for this literature review, where I focus especially on the literature that aims to characterise and describe this *process* of penetration of daily activity. It asks, *what are the key understandings of platformisation, the transition from a pre-platform to a platformised experience, in the academic literature*? This chapter acknowledges that any such processes depend on the transformative infrastructural qualities of digital platforms. However, the concrete design principles of platforms, such as their being *computational* and characterised by *reprogrammability* (e.g. Bogost & Montfort, 2009), or digital infrastructures (e.g. Plantin et al., 2018) lie outside the scope of this dissertation, which investigates cases of platformisation as broader transformative processes affecting the ways we work and interact, for example, by inverting the division of labour between humans and machines

and harnessing humans as resources for digital systems (Márton & Ekbia, 2021). The review of the platform literature¹ presented in this chapter reveals four different understandings of this fundamental shift in working conditions.

I demonstrate over the course of the chapter that platformisation has both an *overt* dimension (where its transactional qualities are recognisable as such), manifested in the so-called 'gig economy', and a *covert* dimension (where its transactional qualities remain hidden to the users), which is described in emerging literature that examines how platforms shape human interaction. Knowledge of these transformations has society-wide practical significance, including for individual workers, policymakers, academia and companies, who are all affected to varying degrees by changes to the ways we work and interact. Understandably, given such major implications, questions of how digital platforms affect everyday life rank highly in research agendas (e.g. Ashford et al., 2018; de Reuver et al., 2018). To address them effectively in this dissertation, I first clearly outline the central clusters in the literature and their core concerns. My aim is to guide the reader on *a* path (others exist) through the platform literature² of the last decade to conjure up a shared understanding of *platformisation* and the debates surrounding it, from which to depart into the theoretical and empirical sections of this dissertation.

¹ To delimit a rough time-span for the initial literature research, I fed the terms "platformisation", "platform economy", "digital capitalism" and "gig economy" into Google's n-Gram Viewer, an online tool for determining term usage throughout Google Books' extensive literature database. For each term, a clear and intensive uptake in usage is discernible around the year 2012, which formed the initial lower bound for my literature search. This explosive reception of topics related to *platformisation* implies two things: first, that a systematic comprehensive analysis of all available literature is not feasible in the context of a PhD dissertation, and second, that the ideas and terms connected with the phenomenon are an important part of contemporary discourse. To assemble a database of the relevant literature, I began by *snowballing* outwards from the reference lists of read articles. The collection of articles was iteratively refined and added to as I found new relevant literature and through discussions with peers knowledgeable on the subject. Additionally, I set up regular search alerts with the academic literature databases Google Scholar and Scopus to keep up to date with potentially relevant new publications. A further source for current literature on *digital publics* was a curated reading list published by the Weizenbaum Institute for the Networked Society in Berlin, Germany (The most recent version of the compiled reading list "Literaturradar" is available under: https://web.archive.org/web/20230219102648/https://digidem.weizenbaum-institut.de/literaturradar/; accessed on 19.02.23).

² The nature of platforms is that they cut across different domains of life, and their ubiquity and proliferation mean they are actively studied in a wide range of academic disciplines. As a result, I consider focusing on the literature of one field insufficient to understand the condition of platformisation. Instead, I attempt to integrate the literature from a range of social sciences, including economic sociology, communication science, IS, organisation studies and political theory, with the journals and publications in the economic sociology domain taking slight precedence since they served as the initial starting points for the cascading literature search. What qualified articles for inclusion was their attempting to describe the fundamental changes to an aspect of daily life brought about by platformisation. I am less concerned with the technical aspect of designing, operating and evaluating the success of digital platforms from a computer science or business perspective and only occasionally reference such literature where necessary to illustrate certain points.

The platformisation literature is broad and multifaceted. It can be arranged into a coherent narrative of transformation from the development of new, technology-enabled business models via a value chain perspective and the covert exploitation of behaviour to the introduction of hegemonic and proto-totalitarian qualities. As this narrative progresses, platformisation is increasingly portrayed as a technological threat. Despite this, it is generally framed as an economic phenomenon, i.e. affecting individuals' livelihoods and driven by a profit motive. Its political implications, which link transformations of the way we work to the horrors of totalitarianism, are alluded to but left unexplored.

2.1 Defining platformisation

This section unpacks the core ideas and terminology surrounding *platformisation*, i.e. the progression from a pre-platform environment towards a platform economy, etc. Names are plentiful for the constitutive elements and dimensions of what is often referred to as the 'platform' economy' as a catch-all term for activities conducted through platform technology, and what characterises them generally is their diversity and inconsistency of usage (Howcroft & Bergvall-Kåreborn, 2019). Scholars and practitioners from various disciplines recognised the novel character of the economic and societal transformation unfolding over the last decade³ and lacking a unified vocabulary for a conceptually unprecedented phenomenon-proceeded to coin terms such as 'digital capitalism', 'gig economy', 'platform economy' 'sharing economy', 'crowdwork', 'cloudwork' and many others to describe their findings and theories. This resulted in competing theorisations and imageries in the academic literature, making it hard to grasp what 'platformisation' meant in practice for workers and regulators alike (Liang et al., 2022; Miconi, 2022; Vallas & Schor, 2020). As the usage of platformisation terminology increases and encompasses ever more concepts, it runs the risk of becoming a meaningless signifier, too large and inclusive to be of any analytical value (Miconi, 2022; Steinberg, 2022). Therefore, it is necessary to unpack the platformisation terminology to ensure empirical research engages with the appropriate section in the academic literature.

Over the following passages I show that despite stemming from diverse academic fields, key ideas from the literature are nested within one another. *Platformisation*, as the concept is

³ Taking a historical perspective, Steinberg (2022) roots the precursor of the platform concept in the modular manufacturing of cars as early as the beginning of the 20th century.

further developed by each group, describes an increasingly radical societal transformation. Starting with the literature on novel platformised business models, I trace a path through the literature intended to highlight the transformational claims typical of four camps.

2.1.1 Platformisation as the digital transformation of business

One prominent line of the platform literature views platformisation primarily as the emergence of novel technology-driven business models. According to this view, the platform economy can be seen as the outcome of two developments (Howcroft & Bergvall-Kåreborn, 2019):

- 1) the invention of modular technological architectures, structured around a stable core and a variable periphery, necessary for exponential scaling (Gawer, 2014) and
- 2) the emergence of *crowdsourcing*, the distributed peer-production model behind the *sharing economy* (Howe, 2006).

Technological advances opened a window of opportunity for companies to leverage the global internet infrastructure to distribute and scale their offerings at low cost. *Network effects* (see McIntyre & Srinivasan, 2017) and the invitation for third parties to contribute creations and content interacted, enabling exponential growth (Gawer, 2014).

Two basic configurations of platform economy business models emerged from this combination, *innovation platforms* and *transaction platforms* (Cusumano et al., 2020). The first type, such as Apple's AppStore, typically sell or rent a software or hardware product (the iPhone hardware and iOS operating system) that third-parties can build on or connect to (e.g. Bonina & Eaton, 2020). The latter type provide novel ways of facilitating business enabled by the internet. For example, *crowdsourcing*, i.e. the process of sourcing digital or physical content or activities from a distributed global workforce (Howe, 2006), began to be recognised as a fundamental shift in the way of doing business in the *sharing economy*—originally a benign set of ideas to leverage the affordances of the internet, which was on the rise in early 2000s. The emerging new business model had three central characteristics: 1) *intermediation*, i.e. the linking of two or more parties by another; 2) the facilitation of *peer-to-peer* markets between the parties and 3) the reduction of transaction costs compared to previous business models (V. Katz, 2015). By developing a new business model, technology companies were able to effectively harness the opportunities

presenting themselves as the global internet unfolded and became reliable for high-bandwidth transfer⁴.

An understanding of platforms in this way, where diverse groups of or individual actors arrange themselves around and interact with each other through a central digital application, e.g. a gaming platform that allows for complementary content to be produced and traded, has further been conceptualised as 'hub-and-spokes' platform-ecosystems or multisided-markets (Cennamo & Santalo, 2013; Jacobides et al., 2018). Proponents tend to view *platformisation* through the lens of technological advancement and assume competition between platform providers vying for market dominance. An implication of this understanding of platforms as business models is that the *provider* and the *service* are separate, with the former cultivating one or more of the latter. For example, as a provider, Apple offers numerous innovation-type 'platforms', including their proprietary hardware, an app store and music streaming service (Khan, 2019), which are interlinked to connect and serve different user bases. Other providers, such as Amazon, also include transaction-type platforms in their portfolios (e.g. Amazon and its Mechanical Turk service). *Platformisation* in this understanding is therefore a process of digital transformation of anything ranging from a certain line of business to the entire enterprise. Despite drawing as many (groups of) users as possible into its orbit, the process remains confined to the organisation promoting it.

Taking a critical stance towards this development, some argue that the value-laden *sharing* ideals that kickstarted the development of contemporary platform providers (Scholz, 2017), when applied to certain fields, such as ridesharing or online freelancing, undermine workers' rights and pave the way for further exploitation of labour under the banner of flexibility, community and technological disruption (Ravenelle, 2019). This interpretation sees the 'sharing economy' morphing into the less positively connotated '*gig economy*', which encompasses numerous *non-standard* work activities ranging from transportation to image tagging (Ravenelle, 2019; Scholz, 2017).

⁴ The transformative moment of connection to the internet has been called into doubt and described as the reification of existing business process outsourcing (BPO) structures with their associated power dynamics (Graham & Mann, 2013).

2.1.2 Platformisation as the rise of a global platform economy

It is precisely the differentiation between a technology-enabled 'service' and a 'provider' that another line of thought in the literature rejects, claiming instead that platformisation is transformative beyond the confines of individual organisations. This view, influenced by ideas from political economy, seeks to characterise platforms as the final appendix of an array of hidden exploitations, ranging from content moderation activity for social media platforms to child labour in cobalt mines providing the necessary hardware to operate the required computing clusters to serve us content (Dyer-Witheford, 2015; Fuchs, 2014). Platformisation then is the process of gradually shifting towards a *platform economy*, where digital platforms reorganise work along the stages of various value chains central to our daily lives. It is not the technology as such that lends the platform economy its defining quality, but the particular globalised arrangement of production and consumption facilitated by it. The novelty of the platform economy in this conception lies in the extraction of precarious labour from a largely invisible global workforce not only to obtain physical resources but to power the algorithms and AI-technology that drive our global media, entertainment and communication apparatus (Altenried, 2020; Gray & Suri, 2019).

According to this view, the experiences we have on consumer-facing digital platforms, such as social media, often depend on invisible precarious labour. One example of this is the gruelling content-moderation work of thousands to keep the experience on platforms 'hygienic' at the expense of workers' psychological safety⁵. Workers, predominantly from the Global South, are invisibly employed to craft an image of the platform as automated, clean and perpetually scalable (Lanchester, 2012). These *microworkers*, taking part in a particularly repetitive and menial form of remote platformised labour, have also been known to co-produce algorithms powering day-to-day appliances such as feature detection and increasingly, cars (Tubaro et al., 2020; Tubaro & Casilli, 2019) or large-language models, such as ChatGPT⁶. This view therefore sees a direct (though hidden to the user) link between the experiences we have on platforms and global labour. Instead of liberating economies in the Global South by connecting them to global digital labour markets—a claim often repeated in connection with the global gig economy—this

⁵ See for example details of the recent lawsuit brought against platform-provider Meta in Kenya: https://web.archive.org/web/20230302214406/https://www.theguardian.com/global-development/2023/feb/07/lawsuit-meta-kenya-nairobi-court-rules-facebook-ptsd (accessed on 02.03.2023).

⁶ For an example of this argument see: http://web.archive.org/save/https://www.businessinsider.com/chatgpt-ai-will-not-take-jobs-create-future-work-opportunities-2023-2?r=US&IR=T (accessed on 06.03.2023).

manifestation of platformisation represents the reified exploitation of previously structurally deprived geographies along the existing dynamics of outsourcing and resource exploitation (Graham, 2014). It also exemplifies how platforms function as the connective tissue between workforces and consumer bases globally, e.g. as they aggregate *micro*workers to sanitise content for a global social media platform, which in turn assembles a vast number of users. A common feature of these arrangements is the platform provider, usually a large corporation operating under a profit maxim. As large platform companies, usually located in the Global North, exploit vulnerable workforces, usually in the Global South, to operate our daily platformised lives, this view suggests we are witnessing merely the continuation of a well-known economic struggle with platforms attached at either end of it (e.g. Anwar & Graham, 2020a).

2.1.3 Platformisation as covert exploitation

A third camp in the literature suggests that the focus of previous literature on globally distributed labour is misplaced. It argues instead that the novelty of platformisation lies in the exploitation of things which are not overtly recognisable as labour, such as digital trace data generated by analysing usage patterns. Instead, the platform economy is representative of a genuinely new form of *digital capitalism* (Srnicek, 2017). These proponents of a radical shift in capitalistic logic recognise the developments brought about through technological advancement and novel business models, as well as the global value chain powering our AI-augmented lives, e.g. by training the algorithms that filter our social media feeds or recognise hazards ahead of our vehicles. Additionally, they posit that the nature of labour and work itself—what constitutes it, where it is performed and by whom—has changed.

One attempt to typify digital work introduces a consequential distinction between paid or compensated and unpaid or data-based forms of labour (Schmidt, 2013). The first—*overt*—kind equates roughly to the gig economy style labour identified above (Scholz, 2017). The second *covert*—type of digital labour exploits users' activity on platforms, such as the creation and consumption of content. Users themselves become *instruments of labour* by being duped into unwittingly engaging in "*play-bour*" (Fuchs & Sevignani, 2013) or "free labour" within the distributed, virtual "social factory" (Terranova, 2004). This gradual dissolution of the physical locus of production, whether factory, workshop or office, has previously been conceptualised as the rise of the "factory-society", heaving it "permeated through and through with the regime of the factory" (Hardt & Negri, 1994, p. 8). Platforms exemplify this fuzzy distinction between productive and unproductive activity particularly well. However, it has also been argued that individuals use digital services on their own volition and are aware of their being monitored, trading off privacy to facilitate emotionally satisfying communication (e.g. Turkle, 2008).

What combines these views regardless of users' awareness of being exploited is the idea of *data-as-a-resource*, which links platforms (and their business models) directly to digital capitalism. The central dynamic of platformisation in this view, *intermediation*, describes the insertion of platforms between groups to monitor, extract and control relations (Srnicek, 2017). Platforms simultaneously contribute to the production process and exercise indirect control over users' digital labour (and the accruing surplus-value) by channelling their communication into ways that are exploitable through "protocological control", i.e. a form of interaction deliberately limited and bounded to improve the production of valuable data (Beverungen et al., 2015, p. 485). As a result of this unwitting herding of users' behaviour, privacy infringement and constant expansion become the defining characteristics of the platform economy—the more users are onboarded and retained to engage in their stunted exploitable communication, the higher the resulting profits. As a result, the logic of digital capitalism encourages greedy and limitless user growth and is prone to unsafe runaway dynamics through 'blitzscaling' (Ens & Márton, 2021; Márton, 2022).

An alternative term used to describe the relationship between users organised around a technology and the corporate entity profiting from their usage is *valorisation*, which refers specifically to the capture of human activity (outside working hours) through platforms (Fumagalli et al., 2018). <u>Ekbia & Nardi (2017</u>) propose a formalised version of this theoretical approach called 'heteromation', which claims that humans are in the midst of being incorporated as user-resources into a platform-dominated mode of production, regardless of their performing actual labour or seemingly private tasks. According to this perception, we must reject the myth of the successful ideal platform and consider the sociotechnical entanglements of platform technology and (covertly) heteromated labour at the heart of digital capitalism. What connects the aforementioned views is the central notion of a gradual dissolution of the boundaries separating work and private life through platformisation. This represents a qualitative difference compared to the 'value chain' perspective, which sees an intensification of established routines of exploitation.

As we progress through the literature, the notion of *platformisation* shifts from the 'onboarding' of business models with new technological base that comes with unique affordances and constraints, towards a fundamental reconfiguration of our daily lives that involves repealing taken-for-granted categorical distinctions, such as that between work and leisure. A fourth camp in the literature expands further on this notion, identifying far-reaching consequences of platformisation beyond work and leisure to the basis of our experiences.

2.1.4 Platformisation as a new economic paradigm

A final camp in the literature again steps up the focus onto the global level, above the notion that individual platform providers capture different aspects of working or private life, towards the idea of a general pervasive platformisation logic that affects all of our experience and not merely types of work or communication via social media, etc. Platforms have been associated early on with imperialist tendencies emanating primarily from the United States, where a majority of platform companies are situated, and, increasingly, Russia and China (e.g. Jin, 2013). Proponents of this understanding argue that new technological affordances unleash and simultaneously obscure the 'neoliberal' ideology at the core of platformisation that expands unhindered along existing imperialist grooves (Liang et al., 2022). Accordingly, through platformisation "all dimensions of human life are cast in terms of market rationality" (Brown, 2003, p. 40).

However, as platforms become increasingly ubiquitous, some authors have interjected that the underlying dynamics are no longer simply 'business as usual'. *Surveillance capitalism*, recently advanced by Zuboff (2013, 2015, 2019a, 2019b), identifies a "new global architecture [...] modifying and commoditizing behavior for profit" (Zuboff, 2015, p. 85). This new conception of capitalism does not exploit resources and labour but behavioural data, coined *behavioural surplus*. It was initially proposed in 2013, roughly coinciding with the founding of Cambridge Analytica, the scandal-ridden data analysis agency and privacy fraudsters (Zuboff, 2013). According to Zuboff (2019a), technology firms accrue power by "accumulation [through covert] dispossession" (Harvey, 2017). Essentially, we labour while we work and also while we do not, during our communication and consumption, since our behaviour and participation is constantly monitored and converted into value (see Barber, 1998; Zuboff, 2015). This dynamic does not merely cover work, or, as per the proponents of the previous view, our leisure time, but strives to encompass the sum total of human activity. To maximise profits, we are increasingly

coaxed into adjusting our behaviour to the patterns most profitable to the platform companies (Zuboff, 2019a), e.g. by being 'herded' towards certain consumption choices by an augmented reality game or by sharing contentious viral content with our personal networks.

Surveillance capitalism theory⁷ synthesises the notions of platform business models (or multisided markets) and digital capitalism (Márton & Ekbia, 2021): the mechanisms of data-exploitation are more adapted to the connected world than those of conventional capitalism and in a viral fashion they infect the logic of doing business, ultimately leading to surveillance capitalism becoming the dominant economic order. This argument represents a shift in gears from the data-as-a-resource logic of *digital capitalism* to a deeper behaviour-as-a-resource approach, no longer covering just the emissions of platform usage but lived experience itself. Platform companies, to maximise their profits, have a clear incentive to structure our lives towards total behavioural exploitation, prompting comparisons to totalitarianism in terms of the scale of such an endeavour (Zuboff, 2019b, p. 20).

A critique of this argument is presented by Morozov (2019), who claims that Zuboff and various other authors arguing along the same line that capitalism is fundamentally transformed by the emergence of big data (e.g. Mayer-Schönberger & Ramge, 2017) fail to adequately theorise the capitalism that is supposedly being usurped by the *surveillance* kind, instead relying on a mystified fiction of capitalism as essentially "what capitalists do" (Morozov, 2019, p. 39) rather than a systematic analysis. As information inferred from data about our online behaviours and preferences floods the market and crowds out prices as market signals (Mayer-Schönberger & Ramge, 2017), and platform companies structure our behaviour to make it more profitable (Zuboff, 2019b), the same logic of accumulation in the hands of big companies applies as in regular capitalism. Accordingly, a shift from money to (behavioural) data (worth money) alone does not warrant the transformational claims frequently touted in the literature (Morozov, 2019).

Recently, another theory of the transformational impact of platformisation has emerged. The notion of the *statelikeness* of digital platforms is developed by Lehdonvirta (2022), who argues that platform businesses are increasingly emerging as digital gatekeepers of their respective virtual fiefdoms. Platform companies of the 'innovation' and 'transaction' kinds have both progressed into uncharted waters by assuming prerogatives within their respective domains

⁷ An early version of this argument can be found in Barber's (1998, p. 587) musings on the impact of networked technology on democracy.

of operation usually reserved for states. For instance, online labour markets (OLMs), such as Upwork, set and enforce (within their platform 'jurisdictions') a global minimum wage and levy tax-like fees (Lehdonvirta, 2022, p. 86). What has enabled these conditions to arise is, on the one hand, the absence of effective national and international regulation for the virtual domains the platforms operate in and the concentration of market power in the hands of a few key players. Further, the exceptional ability of large modern corporations to perform economic planning has also been suggested as an example of *statelike* tendencies in the corporate sphere (e.g. Phillips & Rozworski, 2019). The result, some argue, is a lurch towards a new 'digital feudalism'⁸, where we are destined to serve our new platform-providing overlords.

What the views presented in this section have in common is that they understand platforms primarily in institutional terms, i.e. how platforms structure and govern our daily business, proposing that *platformisation* brings about a fundamental reshuffle of our societal setup. However, even in this cluster of the literature, we are reminded that platformisation is commonly regarded as an economic phenomenon and framed in institutional terms, despite claims of digital, surveillance, etc. capitalism being fundamentally different from the conventional type (Morozov, 2019). In other words, our daily lives are restructured and governed by platformisation to serve the profit motives of unscrupulous 'puppet masters' (Zuboff, 2019b, p. 11).

2.1.5 Overview of the definitions

To summarise, the academic literature can be separated into four different groups, who see *platformisation* as:

- The emergence of new business models centred around *sharing* ideals and enabled by technological advances (Fitzmaurice et al., 2020; Gawer, 2014; Howe, 2006; Jacobides et al., 2018; V. Katz, 2015);
- 2.) a centring of business around global service and technology value chains fuelled by invisible precarious labour (Altenried, 2020; Dyer-Witheford, 2015; Fuchs,

⁸ For an example of this argument see this 2019 article by Mazzucato:

https://web.archive.org/web/20230304222847/https://www.project-syndicate.org/commentary/platform-economy-digital-feudalism-by-mariana-mazzucato-2019-10 (accessed on 04.03.2023).

2014; Gray & Suri, 2019; Ravenelle, 2019; Scholz, 2017; Tubaro et al., 2020; Tubaro & Casilli, 2019);

- a new fundamentally digital and covert exploitation of value from individuals' private activities, dubbed *digital capitalism* (Beverungen et al., 2015; Ekbia & Nardi, 2017; Fuchs & Sevignani, 2013; Fumagalli et al., 2018; Schmidt, 2013); and
- a new economic paradigm, where private companies achieve *statelike* hegemonic status through a logic of intermediation and total surveillance (Jin, 2013; Lehdonvirta, 2022; Zuboff, 2013, 2015, 2019a, 2019b).

An overview of the varying definitions of the core concept *digital platform* at the centre of each group 1.)–4.) is provided in Figure 1. What all four camps agree on is that *intermediation* (Wood et al., 2019b) of conventional market arrangements and their subsequent reconfiguration into the platform economy is a basic principle of platformisation. Further, a dominant role played by *algorithms*, understood as sociotechnical complexes rather than mere computational procedures, is also acknowledged broadly in the platform literature (Bucher, 2018; Burrell, 2016; Kellogg et al., 2020; Mittelstadt et al., 2016; Newlands, 2021). Generally, platformisation is received in the academic literature as a pressing and genuinely novel issue of both practical and scholarly significance. The broad attention platformisation receives from policymaking bodies, media and international organisations further accentuates its societal importance⁹. Therefore, this dissertation contributes to a timely and ongoing debate in the academic literature that has real-life implications beyond academia.

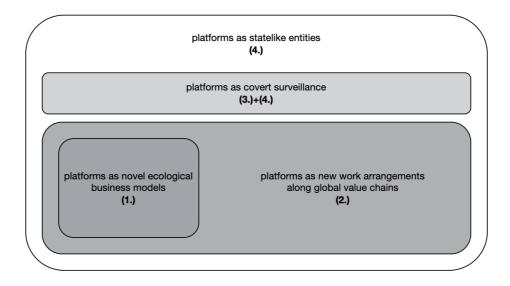
What emerges from the clustering of the literature into four complementary camps is the nested nature of the platformisation literature. Different qualities of platformisation become apparent only when viewed at the appropriate levels and depending on the context. This added granularity clarifies which aspects of platformisation and which research community is addressed. For example, the language of 'transaction platforms' and 'multisided markets', from cluster 1.), might be useful to describe certain practices common to the 'gig economy', whereas concepts

⁹ For an example of mainstream media attention see The Economist (2019); for coverage by international organisations see, for example, Berg (2018) or Urzì Brancati, et al. (2020).

from cluster 4.), such as 'surveillance capitalism', would be appropriate to describe the consequences of the emergence of and a general shift towards the gig economy itself. For the purpose of this dissertation, I draw on this clustering to clarify at which level I am engaging with the platformisation literature.

Figure 1

Varying understandings of digital platforms



Differentiating between *overt* and *covert* platformisation (the *platform* itself remains visible in both scenarios, but the value generation shifts in plane from obvious to hidden) is useful to further compartmentalise the literature. In the following sections, I first outline central ideas from the literature on the *overt* platform or *gig* economy, which falls into the camp subscribing to groups 1.) and 2.). Since the empirical research presented in this dissertation covers the gig economy, it is necessary to establish a fundamental understanding of this salient area of platformisation. I then proceed to provide an overview of the effects of *covert* platformisation on our daily lives from a range of literature adhering to definitions 1.)–3.), setting the stage for the part of the empirical analysis not concerned with *overt* digital labour. Finally, I engage with the emerging view that platforms exhibit *totalitarian* qualities proposed by the literature in camp 4.). I conclude by making the case that despite the 'paradigm shift' rhetoric, much of the literature focuses heavily on the economic implications of digital platforms, failing to adequately lay out the dynamics of how the proposed radical alteration of the human experience is supposedly coming about. In response, I present a novel alternative approach to studying platformisation that

focuses on its implications for 'political life'—the configuration of labour, work and action enabling politics.

2.2 The overt gig economy

In this section, I outline facets of the overt gig economy that are relevant to the empirical sections of this dissertation concerned with the platformisation of our working lives and introduce key distinctions between different types of gig work, which is generally understood as a new technology-enabled form of organising work, corresponding to view 1.) with far-ranging implications for the experience of how work is performed, corresponding to view 2.). The reviewed literature indicates that platform-facilitated gig economy work has become an increasingly relevant labour market fixture over the past decade as part of an overall platformisation of daily life (Schmidt, 2017; World Bank, 2019). Yet reliable statistics on its size and growth remain scarce (Berg, 2018), owed in part to conceptual imprecision and secrecy on the part of the platform providers. Overall, there exists broad agreement in the academic literature that the platformisation of work represents a 'future of work' among others (Vallas & Schor, 2020). This global gig economy can be understood from the workers' perspective as a new and rapidly growing form of self-employment (or pseudo-self-employment) that is either *local* (e.g. transportation) or *remote* (e.g. graphic design or content creation) (Pesole et al., 2018; Wood & Lehdonvirta, 2021). It originated in the early 21st century when the ideals of the "sharing economy" were jumpstarted by technological progress and injections of venture capital (Fitzmaurice et al., 2020; Howe, 2006; Ravenelle, 2017) and can be considered overt in the sense that the practices of workers using platforms to find and conduct work are recognisable as such. This implies that workers are aware of their performing a gainful activity, but not necessarily that their labour is visible or recognisable at all levels, a case argued for by the literature in cluster 2.). An example of invisible but *overt* platform labour is the remote work of training AI algorithms that power ordinary and industrial appliances through services such as Amazon Mechanical Turk (AMT) or other *microwork* platforms (Stephens, 2022; Tubaro & Casilli, 2019).

The gig economy is frequently presented as a novel arrangement, where the market usurped the organisation as the primary structure of work relationships and dis- then reintermediated the worker-employer relationship (Munoz et al., 2022; Wood et al., 2019b). The digital platform serves as a low-profile matchmaker that algorithmically assigns workers to interested clients and manages peripheral activities, such as payments and quality control (Irani, 2015). The obvious advantage of re-ordered online labour markets (OLMs) touted by platform companies is that of efficiency gains through tighter integration. These could, as is argued by proponents of the gig economy, in turn lead to more flexibility (Schmidt, 2017) and liberation from geographic factors (cf. Graham et al., 2017; Rani & Furrer, 2021) or social class (Martindale & Lehdonvirta, 2021). Where flexibility and independence from regulation, language and physical location are desired, such as when enabling migrants to work (Newlands, 2022b), the gig economy holds the most promise. However, real-life experiences hint at a highly asymmetric distribution of information between workers and clients with platforms retaining a panopticonlike omniscient market-maker position (Horton, 2010), which leads to the concentration of market power with already successful individuals also known as the 'Matthew' effect. In other words, the more work someone attracts, the lower the threshold of finding further high-quality work (Fabo et al., 2017; Malik et al., 2021; Pallais, 2014). Platform providers, in the absence of institutions governing the online work process, fill the regulatory void with statelike organs of their own, e.g. by setting minimum wages or levying tax-like fees (Lehdonvirta, 2022), leading to entirely novel, platform-native business models as per view 1.). Commodification has also been used to theorise gig economy labour (e.g. Wood et al., 2019b), which, despite being tied to individual's social necessities, is treated as a fictitious commodity (i.e. not actual products) for trading on a market. This subjects workers directly to market pressures, stripping their livelihoods of security and stability, a view corresponding to 2.). The literature associates the risk of precarity with both physical, local platform work (López-Martínez et al., 2021) and its remote counterpart (Gerber, 2022).

A central issue of the gig economy literature concerned with the platformisation of *overt* work activities is the lack of consistent terminology and reliable metrics. Individual studies reveal numerous risks and potential advantages connected to the platformisation of work, but the scale of the impact is hard to gauge without reliable terminology and foundational statistics. Over the following sections, to lay the foundation for the empirical section of this dissertation, I introduce some of the dominant distinctions made between different types of platform labour and present an overview of the available estimates on the size and distribution of the gig economy and where it is headed. In doing so, I demonstrate how gig work already represents a *fact of life* for millions of individuals globally and should be considered a *reality* rather than a *future* of work.

2.2.1 Taxonomy of the gig economy

Developing typologies of the gig economy (the overt platform economy) has proven problematic, as authors usually approach the field from their own vantage points and render discipline-specific categorisations (Howcroft & Bergvall-Kåreborn, 2019). One differentiation that is repeatedly echoed in the literature is between *remote* and *local* forms of the gig economy, where *local* forms are those performed physically, such as driving a client to a destination, providing access to a physical location or performing a manual task, and *remote* forms are those performed at a distance, independent of physical location, where the allocation of the task and the delivery of the product take place online, such as complex online freelancing (e.g. graphic design, coding, etc.) or menial microworking tasks (Wood & Lehdonvirta, 2021). An extension of this basic distinction further introduces financial remuneration as a criterion for separating various platformised labour and work activities (Margaryan & Hofmeister, 2021). Rather than focusing on the nature of the work process or its modalities, workers' motivations to undertake gig activities have also been proposed as useful approaches to categorisation. One such typology identifies distinct types of gig workers depending on their motivations to work through digital platforms, ranging from individuals in precarious financial situations who are underemployed and depend heavily on their gig work, through long-time gig workers, who build careers on platforms, to those who only sporadically fall back on platformised work (Dunn, 2020).

The literature clearly demonstrates that the *global gig economy* is made up of a wide range of diverse work activities that can be separated along the nature of the performed work as well as workers' experiences and perceptions. Adopting a basic distinction between *remote* and *local* kinds is useful for further understanding *gig work* as a variegated 'future of work' in the course of this dissertation.

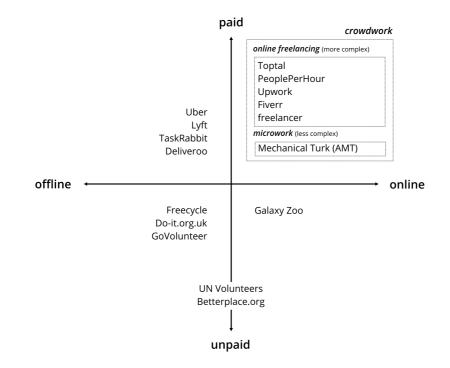
2.2.2 The 'future of work' in the gig economy

A central theme in the academic literature on gig work is that it has substantial implications for the *future of work* (Vallas & Schor, 2020), despite current numbers of gig workers still being relatively low compared to conventional forms of employment (Wood et al., 2019a). An optimistic line of the literature, focusing mainly on the *remote* gig economy, emphasises the *global accessibility* that the platformisation of work affords. Gone are the days when "labourpower has to go home every night" (Harvey, 1989, cited in Graham et al., 2017); *remote* digital labour platforms have effectively rescinded the necessity of a workplace to be bound in space. The connection of clients from around the world with workers in economically deprived geographies (and the subsequent exchange of work which requires only a laptop and skills to perform against hard currency with a potentially exponentially higher buying power in the workers' physical location) conjures powerful imagery of cheap labour as an effective form of development aid (Baldwin & Forslid, 2020; Kuek et al., 2015; The Economist, 2019) and presents gig work as a form of 'panacea' (Schriner & Oerther, 2014). Interpreted in this light, the rise of platforms has redefined the roles and dynamics of workers and their clients by lowering the barriers for individuals to function as 'micro-providers' of services and facilitating the flow of quality and price signals (Lehdonvirta et al., 2019).

Within the *remote* gig economy fall various types of work practices that can be differentiated based on their complexity and form of organisation. Online freelancing is among the many terms that have been conjured up to describe a particular form of remote and remunerated activity on digital platforms (crowdwork) set in contrast to microwork-the often referenced 'cog-in-the-machine' type of platform labour emblemised by the Mechanical Turk (Howcroft & Bergvall-Kåreborn, 2019)¹⁰, an 18th century chess playing automaton and eponymous digital labour platform operated by platform giant Amazon. Online freelancing promises a more talent-driven, complex and skills-centric form of platform work facilitated through an efficient technology-driven marketplace that optimally matches talented individuals and discerning clients (Margaryan, 2019). Compared to other forms of remote online work, it is higher paid, requires more decision-making, and exhibits more complex task design (Cedefop, 2021). An overview of the niche occupied by online freelancing (and crowdwork more generally) within the larger gig economy terminology is provided in Figure 2. Remote and complex gig work (online freelancing) is thus a particularly salient aspect of platformisation for empirical investigation, since it is a genuinely novel 'space-less' business arrangement, see 1.), with implications for global labour, see 2.).

¹⁰ I refer to *crowdworkers*, *online freelancers* and *platform workers* interchangeably in the course of this dissertation to describe individuals engaged in remunerated remote online platform work.

Figure 2



Types of crowdwork adapted from Margaryan & Hofmeister (2021)

What distinguishes online freelancing (and crowdwork in general) from other forms of paid work is the inclusion of an intermediary digital platform that manages the reputation of registered workers, the allocation of tasks, quality measurement, and payment for work performed (Degryse, 2016; Irani, 2015). Acting as self-declared marketplaces, the corporate entities operating the platforms refuse the label of employer (Degryse, 2016), despite possessing what equates to full control over the 'hiring' and 'firing' of individual workers. Platform providers argue that their global market making allows workers to select tasks of their choosing and perform them according to their preferences, effectively decoupling the work process from the immediate geographical modalities the worker is embedded in¹¹. This rhetoric of *autonomy* and *flexibility*—entering a virtual global market where skills can be exchanged for appropriate remuneration—is one of the key factors driving the uptake of remote platform work (Mandl, 2019; Wang et al., 2020).

¹¹ Upwork, one of the platforms studied in this dissertation, describes itself as "The World's Work Marketplace" (www.upwork.com, accessed on 25.10.2022). Fiverr, the other platform under analysis, refers to itself as a "Freelance Services Marketplace" (www.fiverr.com, accessed on 25.10.2022).

Local digital labour platforms, such as Uber or Deliveroo, have also had a disruptive impact on labour markets. For instance, the low entry barriers of gig work attract migrant labourers seeking market access and earnings, though precarious working conditions (Abkhezr & McMahon, 2022; Lata et al., 2022) and low recognition of gig work in terms of skills and reputation transferability (Newlands, 2022a) are among a range of problematic factors increasingly associated with the gig economy. The simultaneous degradation of working conditions and ease of access provided by platforms place many would-be gig workers, especially those who face difficulties accessing the conventional labour market, such as migrants, in a double bind (van Doorn et al., 2022), forcing them into precarious working situations due to a lack of alternatives.

Over the previous sections, I introduced a key distinction between types of *overt* gig work based on its locality (local / remote). The remote kind has been further usefully subdivided based on the complexity of the performed work. Much of the speculative literature (invoking terminology such as 'the future of work') revolves around this type of remote complex gig work, suggesting there is a particular salience to '*crowdwork*' that makes it worth investigating. An issue affecting the literature on both the local and remote kinds of gig work is that little is known about the true scale of this emergent form of work, making any generalisable inferences hard to achieve. In the following section, I review available metrics on the global gig economy to underpin the inquiry presented in this dissertation.

2.2.3 Measuring the global gig economy

To understand the societal dynamics of labour facilitated and performed through digital platforms, some basic information on the phenomenon is required. However, establishing the composition of the gig economy and even merely gauging its size have turned out to be complex (Berg, 2018; Munoz et al., 2022), a difficulty accreditable in part to platform companies withholding their usage statistics to retain competitive advantage. Much of this imprecision is attributable to a lack of reliable and valid measures about the size and development of the gig economy (O'Farrell & Montagnier, 2020). Even official statistics derived from labour-force surveys have (until recently) rarely been able to track gig platform usage (The Economist, 2018). As a result, many academic articles are informed by reports produced by government institutions or international organisations that tend to draw on small and dispersed convenience samples (Lehdonvirta et al., 2021). In combination with a general methodological paucity in gig economy

research (Margaryan & Hofmeister, 2021), this results in an overall hazy picture of a highly relevant societal development, which, it is generally agreed upon, is *a* future of work that is continuously growing (Baldwin & Forslid, 2020; Kässi et al., 2021; Meijerink et al., 2021; Munoz et al., 2022; Pesole et al., 2018; The Economist, 2018).

A lack of reliable statistics and measures to compare between different forms of the gig economy as well as geographic regions hampers research efforts in this field (O'Farrell & Montagnier, 2020). While cross-sectional (or longitudinal, with few iterations) surveys of gig economy workers have been conducted (e.g. Berg, 2016; Cedefop, 2020, 2021; Pesole et al., 2018; Urzi Brancati et al., 2019), they are often methodologically weak, employing relatively low sample sizes and covering large geographic regions, calling into question their representativeness. Further, platform providers seldomly publish usage data for competitive reasons, making understanding the size and dynamics of the gig economy a matter of inference.

Multiple approaches have been suggested to derive metrics for *remote* forms of overt digital labour. One prominent example is the OLI (Online Labour Index), which continuously monitors the volume of work offers published by a range of platforms (Kässi & Lehdonvirta, 2018; Stephany et al., 2021). More sweeping data-driven assessments of online labour markets reveal that while there are 163 million registered users on remote gig economy platforms, only a fraction (19 million) have obtained work through these channels and even fewer (5 million) did so regularly (Kässi et al., 2021). This has prompted the question whether the gig economy model is failing to live up to its grand rhetoric of a liberated labour market (Fleming et al., 2019). Despite this, the global revenue for digital labour platforms of the remote kind was estimated to lie above \$50 billion in 2019 (Fredman et al., 2021). The inclusion of gig economy related questions into longitudinal household panel studies, such as the UK Household Longitudinal Study (UKHLS), promises better and more reliable statistics on both the remote and local gig economy going forward, at least in selected locations.

What I demonstrated over the previous paragraphs is that data on the gig economy are commonly of poor quality, which hampers research efforts into this societally relevant phenomenon. While innovative methods have been used to gauge remote gig economy, suggesting it is a substantial market affecting millions worldwide, only recently have questions about the gig economy been included in reliable longitudinal household panel studies, making these a relevant emerging data source for the study of gig work, which I draw on in this dissertation. However, while metrics about the gig economy have previously been hard to come by, numerous studies have been conducted about the experiences of gig workers, which I now proceed to briefly outline in the following section.

2.2.4 Labour agency in the global gig economy

Another ongoing debate in the academic literature shifts the analysis from the business model and economic metrics of the gig economy towards the experience of labour facilitated through digital platforms. This strand of research into the conditions of online platform work focuses on labour agency practices among gig economy workers as well as the real geographical implications of the superficially fully remote crowdwork (Anwar & Graham, 2020b; Wood et al., 2018; Wood & Lehdonvirta, 2021). *Labour agency* has been described as "spatially and temporally variegated", highlighting the necessity to account for the geographical location of workers while accounting for their embeddedness in "webs of wider relations with other social actors and institutions" (Coe & Jordhus-Lier, 2011, pp. 218, 221). Gig work has no immediate precedents due to its distributed and intermediated nature, prompting a reassessment of labour agency practices from the ground up. Katz's (2004) proposed classification of counterhegemonic practices into *resistance, resilience* and *reworking*, provides a useful framework, along which the literature on workers' experiences in the gig economy can be read.

In the context of labour agency, *resistance* is understood as taking "actions that subvert an organization's control system" (Cameron & Rahman, 2022, p. 39). The gig economy is primarily defined by the platform acting as intermediator (Kenney & Zysman, 2016) of work relationships and by governance through algorithms (Kellogg et al., 2020), which are opaque to the worker. Any *resistance* practice concerning digital platforms is therefore bound to involve the reverse engineering of algorithms to understand their underlying functioning and employing this knowledge to one's own (or one's group's) advantage. A recent comparative study of gig economy *resistance* on a transportation and manual task platform, proposes that the dynamics between algorithmic governance and workers' resistance extend beyond the platformised work environment (Cameron & Rahman, 2022). Most of the resistance practices identified by the authors happen on an individual level, highlighting a commonly perceived lack of collective action and predominantly individual-level or *atomised resistance* among gig economy workers (Veen et al., 2020).

Overcoming the *atomised* experience of working in the gig economy and taking a step further than individual-level *resistance* is a key challenge for *workers' solidarity* and *collective* *action* on digital platforms (Tassinari & Maccarrone, 2020). Unionisation and organised industrial action among *local* gig economy workers is on the rise, but it remains inhibited by factors such as geographical dispersion (Lehdonvirta, 2016), unsteady employment conditions (Schmidt, 2017; Wood et al., 2018) and a prevalent feeling among gig workers of not being adequately represented by traditional labour unions (Al-Ani & Stumpp, 2016). Platform providers have also been shown to engage in deliberate *anti-union* tactics to prevent worker organisation (Ford & Honan, 2019). Overall, the literature suggests that labour agency in the gig economy is severely curtailed, since *resilience* and *resistance* practices are limited by *atomised* work experiences and gig workers face hurdles in their institutional recognition, e.g. by unions. In this context, new forms of platform-native attempts at *reworking* labour agency are emerging.

Platform cooperatives have recently been proposed as a less-formalised (compared to unions) mode of collective resistance in the gig economy (Kellogg et al., 2020). Such groups have been shown to aim beyond basic resilience and resistance tactics towards a *reworking* of the fundamental concepts and ideas of the platform economy by leveraging the technological expertise of their members to design alternative worker-centric or worker-owned platforms (Meier, 2022). The monitorial work of gig economy watchdogs (e.g. Graham & Woodcock, 2018), often collaborations of academia, unions and workers, can also be categorised along the resistance–reworking continuum. By placing pressure on platform providers and informing workers about their choice of intermediary, such initiatives encourage change in the gig economy. 'Algoactivism' has been proposed as a broad label for individual and collective level resistance practices against algorithmic control in the gig economy (Jiang et al., 2021; Kellogg et al., 2020). Since any efforts to organised resistance practices. By contesting algorithmic governance in public, workers raise awareness and place pressure on the platform providers in an attempt to force change.

In this section, I have further defined the *overt* platform economy as describing those *local* or *remote* labour and work activities facilitated and intermediated by platforms. What emerges is that platformisation is today reconfiguring the way large swathes of the population work, yet knowledge gaps remain in the composition of the gig economy, its size and scale, and the experience of labour and work on platforms. Gig work is generally perceived as an atomised experience and workers face institutional hurdles in their organisation. Yet, evidence also exists for unprecedented platform-native reworking practices. To adequately address the phenomenon

of *overt* platformisation or gig work it is therefore necessary to identify a reliable data source to provide foundational data. Further, the experience of working on digital platforms should be approached from 'first principles', taking into account the unprecedentedness of gig work as a distributed and global phenomenon.

While the nature of the work relationship is increasingly shifted towards quasientrepreneurial freelancing or 'microproviding', what has not changed in the *overt* platform economy is the understanding of work being performed as a remunerated activity. In the following section, I outline key aspects of the contrasting *covert* platform economy, where the performance of work is not obvious but hidden, corresponding to cluster 3.) in the literature.

2.3 Covert digital labour

Covert platformisation shares with its overt equivalent the increasingly central role of digital platform technology as the intermediator of relationships. To illustrate how they differ, it is worth considering "gamification", where "the act of labor is hidden behind layers of play" (Scholz, 2017, Chapter 2.7). Enticed by the possibilities of *cyberspace*, researchers mused early on about the new realities of labour in virtual spaces, including MMORPGs (massive online role playing games), where well-heeled players bought in-game virtual currency from players in economically deprived regions (Cherry, 2009). However, these transactions still resembled their (exploitative) old economy counterparts. As the term cyberspace gradually lost its conceptual relevance and digital platforms became the analytical unit of choice, their inherent duality as spaces of both *overt* and *covert* labour and work became tangible. Social media platforms, for example, are the site of the overt labour and work of influencers, social media professionals and other content creators (Bonneau et al., 2021) but also the contested terrain of covert digital labour or *play-bour*, where seemingly quotidian and non-work related activities of interaction and play are melted into a new exploitable type of activity (Fuchs, 2014; Scholz, 2013). Platforms exercise "ideological control" over their users by commanding the "means of communication", i.e. maintaining a facade of voluntary participation while depriving non-users of certain social interaction (Fuchs, 2014, p. 91). The terrains themselves-digital platforms-in comparison to their theoretical predecessor cyberspace, may no longer hold the exclusive key to categorising the activities performed there. The connection of the labourer to the factory and the craftsperson to their workshop is not diagnostically conclusive where platforms are concerned (Márton & Ekbia, 2021). Instead, it is the combination of platform technology, increased capabilities for trace data

collection and analysis and a pervasive surveillance logic that characterises the *covert* platform economy.

2.3.1 Platformisation of discourse

Perhaps the most radical transformation of everyday life through platformisation lies in our communications, both between each other, e.g. through social media platforms (Bucher & Helmond, 2018), and with institutions, such as journalistic outlets. Journalistic products and attention generating personal content blur in a profit-driven platform environment (Ohme & Mothes, 2020). Platforms promise to replace uni-directional pipeline models with 'open' spaces for mutual participation, creating value for all participants. Their introduction has upended traditional gatekeeping roles, e.g. news editors, and reconfigured the epistemic process from linear to circular through direct feedback loops (Neuberger et al., 2019). The function of intermediaries, i.e. platform providers, in this new form of knowledge generation is a pressing question, in particular how the economic imperative of digital platforms can be reconciled with their new role as custodians of news and information in the public interest (Jarren et al., 2020). How their *covert* profit-motive affects intersubjectivity and discourse at the heart of democracy is a question of vital public significance (Helmond et al., 2019), and an ongoing debate in the academic literature seeks to understand the ramifications of the undermining of our fundamental right to privacy on digital platforms.

2.3.2 Platformisation and privacy

Privacy is a constant source of debate in policymaker circles reacting to hyperconnectedness and technological innovation. Regulatory frameworks, such as the European Union's General Data Protection Regulation (GDPR) recognise the centrality of this basic human right, though calls have been made for it to receive elevated consideration (Wachter, 2017). This intense response can be directly linked to the privacy violations that define the *covert* platform economy. One central aspect common to platforms is the *algorithmic intermediation* of (economic or informational) transactions, social interaction, decision-making, and our perception and understanding of the world (Mittelstadt et al., 2016). The wielding of algorithmic power is a key concern of *surveillance studies* in the Foucauldian tradition (Thiel, 2017, p. 209) and an increasingly studied mechanism in the platform literature (Zuboff, 2015, 2019a)¹². To profit from the *trace data* or *emissions* of users, platform providers leverage *analytics* to mine behavioural data and create group profiles—in effect *de*-, then *re*-individualizing the user (Floridi, 2012). Group characteristics trump and replace individual characteristics in the profit-oriented world of digital platforms and possibly lead to unintended consequences to individuals based on inferences at the group-level, greatly complicating the question of how privacy rights can and should be executed (Taylor et al., 2016). A host of ethical questions remain to be answered, and regulators and platform providers frequently engage in fierce cat-and-mouse races to wrestle out the clash between privacy and profitability. Therefore, to understand platformisation holistically, it is relevant to question how platform companies' underlying motives and power dynamics affect our experience *covertly*, in addition to any *overt* reconfiguration of work relationships.

To conclude this section, I note that the literature on platformisation suffers from some deficiencies. Regarding the *overt* gig economy, the literature draws heavily on unreliable metrics. This information is needed to contextualise the studies of workers' experiences in terms of a global transformation of our working lives. The literature on *covert* platformisation, e.g. the economic exploitation of our communication, covers a wide range of bases, the integration of which into a coherent picture of *platformisation* as a phenomenon is challenging. Yet, (the violation of) *privacy* and the dynamic of *intermediation* emerge as salient factors of platformisation worth investigating.

2.4 The totalitarian qualities of platformisation

In this review of the platformisation literature, I outlined four understandings 1.)–4.) that build on each other while shifting the plane of analysis from the individual business to the global societal level. I took my conceptual point of departure in the understanding of platformisation as transformative processes that affect the ways we work and interact, and found that while the reviewed literature generally agrees that platformised life is different in quality to its pre-platform equivalent, the impacts of this transformation are usually framed in economic terms.

Proponents of group 4.) see platformisation as a radical break in tradition akin to that of the rise of totalitarianism—a genuinely new experience (Zuboff, 2019a, p. 353). What sets

¹² It is worth noting that the debate on the dangers through privacy violation and surveillance in a mass-connected world is not new (e.g. Barber, 1998; Wicklein, 1981). The question is whether we heeded early warnings.

surveillance capitalism apart from other forms of digital capitalism, as per group 3.), is the diagnosis that, to expand, platform providers cultivate radical indifference among their user base. This subversive form of control—where human freedom is transformed from an end in itself to an exploitable means to an end-is linked to Arendt's theory of totalitarianism, except that it is not the rogue state but large private corporations striving for dominance (Zuboff, 2019a). From Arendt's seminal study on totalitarianism, surveillance capitalism borrows the idea of "dominating [...] human beings from within" (Arendt, 1951/2017, p. 426) as a proto-totalitarian quality (a precondition required for totalitarianism or, in this case, a particularly ruthless business model to arise). The undermining of a common factual basis and the sweeping and complete isolation of individuals by the breaking of social ties pave the way for totalitarianism and its proposed platform-age equivalent of 'instrumentarianism' to arise (Zuboff, 2015, p. 358). The concepts differ in that instrumentarianism is supposedly fundamentally an economic or market project-the notion of behaviourism taken to its perverse conclusion against which Arendt warned us (see Arendt, 1958/2018, p. 322); whereas totalitarianism is the coalescing of conditions resulting in the total absence of political life and its safeguards from which any heinous crime can follow (Arendt, 1951/2017). If platforms are grooming us for total behavioural exploitation by drawing on totalitarian patterns, the implications would be incomparably more sinister than solely good business for ruthless Silicon Valley 'puppet masters' (Zuboff, 2019b, p. 11). I argue that this oversight runs through the platformisation literature in general, which focuses selectively on the transformation of work, communication, etc., but fails to take an integrated view of how changes effected by platformisation might pave the way for more far-reaching transformations of active life—analogous to the origins, i.e. 'elementary' preconditions¹³, enabling totalitarianism proposed by Arendt in her theory of totalitarianism (Arendt, 1951/2017). By viewing platformisation solely through a 'profit motive' lens and as a "market project" (Zuboff, 2019a, p. 360), the literature leaves a blind spot that I propose to address in the course of this dissertation.

Surveillance capitalism is the fantasy of groups 1.)–3.) in the literature thought through to their logical conclusion: capitalistic ventures apt at using digital technologies to exploit increasing strata of our lives. The comparison with totalitarianism is problematic due to the underlying assumption that it was a 'political project' (Zuboff, 2019b, p. 20). On the contrary, it was the

¹³ This is better captured by the book's German title "Elemente und Ursprünge totaler Herrschaft" or 'elements and origins of total domination' (my translation).

absence of the *political* and the presence of *ideology* that defined totalitarianism, and it was the experience and logic of *imperialist* expansion that served as the vessel to introduce the kind of esoteric truth-telling that flows from a 'historical movement' deep into the fabric of our lives (Arendt, 1951/2017). The notions of platform imperialism (Jin, 2013), digital feudalism and platform hegemony (Lehdonvirta, 2022) thus represent totalitarian preconditions¹⁴. Imperialism and its relentless logic of never-ending expansion served as a model and motor for totalitarian movements. Its invocation in the platform literature reminds us that the accumulation of *statelike* powers in corporate forms is not unprecedented, e.g. in the various colonial East India Companies, but its implications reach far beyond economic benefit. What the platformisation literature does not consider is that the emergence of such imperialist-capitalist ventures represented an unfortunate gradual stepping stone for the uncontrolled excesses of the 20th century. If the comparison is drawn, then the implications should be considered as well.

According to the literature presented in groups 1.)-4.), platformisation is to varying degrees altering our daily lives. As the alarm bells are sounded, I note that most of the texts either describe only what has changed (or stayed the same) under platformisation rather than how platformisation changes the human condition. Where the literature tries to capture these dynamics (e.g. Zuboff, 2019a), it often fails to escape the confines of a capitalist framing and resorts to viewing platformisation as an economic phenomenon, driven by the profit motive of unscrupulous Silicon Valley types. The invocation of Arendt to warn against the dangers of totalitarian qualities in platforms might be warranted, but the adopted approach is too narrow to qualify as an Arendtian analysis. The novelty is not that platform companies accumulate vast amounts of (behavioural, data, etc.) capital through exploitation, this is rather business as usual (see Morozov, 2019), but that platforms, through their reconfiguration of our work and communication, affect our ability to be political. The underlying argument, whether represented as imperialism, feudalism or new forms of (surveillance) capitalism, only illuminates one part of this equation. If platformisation truly effects a radical break from pre-platform life, then we must evaluate it in terms of its impact on the human condition as a whole and strive to understand how it is reconfiguring our basic human activities of labour, work and action. Assuming the platformisation of our work and leisure

¹⁴ The notion that digital platforms companies exhibit totalitarian qualities has also been discussed in the media, see, for example, this opinion piece by Julian Assange from 2014:

https://web.archive.org/web/20230308151455/https://www.nytimes.com/2014/12/04/opinion/julian-assange-on-living-in-a-surveillance-society.html (accessed on 08.03.2023).

is indeed introducing proto-totalitarian qualities into the ways we work and communicate, then the prescient question we must ask is how this alters political life, understood in the Arendtian sense as the fragile equilibrium of activity that prevents us from slipping into totalitarianism. What platform researchers risk missing when treating platformisation as a 'market project' is that the fundamental transformation to our activity brought about by it could lead to unforeseen consequences. They might be tempted to focus on individual companies and lose sight of the brewing storm—or, possibly, they might fail to recognise the opportunities inherent in platformisation by framing it solely as an exercise in economic exploitation. While Arendt is frequently invoked, her conceptual apparatus is often put to use timidly. In its more rigorous application, I argue, lies the opportunity to contribute a valuable perspective to the ongoing platformisation discourse.

In the next chapter, I introduce Arendt's *vita activa* as a suitable analytical framework to interrogate cases of *platformisation* in terms of their impact on political life. This model, I argue, provides the missing link by bridging human activity (labour, work and action) to the stability of the public realm. An Arendtian perspective complements the existing literature by extending the prevailing economic framing of platformisation with a normative dimension, which views economic developments in terms of their impact on political freedom.

3 The Arendtian project and its continued relevance

In this chapter, I introduce the central theories and concepts of the *vita activa* and the public domain according to my reading of Arendt as a proponent of a pluralistic, performative politics that is closely connected to how the means of production are configured and valued in society. I do so with a view to applying these concepts to evaluate *platformisation* holistically, i.e. as a process affecting all three constitutive dimensions of the *vita activa*, which I briefly introduce here and expand on in the course of this chapter. What the Arendtian project¹⁵ provides is a language of human activity developed from anthropological first-principles, which can be used for discussing the process of platformisation and how it affects our political capacity on a more fundamental level. Introducing the Arendtian language of 'political life' to the platformisation discourse means making an effort to avoid framing the process of platformisation as a purely economic development.

Arendtian political theory is a wide and contested field, and my aim in this chapter is to establish a mutual understanding of the core terminology with the reader. My reading of Arendt positions her as a proponent of Machiavellian discursive politics in opposition to the Hobbesian mechanised state, which she recognises in the deadly totalitarian movements of the 20th century. Arendt's writings should always be understood in relation to her personal biographical context and experience with totalitarianism, which to her represented the absolute decay of political life and its eventual replacement with an ideology-driven bureaucratic killing machine. However, Arendt does not provide any formal analytical framework or method in her writings. Therefore, to apply Arendtian theory to a contemporary phenomenon such as *platformisation*, it must first be reconstructed from its historical fragments, especially the structure of the Athenian polis and the 'establishment of truth' in the public realm. By establishing the meaning of the key terms and concepts Arendt draws on in her own analyses, they can be threaded together into an analytical framework and repurposed.

3.1 An introduction to the vita activa

In the first part of this chapter, I give a brief overview of the basic ontological categories of the vita activa, which form the central analytical components for my analysis of

¹⁵ In this dissertation, I draw predominantly on Arendt's writing from the 1950s and 1960s, when she produced the majority of her political theory, including her major works *The Origins of Totalitarianism* and *The Human Condition*.

platformisation. I then expand on each of the terms by anchoring them in the history of ideas and Arendt's own biography and method. Arendt differentiates between three primary, mutually dependent and hierarchical forms of activity in the *vita activa* (Arendt, 1967/2020): *labour*, *work* and *action*. They correspond to the three modes of being that humans find themselves in when they are among other beings and not contemplating (i.e. solitary). The first, *labour*, performed by humans as *animal laborans*, is equivalent to biological life itself in that it is cyclical and unproductive, since its products are immediately given up to consumption, which is part and parcel of the condition of labour. It lies outside the *means-end* distinction, since in a perpetual, recurring process the question of an end does not arise. Where *labouring* accrues a surplus, it can be used to free the self or others temporarily from basic biotic necessities, allowing them to engage in the 'higher' activities of the human condition, *work* and *action*.

In contrast, *work*, the domain of *homo faber*, is a linear orientation of the *means* (e.g. the *craftsperson's* ideas or mental models and their tools and skills) towards its *end*, the production of a *use-object*. Such material or immaterial *use-objects*, characterised by durability and stability, form the bulwark that protect humans from the forces of nature (and the necessity of labour), granting them the required respite and infrastructure to 'stage' public life by acting and speaking. Put differently, the *human artifice* (the sum total of useful things and infrastructure) allows us to temporarily withdraw from *toiling*. In the case of *art*, the fruits of the work process fulfil another purpose by *ossifying* the speech and deeds of humanities to liberate them from the temporal constraints of the human lifespan, enabling cross-historical plurality of *humankind* rather than simply all humans currently alive.

The final form of activity, *action*, the prerogative of humans qua *zōon politikon*, takes place solely between humans in *plurality*. It involves stepping out of the *private realm* of the household and *appearing* and *revealing* oneself in the public sphere (guaranteed by the stability of the *topography of things* crafted by the *work* of *homo faber*). Through the *means* of *speech* and *deeds*—the *end* of which is never clear due to their inherent unpredictability—we aim to convince others to adopt our viewpoint of the world. *Action* is therefore simultaneously *agonal* (an act of revelation and self-expression) and *communicative*, in the sense that we can only yield power as a function of plurality by successfully convincing others to adopt our view of the world. Arendt's phenomenological discovery of the basic "modes of human existence" (Arendt, 1961/2006a, p. 255) should be understood not as *pure* forms of being, but as configurations of *humans-in-activity* variously skewed at different times in history.

Arendt establishes this triad of human activity to illustrate and justify her critique of modernity as a series of *ontological reversals*. The first in this series is the gradual devaluation of the *vita activa*, political life, in favour of the *vita contemplativa*, the life of the mind (Arendt, 1958/2018, p. 289). While the citizens of the idealised Attic *polis* recognised both *activity* and *contemplation* as tantamount, the rise of Christianity and occidental doctrine beginning with Plato declared contemplation to be the higher good. The performance of politics and the maintenance of the public sphere thus lost their primacy and political life became a means to an end, such as citizen's security.

Politics, which results when "people gather together and 'act in concert'" (Arendt, 1958/2018, p. 244), was denigrated and replaced with a *manufactured* society, driven by ideologies produced by the Platonic philosopher kings in their various flavours (Arendt, 1958/2018, pp. 220–221, 225). Christianity in particular, with its glorification of "humble and contemplative men" over "active ones" has caused "abjectness and contempt for human things" (Machiavelli, 1531/1989, p. 331), in other words, a turning away from *worldly* politics. The ultimate expression of the manufactured state can be found in Hobbes' Leviathan (Arendt, 1967/2020, p. 424), i.e. the concept of an 'artificial man' to whom rights and privileges can be delegated in exchange for security. For Arendt, this reverence of ideas (originating outside worldly experience) over spontaneous, i.e. undetermined, action was the stepping stone to the calamities of totalitarianism in the twentieth century.

The atrocities of National Socialism and Stalinism were predicated, however, on another reversal in values. As Christianity retreated with the advent of modernity, a distorted form of the *vita activa*, hinged to ideology, displaced contemplation from its pedestal to become the primary focus of humanity in the form of *capitalism* and its perverse 'expansion at all costs' outgrowth *imperialism* (Arendt, 1951/2017, p. 163). Modern society revered not *action*, as per the Ancient Greek ideal, or *work*, as per the Hobbesian state, but *labour* and *consumption*. Marxian political theory enshrined this elevation of *labour* as the central ideal of society, for which "politics [could] be only a means to protect"—a process of guaranteeing something of higher value. Politics had become a *means* to an *end*. As the satisfaction of the *self* through ever-increasing consumption became paramount, Arendt diagnosed that humanity experienced "world alienation and not self-alienation" (Arendt, 1958/2018, p. 254), i.e. a retreat from the public stage of *zōon politikon*, the world, where action is performed, into the domain of *animal laborans*, the private realm of *labour*. This development continued to intensify through the rise of *mass society* towards what Arendt

saw as her contemporary *society of jobholders*, where automation and technological advancement had unleashed productive forces initiating the transition towards a society free of toil and unreservedly dedicated to self-reverence and limitless consumption¹⁶.

Arendt's assistant in later years, Kohn, summarised her inquiry of the human condition as motivated by the question of whether "it [is] possible that the capacities of active life—labor, work and action—and with them the status of human beings and their dignity may be lost altogether?" (2006, p. xvi). For Arendt, this loss entailed a collapse of all human activity into the category of *labour*, a threat she saw on the horizon as new technologies automated humans out of their work lives in the society of jobholders (Arendt, 1967/2020, p. 309). When we are reduced to the state of *animal laborans* and trapped in the relentless cycle of production and consumption, the potential for action and with it political life disappear from the world, lowering the barriers for the poison of totalitarianism to seep in and take the helm.

What makes Arendt's work timelessly relevant is her discovery that the modalities of work and labour are intimately connected to our identity as political beings, not in the sense of them being political activities themselves, but in establishing the necessary conditions for (political) action to spontaneously take place. Despite being decidedly 'of its time' and focusing heavily on space-age technologies, I show over the course of this dissertation that the analytical lens of the vita activa developed by Arendt in The Human Condition (Arendt, 1958/2018) can be transferred to inquiries of contemporary technological challenges and the new world of work confronting us today in the platform economy. Rather than isolating Arendt's thoughts from their conceptual origins, I attempt to portray the thinker in context, taking stock of her tumultuous biography and the literary sources that greatly shaped her ideas, particularly those loosely connected under the banner of 'civic republicanism' (d'Entreves, 2019; Straßenberger, 2022b), a line of thought traceable to Aristotle, Machiavelli and Tocqueville. This, I argue, is required, since Arendt never produced an easily digestible theory of totalitarianism, active life, etc. Instead, her work has been characterised as descriptive and normative, sidestepping the question of causation (Mason, 2019). In consequence, to utilise Arendt's theoretical apparatus for an analysis of platformisation, I propose that 'recreating' her core concepts from her sources-the thinkers and ideas that inspired her—is essential to operationalise her work. Rather than relying on her conclusions, which must

¹⁶ A society oriented towards *animal laborans* is a place "[...] where work is performed without product [and] senselessness is daily produced anew" (Arendt, 1951/2017, p. 599). Even if such a society manages to rid itself of the necessity of labour, it remains characteristically a labourers' society newly freed to pursue consumption instead.

be understood as products of their 1950s context, my aim is to follow Arendt's traces through the history of ideas in a contemporary context. Following this contextualisation, I present a reading of Arendt's politics as theatrical-performative that is a compromise between the *agonal* (self-proclaiming) and *associational* (consensus-seeking) lines of interpretations of her work (Bowring, 2011, p. 158). I pay particular attention to the concept of *the world* in Arendtian thought, highlighting a set of principles that can be used to evaluate the role assumed by platforms as the fabric or institutional order of contemporary active life. Clearly defining my reading of Arendt and laying out the analytical constructs against which to evaluate the empirical evidence presented in this dissertation provides a sufficient introduction to Arendtian theory for those unfamiliar with her work and situates my contribution within the lively secondary literature on Arendtian thought (e.g. Meyer, 2021). To better understand Arendt's unconventional terminology, it is useful to study how they originated by turning to her method.

Arendt developed a unique approach to theorising, influenced by the *fragmentary* technique of Walter Benjamin and Heidegger's phenomenology, that defies convention in many places and has occasionally led to discontent and rejection among her readership (Villa, 2000, pp. 163, 177, 279). Her writings resist easy categorisation into established categories of political or existential philosophy, instead appearing as a potent mix of historical inspiration, deep philosophical inquiry, political treatise and sharp commentary on current affairs. Readers seeking the purity of an historical analysis or a readily communicable and conclusive philosophy are frequently frustrated and disappointed (Miller, 1995). Yet, it is precisely this fast-paced storytelling (Young-Bruehl, 1977) and the sweeping essayists' analysis of humanity in context, without submitting to the formal rigour conventionally demanded from a philosopher or historian in academia, together with her plucking of ideas from history and reassembling them into compelling narratives, that explain the enduring and cyclically resurging fascination with and reception of her work (Meyer, 2021). The topics that moved Arendt in the 20th century: totalitarianism, freedom and politics have never lost their imperative importance, but her critique of modernity as she experienced it in the wake of humanity-dominating technology in the form of satellites, nuclear fission, "giant computers" (Arendt, 1958/2018, p. 172), and the trauma of the 20th century from the immediate survivor's perspective, can seem dated in the face of today's technologies—in stark contrast to the ideas that guide it. In this dissertation, I turn Arendt's instruments of analysis towards a pressing technological issue of our time: the *platformisation* of labour, work and action. The danger posed by technology has shifted its position from being external, domineering and

threatening (e.g. satellites or giant computers) to exerting influence stealthily, from within our pockets or location- and shape-less 'clouds' (Runciman, 2020a). Workplaces have been replaced with *locationless* multisided markets, separating platform workers from their physical geographies. Recombining and redirecting Arendt's approach to contemporary issues is an exercise in the spirit of "thinking without a bannister", i.e. unbound by tradition (Arendt, 1968/2019b, p. 20). Arendt recognised the political relevance of activity and marshalled unconventional understandings of labour, work and action as a lens through which to study the structure of modern society. I demonstrate that turning this Arendtian gaze towards platformisation of everyday life will allow us to comprehend this phenomenon with a previously unavailable lucidity.

This chapter provides a biographical context for Arendt's thought-world and discusses issues arising from the language and translation of her central theoretical work, The Human Condition or vita activa, which this thesis draws on primarily. The necessity of adopting a holistic view is mandated by Arendt herself, who's thinking and writing resemble a web of ideas rather than a unified theory, to avoid unduly isolating and elevating individual strands of her work (Villa, 2000, p. 1). Arendt draws equally on historical sources and personal encounters, making an understanding of her biography and literary sources indispensable to effectively utilise her analytical apparatus. Based on these insights, I proceed to discuss her method and attempt to situate her work in a history of ideas, highlighting key concepts she developed from the works of poets, authors and philosophers. Then, I outline Arendt's investigation of totalitarianism as the primary backdrop and motivation for her analysis of the conditions of modernity. Once the contextual foundation is laid, Arendt's theory of active life is discussed by focusing on each of its constitutive activities labour, work and action, as well as her key concepts of the private, the public and Gesellschaft (the social). Finally, I discuss the critique of modernity Arendt presents in the Human Condition and summarise the key concepts I draw on for the purpose of my inquiry into platformisation. Since, as mentioned previously, my aim in this dissertation is to 'recreate' the Arendtian approach in the *platformisation* context, it is necessary to furnish the reader with a 'snapshot' of my reading of Arendt's theoretical work, which is subject to constant reinterpretation and debate. I do not aim to isolate any authoritative reading of Arendt, but hope to allow the reader to follow in my footsteps through a corpus of literature that is often unsystematic and hard to penetrate.

3.2 Biographical notes on Hannah Arendt

Hannah Arendt was born in the German town of Hanover in 1906 to an assimilated Jewish family. In early childhood, her parents returned to their ancestral town of Königsberg, where she experienced a tumultuous childhood marred by the early death of her father and the threat of Russian invasion. She fled to Berlin with her mother in 1914, where she completed her secondary education (Heuer et al., 2011, p. 1). Her Jewish identity became a factor only later in her life, when she engaged with the Zionist movement during the early period of Nazi rule in Germany in the late 1920s and early 1930s (Miller, 1995).

Her move to Marburg to study philosophy under Martin Heidegger and Edmund Husserl in 1925 turned out to be a pivotal and defining moment for the young Arendt both academically and personally. Admiration for her teacher turned into a love affair that still shapes her public image today (Wolin, 2015). Having broken off the relationship with Heidegger, she completed her doctoral thesis on "Saint Augustine's Concept of Love" in 1929 under the auspices of Karl Jaspers at the University of Heidelberg, another source of philosophical inspiration and a lifelong sparring partner for Arendt. Heidegger formally joined the Nazi ranks in 1933, dreaming of becoming a *Führer* for the German academic landscape, and purged Jewish colleagues from his university (Wheeler, 2020). Only in 1950 would Arendt rekindle contact with her former idol.

Having fled Germany in 1933, Arendt moved to Paris, where she made two acquaintances that would shape her literary and personal life. The first is a friendship she developed with Walter Benjamin, the German literary critic and self-proclaimed *homme de lettres*, whose method would upend her ideas and shape her writing profoundly. The second, Heinrich Blücher, a political activist, would become her second husband and companion until death. Blücher and Arendt left France for America in 1940, where she lectured at numerous high-profile universities in the postwar period (d'Entreves, 2019). Learning English became a central aspect of Arendt's life in this period, and she began to write literary commentary and essays in both German and English, though her mother tongue should remain influential throughout her life¹⁷.

When Arendt learned about the holocaust crimes in Germany, she was taken by surprise by horrors that she had thought impossible, sparking the notion of a collapse in tradition that

¹⁷ Arendt described the often extensive editorial and translation work performed by herself, professional editors, and friends as her texts being "Englished" (Turner, 2021).

informs a large share of her work. As a result, she began a major project that culminated in *The Origins of Totalitarianism* (Arendt, 1951/2017), which controversially expands the concept of totalitarianism (characterised by individual isolation and *superfluous* human life) to Stalin's Soviet Russia. Her philosophical theories meanwhile were compiled into *The Human Condition* (1958/2018) or *vita activa*, which originally started as a critique of Marxism but developed into a stand-alone work. It was intended as the first of a two part publication series covering active life and contemplative life. She died in 1975 with the second part, intended as a phenomenology of the mind without falling back on Hegelian metaphysics, left uncompleted (Heuer et al., 2011, p. 7).

During her lifetime, Arendt drew international attention and controversy with her coverage of the Adolf Eichmann trial, first as a series of essays for the New Yorker, then as a book *Eichmann in Jerusalem* (1963/2006). Her idea of the "banality of evil"—the "thoughtlessness" (Arendt, 1963/2010, p. 57) she identified in Eichmann—caused major upset due to her refusal to demonise Eichmann and by criticising Jews complicit (albeit deliberately deceived and under the threat of death) in facilitating the Nazi extermination machine (Bowring, 2011) and continues to be debated today (e.g. Stangneth, 2016).

Arendt died in 1975 of a heart attack and despite (or perhaps because of) her unconventional methods, a personal history deeply entwined with the flow of modern history and fearlessness of controversy, she remains one of the most influential political theorists and public intellectuals of the 20th century (Villa, 2000, p. 1). What this section achieved is to surface some of the key influences that shaped Arendt's method, such as her friendship with Benjamin, and introduced the key themes of totalitarianism and evil to her writing. In the remainder of this chapter, I expand on these concepts and describe Arendt's method in more detail before proceeding to outlining the central categories of her philosophy. In doing so, I familiarise the reader with the analytical apparatus used by Arendt and the sources of her sometimes unconventional terminology, which I draw on in this dissertation to analyse the impact of platformisation on the way we work and, by extension, our political capacity.

3.3 Arendt's literary cosmos

3.3.1 Lost in translation

Language is an important consideration when reading and interpreting Arendt's diverse writings. Her humanistic education meant that Latin and Greek took precedence over modern languages during her formative years at school and university. Exile in France meant Arendt possessed only little English when she arrived in the United States in 1941. A prolific and enthusiastic learner, she quickly achieved language skills fit for publishing academic and popular work. Despite this, she considered German and English different to a degree where it is "incomparably easier to express philosophical thoughts in German than in English" but "the English language and to a lesser extent French [are] incomparably better for political thinking" (my translation, Arendt cited in Heuer & Ludz, 2022). Her Denktagebuch ("thinking diary"), a fragmentary collection of observations and thoughts, provides additional details on how the languages differ. English, she observes, is marked by a form of "thinking by association", whereas German thinkers proceed "by way of making distinctions" (Arendt, 2002, p. 771; Heuer & Ludz, 2022). The Human Condition clearly follows the latter paradigm, prying apart everyday concepts to reveal their genuine composition at a lower, hidden level, which she contrasts with each other to explain tensions in society. As distinction and differentiation take on central roles in her philosophy (see Arendt, 1958/2018, p. 176), it is important to include the German perspective, where it is available.

Arendt developed a particular publishing pattern for her major works that saw her translate the English first editions into German herself, using the translation process to update and revise the text and subsequently transferring the changes back into the English second version (Heuer & Ludz, 2022, p. 17). Her philosophical writings, in particular "The Human Condition" and its German counterpart "Vita Activa oder vom tätigen Leben" have been described as essentially two different texts (Tsao, 2002). In this dissertation, I draw mainly on the German edition of "Vita Activa oder vom tätigen Leben" but refer to "The Human Condition" in its revised edition, where verbatim citation is necessary. Working in this way with dual central texts, I aim to capture both the associational and distinguishing details of active life.

3.3.2 Fragmentary historiography: Straddling Benjamin and Heidegger

The influence of Walter Benjamin, whom Arendt intensively befriended during their mutual exile in Paris, is most evident in her method. The homage Arendt pays to her friend in a prosaic preface to a posthumous collection of his essays illustrates this intellectualmethodological debt, since it could easily be applied in reverse to the author herself (Arendt, 1970b). Her characterisation of Benjamin as a "pearl diver" who discovered that the "transmissibility" of the past has been severed and must be replaced by a piecemeal "citability" (i.e. the power to retrieve from the piles of history valuable morsels of thought) mirrors Arendt's own approach to historical sources, the accurate representation of which was perhaps never among her primary intentions (see Young-Bruehl, 1977). The poetic origins of this idea can be found in Benjamin's "angel of history", who regards the *catastrophe* of the piles and ruins of history, but is prevented from reassembling the past by the unalterable wind of progress (Benjamin, 1942/2010, p. IX). The most we can hope for is *fragmentary historiography* (Benhabib, 2020; d'Entreves, 2019, p. 7)—to salvage and cherish individual fragments of history for use in our own story. Benjamin, according to Arendt, recognised that the events of his lifetime (totalitarianism, in particular National Socialism) had exploded history into fragments, obscuring any continuity and leading to an irreparable "break in tradition" and a "loss of authority" of doctrines drawing their legitimacy from historical continuity or tradition (Arendt, 1970b, p. 193). It is perhaps worth clarifying, in Arendt's own words, that "tradition and past are not the same, as the believers in tradition on one side and the believers in progress on the other would have us believe" (Arendt, 1961/2006a, p. 93). Instead, tradition and progress are the fictions of society, the mores, that since Roman times "enjoined fathers [...] to their sons, from one generation to the next" (Kohn, 2006, pp. vii-viii). As long as the Roman empire existed it was her own legacy. The same could be said about occidental culture up to the cataclysmic rupture of its moral fabric in totalitarianism. As Arendt put it: "Auschwitz should not have been possible"-according to tradition (my translation, Arendt, 1964). This view of historical cessation allowed her to treat the phenomenon she encountered in totalitarianism as something entirely novel and not explicable in the ideas and language of our tradition since Plato.

The insistence on a "final breakdown of the traditional authority of religion, natural law and human conscience" that Arendt repeatedly presents in her writings may seem strange to the reader and has proven itself to be, arguably, partly incorrect, since the crimes of the Nazi regime were and are until this day judged through a lens at least rooted in morality (Miller, 1995). It should be understood as her twofold attempt to 1) highlight the total form of domination in Nazism and Stalinism that involved the complete political isolation of the individual and the replacement of factual truth with doctrine and 2) to justify her methodological liberalism, i.e. that the tools to conceptualise a movement that fabricated truth by cutting its ties to tradition cannot be found by reconnecting with it. Analogous to her conviction that "if you are attacked as a Jew you have got to fight back as a Jew" (Arendt, 2018, p. 495) to comprehend totalitarianism and rebuild and reorganise ourselves, we cannot fall back on "our traditional tools of understanding" (Arendt, 1954/1994, p. 310) but must offer something equally novel in response. For Arendt "our tradition was broken, in the sense that our traditional political categories were never meant for such a situation" (Miller, 1995, p. 10). What she proposes in response is a re-assemblage of Greek virtue ethics, spontaneous political action and philosophy.

When Arendt describes her project as "a reconsideration of the human condition" (Arendt, 1958/2018, p. 10), she does not call for reconnection with an existing historical lineage but to roam the experiences and convictions of past peoples to identify remedies for our contemporary situation. The power to "burst the continuity of history" (Benjamin, 1942/2010, p. XV) as the essence of revolutionary action, an impulse that Arendt develops into the idea of natality (the severing and re-starting of historical continuity) as the quality of the vita activa par excellence (Knott, 2022), demonstrates how method and content are inseparable in Arendtian terms. "To think what we are doing" (Arendt, 1958/2018, p. 5) can therefore never be achieved by connecting to an imagined tradition (the history of which was undoubtedly written and falsified by scores of victors) but by remembrance and storytelling (Villa, 2000, p. 279). Instead of relying on "ruined" categories of judgement (Rosenmüller, 2022, p. 226), we must exercise free thought or, in Arendt's words, "[think] without a bannister" (Arendt, 1968/2019b, p. 20) if we want to analyse contemporary phenomena with clarity. Adopting a Benjaminian method empowered Arendt to engage in a shallow but broad reading of literature and historical sources, a rapid traversal of vast intellectual planes, in contrast to the deep but narrow furrows of philosophy¹⁸. She retrieves historical fragments (in the spirit of the pearl diver) and develops them into new concepts and vocabulary to explain and interpret "unprecedented" contemporary phenomena-urging us to resist the false idol of explaining the new and emerging by rooting it in tradition (Baehr, 2002).

¹⁸ Instead, Benjamin (quoting Brecht) suggests rejecting "depth" altogether, since "depth is a dimension unto itself, i.e. depth - and therein nothing comes to light" (my translation, Arendt, 1968).

By assembling historical fragments and contemporary issues in such a way that they "[...] clarified and illuminated one another [...] so that finally they would no longer require any interpretative or explanatory commentary" (Arendt, 1970b, p. 163), Benjamin hoped to penetrate a hidden *superstructure*. In contrast, Arendt adopted for her own work precisely this "wide-eyed presentation of actualities" (Arendt, 1970b, p. 163; Young-Bruehl, 1977) while rejecting the underlying Marxism. Inspired by the Arendtian approach, I apply this method of productive juxtaposition of observations and thought fragments to the phenomenon of platformisation in this dissertation.

Arendt also borrows methodologically from Heidegger, her erstwhile teacher, from whom she adopts not the often misattributed "polis envy" (Wolin, 2015, p. 69) or his preoccupation with the ultimately private *Being* or *Sein*, which she inverts by elevating plurality¹⁹ to the highest ideal, but his 'probing' phenomenological method of regaining experiences and meanings that have been obscured by centuries of philosophical tradition (originating with Plato) (Villa, 2022). Deconstructing philosophical tradition to recover its basic components or Urphänomene bears obvious similarities to Benjamin's approach (d'Entreves, 2019, p. 8) and is an example of the 'German' way of thinking by distinction. Philosophy, purely contemplative and warped by a "grand tradition" from Plato to Marx into forcing mechanistic solutions onto political issues (Villa, 2022), whether in the form of an 'artificial man' (Hobbes) or hidden 'superstructure' (Marx), is in Arendt's terms unable to truly represent experience, which instead must be "distill[ed] from the body of non-philosophical literature, from poetic, dramatic, historical, and political writings [...]" (Arendt, 1961/2006a, p. 150). She shares with Heidegger the phenomenological understanding that "experience is constituted by an implicit, pre-reflective understanding of phenomena" (Borren, 2020). Therefore, to understand human activity untainted by philosophy, it follows necessarily for Arendt to turn to its last historical instantiation in Attic democracy.

3.3.3 The language of the polis

Arendt's political-philosophical theory is centred around Aristotle, as a direct consequence of the fragmentary approach inspired by Benjamin. Language itself provides the

¹⁹ Plurality to Arendt is "sheer human togetherness", the state of being "*with* others and neither for nor against them" (Arendt, 1958/2018, p. 180).

initial clue for her investigation of politics by directing us to the onset of Western philosophy. "The Greek polis", Arendt claims, "will continue to exist at the bottom of our political existence - that is, at the bottom of the sea - for as long as we use the word 'politics."" (Arendt, 1970b, p. 204). This amounts to an implicit acceptance of the Aristotelian notion that politics is a fundamental aspect of humanity and that we are as individuals qua *zōon politikon* oriented towards the *polis*, where *good* life is situated (Herzog, 2019, p. 150). Despite taking her departure in Heidegger's de- and re-construction of Aristotle, Arendt clearly deviates from her former teacher's views by emphasising the pluralistic qualities of human freedom and criticising the reductionism Heidegger engages in by conflating "being human" with "being self" (my translation, Rosenmüller, 2022, p. 227). The consequence, she argues, is a tendency to look in the wrong places (intrinsically) for qualities, such as freedom, dignity and rationality, that can arise only in plurality.

This commitment to plurality can be traced to Aristotle's notion that *equals* are *differents*, i.e. they are equal in their freedom but inherently different due to their plurality. Arendt fiercely rejects any attempts at reducing humanity to an archetypal *Man*, instead rooting the human condition in the inherent difference between individuals. Equality, understood in the Aristotelian sense as *sameness* in terms of having achieved the right to participate in the polis, is for her the only thought construct from philosophy or theology that extends into politics (Herzog, 2019, p. 151). Political *woman and man* exist only as the guarantors of the rights of *women* and *men* (Arendt, 1950/1993, sec. 4). This understanding of *equals* as *differents* informs Arendt's central idea of the "right to have rights", the necessary precondition to "live in a framework where one is judged by one's actions and opinions [...]" (Arendt, 1951/2017, p. 306). Much of the critique Arendt presents in *The Human Condition* and *Origins of Totalitarianism* is centred around a 'burnishing' or flattening of human individuality, drawing directly on Aristotelean language.

Arendt's central terminology, including her unusual distinction between *work* and *labour*, is a direct testament to her fragmentary historical method. For Arendt, Aristotle recognised the basic elements of the human condition before they were warped by centuries of Platonic inversion (elevating utopian contemplation above activity) and melted into a configuration susceptible to being skewed towards labour. The first distinction she borrows from Aristotle is that between *bios politikos*—active life—and *bios theōretikos*—contemplative life. In *The Human Condition*, she imagines with Aristotle ancient Athenian society to exhibit for the last time historically the separate principle categories of *active life* as instantiated in different human beings. *Man* (because

historically, full Athenian citizens were men) qua *animal laborans*—slaves and houseworkers; man qua *homo faber*—craftsmen; and man qua *zōon politikon*—free members of the polis. Though Arendt is well aware that Athenian society could not have corresponded to this radical simplification and was fragile and unstable—for in reality "man is always also a labouring creature" (my translation, Arendt, 1967/2020, p. 180)—she salvages this thought fragment to illuminate her further analysis. Therefore, keeping in mind that *animal laborans, homo faber* and *zōon politikon* do not correspond to 'pure' forms of existence but exist in relation to each other as a configuration, the Attic polis provides the appropriate vocabulary to express the previously referred to ontological reversals as skewing this configuration in one direction or another.

Arendt further expands on the Aristotelian categories of *praxis*—acting, an end to itself and *poiesis*—making, which terminates and culminates in an object—to construct her ontology of active life (Rosenmüller, 2022). Since Plato, she argues that, shying away from the unpredictability of action, philosophers have strived to mechanise the process of *making* politics, substituting *poiesis* for *praxis*. She also develops her understanding of where active life is situated—the private and public spheres—based on the separation of *oikos* and *polis* (household and politics) in Attic antiquity. For Arendt, the public sphere of the polis has a dramaturgical dimension, it acts as the 'world stage' (Arendt, 1967/2020, p. 179) and it is defined in a negative way as a space where private (coercive) concerns are not present.

This section introduced some of the key terminology of Arendtian political theory (public vs. private; labour, work and action) based on their origins in Attic democracy and how they are related to each other as 'configurations' rather than pure forms of existence. Building on these foundational concepts, Arendt incorporated ideas of proponents of 'civic republicanism' into her own model of politics.

3.3.4 Civic republicanism & discursive politics

The aforementioned *distillation* process of insights about active life from nonphilosophical literature provides a first inkling of Arendt's preoccupation with a particular group of authors, including Machiavelli and Tocqueville²⁰. In lecture notes from a course entitled "From

²⁰ Tocqueville plays an important role in the Arendtian cosmos of ideas as the originator of the *doctrine of decay* (Bluhm, 2022a) that afflicts the *human condition*. The decay and disintegration of the public-political sphere that Tocqueville outlines in his account of *Democracy in America* is mirrored by Arendt in the contemporary (to her) labour and consumption society, which has lost its connection to culture and political action (Straßenberger, 2022a).

Machiavelli to Marx", held at Cornell in 1965, she categorises them as "writers" rather than "philosophers" (Arendt, 1965), emphasising her understanding of politics as something that cannot be approached through contemplation but only by means of worldly activity. Machiavelli, she claims, writes from political experience and for its sake—he does not assume that politics has an artificial 'end' or goal that is higher than itself. This *experiential* view of politics as something undetermined by external influences (e.g. superstructure, ideology, philosophy, etc.) is central to the *vita activa* and in stark contrast to the writings of whom she dubs the "philosophers", e.g. Hobbes, Rousseau²¹, Hegel, Marx, etc. They write "from the outside", "aiming to impose non-political standards on politics"²². This misguided grand tradition of philosophy originating with Plato—a notion she shares with her erstwhile teacher Heidegger (Villa, 2022)—must be overcome in Arendt's view. In the following sections, I briefly highlight the central political concepts that Arendt adopts from Machiavelli and how she positioned her own theory against Hobbes and Marx. I do this to introduce my own reading (or 'reconstruction') of Arendt's theory to the reader in a comprehensible way and to introduce the key concepts used by Arendt to grasp the factors leading to the rise of totalitarianism.

Arendt's reception of Machiavelli informs her key principles of politics in *active life*. His writings—from the standpoint of the political outcast—depict precisely the type of political thought she demands: as an end to itself rather than measured with the yardstick of philosophy (Heuer et al., 2011, p. 198). Machiavelli's understanding of the political as *performative, primary* and *amoral*, is crucial to the coherence of Arendt's work (Baluch, 2014). She concurs with the notion that "all subjects should be debated" or reasoned, a guiding principle of Machiavellian thought (Machiavelli, 1531/1989, p. 240), and a precursor to her own radical embrace of plurality as the *conditio per quam* of (political) life (Arendt, 1958/2018, p. 7). It also contains the roots for her distinction between power and violence, as genuine *power*, according to Machiavelli, resulting from debate and communication, is more reliable than that stemming from coercion and may thus threaten a malevolent ruler (Machiavelli, 1531/1989, p. 47). "In the world", he claims, "the mob

²¹ Both Arendt and Rousseau, though they share a view of philosophy as inherently self-interested and distorting, attempt opposing theories aimed at uniting an increasingly materially and psychologically interdependent humanity. For Rousseau, humanity departs from an (originally free) "state of nature", where women and men are *noble savages*. This argument is inverted by Arendt, for whom freedom can only exist where it is guaranteed by institutions within which to exercise political action. Rather than construct an artificial humanity as per Rousseau's *general will*, Arendt sees the establishment of an artificial world (physical and institutional) to contain intersubjective human beings as the guaranter of freedom (Canovan, 1983).

²² Arendt herself refused the label 'political philosopher' preferring 'political theorist' instead (Arendt, 1964).

is everything" (Machiavelli, 1531/1989, p. 67). *Non-discursive* regimes, e.g. those guided by a central ideology, must therefore adopt outsized violence to coerce their populations:

For an uncontrolled and rebellious people can be spoken to by a good man and easily led back into a good way. A wicked prince nobody can speak to, and the only remedy is steel [...] for the curing of the people's disease words are enough, but for the prince's disease steel is required. (Machiavelli, 1531/1989, p. 317)

Aside from the centrality of discourse to politics, Machiavelli also emphasises the absence of morality from it. Arendt interprets Machiavelli's claim that to shore up their position, a prince "is often forced to be not good" (my emphasis, Machiavelli, 1531/1989, p. 72), as not entailing a call for being 'bad' but resisting the corruption of the political by moralistic influences, such as the church (Arendt, 1967/2020, p. 110). A moral politics is a coerced politics in this line of interpretation. Virtue rather than morality, i.e. goodness or badness, is the guiding principle of politics that Machiavelli rediscovers in ancient tradition and Arendt draws on these fragments of the "ideal type" of democracy in Ancient Greece and Rome (Villa, 2000, p. 9) as one of multiple historical thought fragments. The danger inherent in morality is that it leads "the generality of men, in order to go to Heaven, [to] think more about enduring their injuries than about avenging them", i.e. that it leads them into a particular kind of Christian sloth and coaxes them to withdraw from worldly concerns into private matters knowable only to them and God (Machiavelli, 1531/1989, p. 331). This elevation, central to Machiavelli's work, of virtue or glory over goodness inspires Arendt's categorical distinction between the *private* and the *public*. Striving for goodness, as in matters of morality or religion, is to Arendt a wholly private affair whereas virtue is expressed in genuinely public concern for the world (Arendt, 2018, pp. 474–475)²³. For Arendt, Machiavelli's political theory has therefore managed to re-gain the critical distance from Platonic utopian thought by judging politics *per se* and not in relation to a moral code (Bluhm, 2022b).

Arendt attributes the opposite intellectual development away from plurality and towards 'capital M' *Man* to Hobbes. The idea of a Hobbesian state, an artificial quasi-mechanical construction, appals Arendt (Arendt, 1967/2020, p. 425), who saw it as the root cause for the destructiveness of totalitarian rule—which is in her eyes the extreme version of this philosophy. People, she argues against Hobbes, must not trade in their public freedom to achieve security but

²³ She recognises this Machiavellian train of thought—the incompatibility of morality and efficient governance—in Brecht's character of Shen Te and her alter ego Shui Ta (Arendt, 1968/2019a).

rather they trade in the "safety, predictability and certainty that comes from the solitude of the thinker" for the enjoyment of collective action and human plurality (Bowring, 2011, p. 147). Turning the Hobbesian argument on its head, she claims the desire to *fabricate* security by embracing and elevating the values of *homo faber* (Arendt, 1958/2018, pp. 299, 300) has led to the subordination of the virtue of Athenian and Machiavellian politics under morality derived from ideologies.

Arendt's engagement with Marx is a central one, in the sense that her major philosophical work, the vita activa, was spun off from an ultimately abandoned critique of Marxism. Consequently, she borrows many of her central concepts from Marx's writings, including the notion of the metabolism of humanity and nature and the that of surplus value (Arendt, 1967/2020, p. 121). She concurs with his analysis that labour can "overproduce the necessities of life" (Bowring, 2011, p. 13), allowing ruling classes to elude labour by exploiting it elsewhere. In contrast to the idealised citizens of the polis, she sees the modern overlords gorging themselves on the surplus of others, thereby completing the labour-consumption cycle without stepping outside it (Arendt, 1967/2020, p. 177). The central category-mistake (Arendt, 1967/2020, p. 120) in Marx's work, according to Arendt, is the diagnosis that "self-alienation" is the disease afflicting modernity. Instead, she argues, an overemphasis on and preoccupation with the self rather than a genuine care for the world are the issues of modern women and men: "world-alienation [...] has been the hallmark of the modern age" (Arendt, 1958/2018, p. 254)²⁴. Arendt shows us—in an Aristotelian spirit—that humans are at their core political rather than productive beings as per Marx's definition (Bowring, 2011, p. 1). By centring humanity around labour and work, inherently subjective aspects of the human condition, we lose our bearings in the world (Arendt, 1967/2020, p. 128). It is the fallacy of constructing an artificial (capital 'M') Man or 'Gattungswesen' in the Marxian terminology (Arendt, 1958/2018, p. 116) that lies at the core of Arendt's critique of Marx.

3.3.5 Summary of the literary influences

In the previous sections, I demonstrated the origins of the central ideas developed by Arendt in the *vita activa*. First, I drew attention to the peculiar interplay between *differentiating*

²⁴ *World-alienation* can be understood as the loss or abandonment of the "togetherness of a shared public world" (Szerszynski, 2003, p. 212) and the retreat into a subjectivist mode of cohabitation characterised by private and natural concerns, i.e. labour and consumption.

and *associating* that stems from her bilingual writing and publishing process. Second, I traced the influences of Benjamin and Heidegger on Arendt's methodological approach and introduced the key Aristotelian terminology that she 'salvages' from the Attic polis and repurposes, in particular the consequential distinction between *praxis* and *poiesis*. Third, I showed how Machiavelli's notion of political life as communicative and detached from morality takes centre stage in Arendt's body of theory while Hobbes' mechanistic 'fabricated' state serves as the main antagonist. From Tocqueville she borrowed the concept of the decay of public life in contemporary mass society (Straßenberger, 2015, p. 27). Finally, Marx's *self-alienation* is, in Arendt's eyes, a misdiagnosis of the issue afflicting modern society, which is in fact 'world-alienation' or the removal from the *pluralistic intersubjectivity* that stands at the centre of her philosophy. The concepts I presented over the course of the previous sections are the key to my reading of Arendt and form the backdrop against which I interpret her political theory of *totalitarianism* and *active life* in the remainder of this chapter, before threading them together in an analytical framework and applying it to platformisation.

3.4 Totalitarianism

The analysis of totalitarianism and the desire to understand and caution against its root causes can be understood as the anchoring of Arendt's political theory—her contemplation—in reality. Totalitarianism, for Arendt, represented an entirely new form of domination enabled by the gradual alienation of individuals from 'the world', i.e. the 'in-between' that enable pluralistic political life. In totalitarianism, this distance between individuals is eliminated and 'men' are collapsed into 'Man'²⁵. To prevent totalitarian excess from occurring, its dynamics had to be laid bare, which Arendt attempted to do in her first major political work *The Origins of Totalitarianism* (Arendt, 1951/2017).

In essence, totalitarianism represented for Arendt the twisted ultimate conclusion of the Hobbesian state. The "total" in "totalitarian" stems from a proposal by Gentile, a fascist philosopher, that the state should transcend and supersede all individual lives, through a process of 'refashioning of the soul' (Mussolini & Gentile, 1932). National Socialism took this idea to its perverted (but inevitable) extreme, by proclaiming that an obscure ideological movement rather

²⁵ In *The Doctrine of Fascism*, Mussolini and Gentile make this belief explicit by stating that "to know men one must know man" (Mussolini & Gentile, 1932).

than the state ruled supreme, shifting any remnants of accountability resting with individuals into the esoteric domain. The resulting detachment of rule from ruler illustrates the poisonous dynamics of totalitarianism, in that the interpreter of the movement gains a position of absolute power over truth, which is no longer contingent on facts but *declarative*.

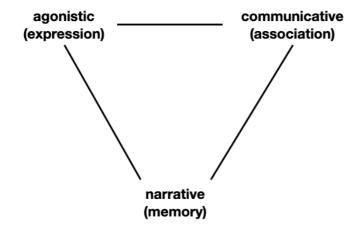
This raises the question of how totalitarianism and its benign counterpart *political life* can be effectively delineated. In the next sections, I outline two of the central characteristics that differentiate totalitarianism from political life: the absence of a functioning public domain and the nature of factual truth as a basis for political opinion. In the rest of this chapter, I then demonstrate how these attributes are anchored in the configuration of fundamental human activity and how this insight can be used as an analytical tool to trace the relationship between platformisation and political life.

3.4.1 The public domain and political life

The public realm, according to Arendt is not monistic, in the sense of *one* shared world for *one* global people to interact in. Instead, it is instantiated wherever and whenever a certain set of conditions are met between individuals. These basic qualities that any public space must possess are the 1) opportunity for (agonistic) expression, i.e. *effecting* action; 2) (associative) communication, i.e. convincing others to adopt one's opinion through deliberation; and 3) (narrative) memory, i.e. remembering effective speech and deeds by weaving them into a narrative (Figure 3). The first quality is derived from the Aristotelean notion of freedom as being free from coercion, i.e. able to enter the arena of the polis to battle out opinion. The sole unifying characteristic of those in the public sphere is that they must not be preoccupied by private concerns. The second quality reflects Machiavelli's concept of discursive power that arises only by convincing others to throw their weight behind a particularly convincing opinion. The third quality reflects the values of homo faber and refers to the common infrastructure (the *human artifice*) of physical construction that connects free individuals in space and institutions that preserve and codify convincing opinions that connect them through time.

Figure 3

Properties of the public realm adapted from Straßenberger (2015, p. 100)



What happens when one of the elements of this trinity is absent is illustrated by the experience of those French women and men who, after their participation in the résistance and the brief (and only in hindsight gratifying) experience of transacting the countries' relevant business "in deed and word", stood once again face to face with the "weightless irrelevance of their personal affairs". For a brief moment in time, they had created between themselves "that public space [...] where freedom could appear"-a domain of *effective* expression and genuine deliberation. What, in the flurry of war, they had not prepared for, was the "oblivion", the "failure of memory" that afflicted them once their common cause vanished, causing their instable construct in time to dissolve. Having neglected to "articulate [their] remembrance" (Arendt, 1961/2006a, pp. 3-6), they lacked the narrative or story, the mnemotechnical device of the public sphere, to continue their spontaneous encounter beyond its immediate purpose. This understanding of the public realm as a zone of constant discord expressed and communicated between individuals and the attempt to capture those policies that maintained its stability as institutions and laws can be traced to Machiavelli's notion of ideal republican government (Machiavelli, 1531/1989, p. 203). The integrity of the stabilising mnemonic dimension of the public is often overlooked in favour of Arendt's more explicit theory of action, yet, combined

with the hermeneutic-interpretative work of reporters, fact-finders, journalists and scientists, etc., it is one of the key safeguards of political life against totalitarianism.

This brings me to the factual basis of the public domain, which provides the indispensable underpinning for political interaction. In the next section, I trace the origins of Arendt's tripartite conception of the public sphere to the concepts of truth in pre-philosophical Archaic Greece and the political philosophy of Machiavelli. Truth-telling is a crucial factor in the decay of political life into totalitarianism when it is deprived of its critical distance to opinion and the web of facts that supports it. Where truth maps onto facts perfectly, the space for political contest is diminished and the 'checks and balances' of society are ultimately eroded.

3.4.2 Truth, lies and politics

The ideal subject of totalitarian rule is not the convinced Nazi or the convinced Communist, but people for whom the distinction between fact and fiction (i.e., the reality of experience) and the distinction between true and false (i.e., the standards of thought) no longer exist. (Arendt, 1951/2017, p. 622)

Arendt's understanding of *truth* is a composite form derived from pre-philosophical archaic Greek and Roman thought (Kohn, 2006, p. ix). Contingent factual truth, which is distinct from philosophical truth (Arendt, 1967/2006), forms the basis for political power, which is an exercise in the cultivation of like-mindedness, i.e. the formation of opinion (doxa) and convincing others to adopt them through deliberation and performance by appearing credible (Arendt, 1961/2006a, pp. 228-229). The pre-philosophical Greeks knew truth in two forms, either as magico-religious disclosure, i.e. as efficacious, atemporal and indissociable from behaviour (Detienne, 1996, p. 89) or as the result of *dialogical speech*, which was secular and derived from the social code of the warrior class. The first form is "aletheia [, truth by disclosure, which] is [...] at the center of a configuration structured around the major opposition between memory and oblivion" (Detienne, 1996, p. 87). The latter form is exemplified by the fact that the expression "to deliberate on the course of behavior to be adopted" is rendered in Greek as "to set the matter down in the middle" (Detienne, 1996, p. 102). This pre-political warrior code centred around the geometric middle indicates the origins of deliberative opinion forming. "To speak in the middle" and "to withdraw from the middle" became the virtues of performative politics (Detienne, 1996, p. 102), resembling the notion of stepping out of the private into the public. From this early distinction between revelatory and deliberative truth (which depended on convincing others in the

circle, making it *contingent*) stems the notion of *verification*²⁶. The notion of truth adopted by Arendt is more closely aligned with that of the Sophists, whose truth "was secularized, directed toward the external world, and founded on *praxis*" (Detienne, 1996, pp. 118–119), than the philosophers' "introverted" kind (in particular the Platonic notion of the rule of philosophy through contemplation, which lies outside human activity).

For Arendt, *lying*, that is, the deceitful distortion or misrepresentation of facts, to "say 'the sun shines,' when it is actually raining" (Arendt, 1971/1972, p. 5), has a considerable advantage over truth in that it is inherently compelling by actively being tailored to reflect a simplified and idealised (and ultimately unrealistic) virtual reality. The liar has *a priori* knowledge of the interests, opinions and tastes of their target audience, allowing them to adjust their *narrative* accordingly. Truthful facts, in comparison, lack this inherent compellingness. They are entirely *contingent*, in the sense that their power to convince rests on their truthfulness, which has to be established relative to other facts, by enmeshing it in the narrative network that is the *world* (Arendt, 1967/2006, p. 247), reminiscent of the epic warriors' circle. Its power to convince is thus borrowed incrementally from other, previously established facts in this web of knowledge. The idea that the truth is negotiated among people in public accompanies Arendt throughout her intellectual life. In her essay "Understanding and Politics" she quotes Kafka (Arendt, 1954/1994, p. 307):

*Es ist schwer, die Wahrheit zu sagen, denn es gibt zwar nur eine; aber sie ist lebendig und hat daher ein lebendig wechselndes Gesicht.*²⁷

Truth exists solely in the eye of the beholder due to it constantly having to be renegotiated based on factual information. Simply telling the truth, accordingly, is not action (and therefore not political) since it involves only repeating the result of a deliberative process. Determining truth, contesting non-truth and, importantly, convincing others of *one's viewpoint* of the truth (through the formation of opinions or $doxa^{28}$), i.e. stepping up into the public realm and

²⁶ The notion of verification can be traced to Athena at the trial of Orestes: "I say the wrong must not win by use of oaths."—"Examine him then yourself. Decide it and be fair." (Detienne, 1996, p. 105)

²⁷ "It is difficult to speak the truth, for although there is only one truth, it is alive and therefore has a live and changing face." (Arendt, 1970a, p. 28).

²⁸ The *doxa* (opinions) in question are in their nature those of Simonides not of Parmenides, i.e. they are not philosophical concerns of *being* or *seeming* but knowledge of the 'political' kind, the opposite of the revelatory *efficacious* kind. Their domain is contingency and they are naturally ambiguous. (Detienne, 1996, pp. 115, 117)

negotiating with others, is, in contrast, quintessentially action. Equally, the lie, the deliberate misrepresentation of facts or rather the statement of something in opposition to known facts, can only stem from genuine political action, from a desire to set something in the world in motion. As such, Arendt points out, the lie has always been a respected part of the political arsenal (Arendt, 1971/1972, 1967/2006).

The fact that Arendt does not condone lying in politics, but treats it rather matter-of-factly as a genuine and valued element of political life may initially seem disconcerting. The roots of this conviction can be traced to the discursive politics proposed by Machiavelli, who, suspicious of any esoteric source of truth, e.g. Christian moral doctrine, saw *verità effettuale* as politically instrumental. When Machiavelli claimed to "depart from the orders of others", this implied a radical embrace of *worldly* activity, i.e. putting facts to persuasive use rather than interrogating the value of their truth-claims (Machiavelli, 1531/1989, The Prince XV). To Arendt, politics has no morally desired outcomes, in the sense of religiously or ideologically inspired instantiations of good and bad. As long as the outcome is the result of the political process among a plurality of actors it is desirable, regardless of its impact on certain individuals, who are, after all, free to contest it. Danger lies, where the integrity of the public sphere is violated, for instance by the dissolution of clear boundaries between truth and lie by reinstituting truth by disclosure and the resulting inability to launch a challenge in the deliberative manner.

The commodification of lying in politics is for Arendt a sin of the Cold War era (Arendt, 1971/1972), and a notable departure from earlier attempts at manipulating the truth through all means available. Truth can be suppressed by violence, as was the case in Nazi Germany, where even 'knowing' of a concentration camp could be mortally dangerous, or in Stalin's Soviet Union, where recorded history was notoriously volatile and unreliable. The consequence was a retreat of the ordinary citizen from the public sphere into the private, where 'not knowing' became the default state of mind: "if everyone always lies to you, the consequence is not that you believe the lies, but that no one believes anything at all anymore" (Arendt, 1973/2018, p. 515)²⁹. An absence of credible (in the sense that they are not coerced) challengers to the informational status-quo in the form of journalists, fact-checkers, scientists, etc., brought about by violence and retreat into the private sphere leads to the degradation of political life that enables totalitarian regimes to

²⁹ This bears similarity to the logical principle of explosion, *ex falso sequitur quodlibet*. It explains partly how the erosion of totalitarian regimes were able to commit atrocities in the face of their population by making them *'unknowable'*.

control people. Yet, ultimately, a *lie* remained tethered to the ability to follow suit with political action even under reigns of terror. For Stalin to truly convince the world that Trotsky had played no role in the revolution, his "power [...] would have to amount to omnipotence" (Arendt, 1971/1972, p. 13), world-wide and all encompassing.

However, when public relations professionals were tasked with spinning politics during the Vietnam War period, they approached the problem as they would advertising, i.e. by dealing in their conventional quantity of choice, 'good will'. Untethered from the necessity of actuating their claims and following suit with political action, they were able to hone their lies and design them for ultimate consumer satisfaction (Arendt, 1971/1972). This, according to Arendt, is how the logic of the market (the domain of *homo faber*) invaded political speech. Political problems were framed as issues of market economics and addressed by optimising speech for customer satisfaction. As long as increasing amounts of data about consumers became available, the race for the most well-adapted rhetoric could continue—a dynamic that accelerated further with the advent of big data collected from social media platforms and other sources, which allow for unprecedented levels of profiling. The dire consequence of political lies disembedded from the world—the network of things and facts that we rely on to form an opinion—is that we can no longer draw on this network to inform our opinions. In other words, we lose our "bearing in the real world" (Arendt, 1967/2006, p. 252) and begin to live in mutually incompatible realities.

This development placed utmost strain on the historical institution empowering us to challenge falsehoods, the press. Arendt claimed that "so long as the press is free and not corrupt, it has an enormously important function to fulfill and can rightly be called the fourth branch of government" (Arendt, 1971/1972, p. 45). She goes so far as to formulate the access to validated information as a basic right, which she describes as "the right to unmanipulated factual information without which all freedom of opinion becomes a cruel hoax [...]" (Arendt, 1971/1972).

3.4.3 Summary of the key concepts

In summary, as long as the integrity of the public sphere and its political system, i.e. discourse among a plurality of actors, is warranted, it can self-correct. If the constitutive components (expression, deliberation and institutional memory) are pressured, e.g. by violent coercion or by flooding public discourse with unverifiable misinformation, political life is prone to disintegrate. The breakdown of the firmly established rule of *doxa* over *aletheia*, of opinion

formed by thought and deliberation over truth by disclosure, paved the way to totalitarianism. Once truth had been forcefully forked from knowledge, some of the most horrific crimes against humanity became easily justifiable against a fiction. The regimes of Hitler and Stalin, having forced their subjects to retreat from the public domain, installed a declarative, ideology-derived truth as the indisputable source of knowledge (Arendt, 1951/2017). Totalitarianism, then, ultimately resembles an evolutionary reversal in *truth-telling*. An inversion of "the transition from myth to reason" (Detienne, 1996, p. 104) that coincided with the development of political institutions and legal practices in Attic Greece to reposition a form of 'truth by disclosure' in the *centre* of human activity that is based on esoteric knowledge derived from an ideology, claiming to possess intimate insight into the mechanics of history. An overview of the qualitative difference in truth between 'political life' and 'totalitarianism' is provided in Table 1.

Table 1

	political life (+)	totalitarianism (–)
characteristics	contingent	absolute
	dialogical	revelatory
	exoteric	esoteric
source of truth	facts the world experience	ld ideology
means	deliberation	disclosure
end	doxa	aletheia
realm	public	private

The qualities of truth in political life and totalitarianism

Note. + / – emphasise that political life and totalitarianism are opposite ends of a continuum rather than discrete states.

3.5 A theory of active life

The central theoretical contribution made by Arendt is her ontology of active life, an identification of three basic anthropologically grounded categories of human activities (Arendt, 1958/2018, secs. 11-34; Bowring, 2011, p. 1,12). Having identified the qualities of totalitarian regimes in The Origins of Totalitarianism, she inquired about the changes to the fundamental 'human condition' that allowed them to form in the first place. It was intended as the first of a two part series covering both the active and contemplative dimensions of human existence, though she was unable to complete the latter during her lifetime. In the following section, I give an account of Arendt's fundamental activities of active life: labour, work and action. I also introduce the societal spheres they are connected with and sketch the dynamics of decay of politics she identifies. Arendt's critique of modernity is often scathing because it is intended as a stark warning against the ever-present totalitarian threat to humanity. Nevertheless, I argue there is a powerful redemptive aspect to The Human Condition that makes it an immanently useful work, even in our contemporary context. By providing us with an ontology of active life and spheres of activity, she allows us to evaluate contemporary technological developments, such as the rise of digital platforms, in terms of their holistic effect on society. The vocabulary of the vita activa is precisely what is needed to avoid reducing *platformisation* into merely one of its often disparate seeming facets. Its normative dimension then allows us to begin devising a remedy, a rejigging of platformised active life.

In the following section I outline the key characteristics of the *public*, *private* and *Gesellschaft* (*social*) spheres of activity. I use Arendt's German term 'Gesellschaft' rather than her English choice 'social sphere' since the term 'social' has become laden with connotation in the more than six decades since the book was originally published. Then, I describe the modes of active life according to Arendt: *labour*, *work* and *action*—the domains of humans *qua animal laborans*, *homo faber* and *zōon politikon*, respectively. These three domains and their archetypal performers are presented in their pure forms to illustrate dynamics between them (i.e. the domination of *homo faber* over *zōon politikon* through the mechanisation of politics and the eventual displacement of *(craft)work* through *labour* in modernity) and not as roles for individuals to play. Instead, they should be understood as configurations of mutually constitutive and guaranteeing aspects of *active life*.

Arendt leverages a method of etymological distinction to convey her message, frequently taking her queues from nuances in historical language use, e.g. *laborare* and *operare* as evidence for a latent separateness of labour and work (Arendt, 1958/2018, p. 80). By ontologically separating areas of active life and juxtaposing them in opposition with each other together with historical fragments and examples, they illustrate each other.

3.5.1 Spheres of existence: Public, private and social

Modernity according to Arendt is marked by a dissolution of boundaries between the *spheres* of human existence: *private*, *public*, and the modern *Gesellschaft* (the *social*), a hybridised sphere of collective private life marked by economic imperatives (Arendt, 1967/2020, pp. 49, 96). Again taking her point of departure in an analysis of language in use, Arendt points out that a communal sphere dedicated to satisfying collective or individual desires is noticeably absent from Athenian Greek language and thought (Bowring, 2011). How this hybridised sphere of existence came about in tandem with an inversion of the order of the categories of active life (labour, work and action) is the key analytical approach and central critique of modernity Arendt presents in *The Human Condition*.

The realm of the *private* is characterised by the necessities of life, such as family life, love, enjoyment, etc. It exists as a bounded, metaphorically "fenced off" (Arendt, 1967/2020, p. 91) area within a larger common space³⁰. Private ownership of this secluded space, where individuals are unpolitical, in turn frees them to venture out (into the *public sphere*) and take a political role by speaking and acting unencumbered by the necessities of life (Arendt, 1967/2020, p. 94). The Arendtian method of distinction becomes visible here, as the private realm (and inversely the public sphere) are only meaningful as delineations from one another. Far from devaluing the importance of the private realm, Arendt argues that it is fundamentally necessary to enable a performative politics, i.e. actively leaving the private to speak and act. Threatening the private in its integrity, e.g. by undermining a "right to privacy" (Arendt, 1967/2020, p. 104) and dissolving the boundaries between private and public, is subsequently also immanently threatening to the

³⁰ The topography of *public*, *private* and *social* spheres is at times confusing in Arendt's writings. Though it is compelling to think of the *private sphere* in terms of the household as bounded by the walls of the house, the equation of private concerns with nature itself means that the private sphere is actually the default *locus* of humanity. The *public sphere*, in contrast, depends entirely on artificial construction to "shield it from the forces of growth and decay" (Arendt, 1958/2018, p. 131) around it. I argue, therefore, that it makes sense, counterintuitively, to speak of 'withdrawing' into the public (from the necessities of the private) rather than the opposite.

public (Arendt, 1967/2020, p. 89). Hygiene of the private realm (the own 'four walls') is therefore a societal duty and failure to provide an area of respite deprives people, such as the homeless, from an ability to enter the public in a meaningful self-determined way (Hill, 2022). Debates about a *right to privacy* have re-emerged with vigour in the trail of platformisation (Wachter, 2017), as the scope of large platform providers' surveillance power becomes evident, linking this key aspect of Arendt's analysis to contemporary debate.

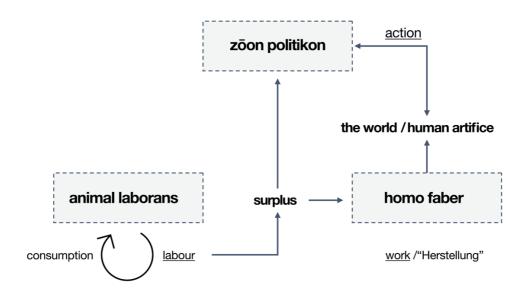
The public realm can be understood simultaneously as an idealised form of an Athenian polis (Bowring, 2011, p. 30) and as a "topography of things" resulting from the work of homo *faber* that is common and foundational to all public human activity (Bowring, 2011, p. 19). In its primary sense, the public sphere is the shared reality of a mutual encounter between a plurality of people, a "Gesehen- und Gehörtwerden" (being-seen and being-heard) (Arendt, 1967/2020, p. 84). Its material structure, the 'world of things', characterised by permanence and durability, functions as an organised remembrance, where the speech and action performed by free individuals is recorded and 'ossified' by being "transformed [...] into [...] records, documents, and monuments" (Arendt, 1958/2018, p. 95). It "gathers us together and yet prevents our falling over each other" (Arendt, 1958/2018, p. 52), providing the optimal conditions for individuals to exist in plurality. Arendt illustrates this using the image of the table around which people are seated. The table simultaneously separates and connects those around it, it provides both the necessary *shared* reality and the required distance to *perform* speech and action and be *observed* doing so. It prevents (private) closeness while providing the connective tissue for the public realm. The table itself-and all other 'artificial' institutions-is not an end in itself, but can facilitate action. It is constitutive of the world, which is the necessary condition for action (and by extension politics and human freedom) (Hill, 2022). Beyond physical objects, institutions can also form part of the "world of things", e.g. "die Mauer des Gesetzes" (Arendt, 1958/2018, p. 91, 1967/2020, p. 92). Richard Sennett (Sennett, 1977/2017, pp. 87, 340), taking his point of departure in Arendt's theory, succinctly defines the public sphere as "the forum in which it becomes meaningful to join with other persons without the compulsion to know them as persons". While Sennett draws his inspiration from 18th century European city life rather than Arendt's favoured Athenian polis, they both arrive at a *performative* understanding of self-actuation in the public sphere, which Sennett describes as "a rejection of the idea that behind the convention there lay an inner, hidden reality to which the convention referred and which was the 'real' meaning" (Sennett, 1977/2017,

p. 87). *Acting* in the public sphere attains the theatrical connotation of putting on a deliberate performance rather than revealing one's inner, natural self to an audience.

This balance between the *private* and the *public*, the spheres of *life itself* and *self-actuation*, respectively, was upended, according to Arendt, following the appearance of the logic of capital accumulation at the end of the 18th century (Arendt, 1967/2020, p. 96). As the economy expanded uncontrollably, the activities formerly bound to the private realm began migrating into the public, "functionalising" it and transforming it into a sphere dedicated to the satisfaction of our private needs and desires (d'Entreves, 2019, p. 11). Our obsession with the elements of private life led to the categorical collapse of *action* and *work* into *labour*, the central claim of Arendt's critique of modernity. The emergent hybrid sphere, hosting a counterintuitive public display of private matters, which Arendt calls the *social*, has drawn criticism in the academic literature³¹ for arguably denigrating the important society-sustaining aspects of carework (e.g. Arendt, 1967/2020, p. 103).

Figure 4

Tripartite configuration of human activity according to Arendt



³¹ For an overview of the criticism see Zalta et al. (2019, p. 12).

In the following subsections I provide a brief overview of the central categories and terminology of the *vita activa* and how they relate to each other (Figure 4) before laying out how their traditional order in the Athenian polis was upset in modernity. The three categories, *labour*, *work* and *action* (in German: *arbeiten*, *herstellen*, *handeln*) build on each other in the sense that *work* eases the pain of *labour* and in turn *action* depends on *work* to provide the material and immaterial structure for it to be performed (Arendt, 1958/2018, pp. 173, 236).

3.5.2 Labour: A state of nature

Arbeiten or labour, in Arendt's terms, is the most basic activity of vita activa in the sense of forming the foundation of an ontological hierarchy. Though it is the least of the three fundamental categories, it is indispensable as the quasi-biotic motor of life or, in Marx's term, the metabolism of humans and nature (Arendt, 1958/2018, p. 98). For Arendt, labour and consumption are two sides of the same coin, denoting human activity that is bound by necessity and not in possession of an *end* separable from a *means*, i.e. the only *end* of the labour process is to consume its products and continue it, making it in fact its beginning and the distinction meaningless. The labourer, the raw material and the 'object of consumption' blend and become 'mixed' in the labour process in contrast to the *craftsperson*, who "works upon" their raw material to produce a use object (Arendt, 1958/2018, p. 136). Arendt chooses labour as the point of departure in her anthropological exploration of the ontology of activity due to its ubiquity. Like nature, labour is unavoidable. It is the default fallback condition of humans, who are "always also a labouring creature" (my translation, Arendt, 1967/2020, p. 180), regardless of their being otherwise engaged in a higher form of activity or contemplation. When labouring, humans qua animal laborans are part of the animal kingdom, i.e. they lack the differentia specifica, the decisive difference of political life, that sets them apart from other beings.

Due to the discovery that labour generates a 'surplus' which can be exploited to (temporarily) free individuals from the necessities of nature, as was illustratively the case in ancient Athens, where 'free men' profited of slave and household labour to facilitate their ascending to the polis, labour became an unequally distributed affliction. The images of the household and the public square serve to illustrate Arendt's distinction between the *private*, where labour takes place, and the *public* sphere: if one is bound by tasks required for sustenance and consumption, which, by virtue of being *necessary*, overpower other activities, the faculties of *thinking*, *speaking* and *acting* cannot be exercised. Whether automated or not, *labour* remains an

anonymous process that contains no traces of the individual engaging in it or of its output. Labouring and consuming are therefore also the dominant activities of the *social sphere*, where private matters become quasi-public concerns, but which is devoid of the genuine plurality characteristic of a public realm (Arendt, 1958/2018, p. 112). In the *Human Condition*, Arendt sets out a decidedly normative perspective on labour, which, though necessary, must be curtailed to serve the higher activities of *speech*, *action* and *thinking*. A society absorbed in labouring and consuming succumbs to a "totally private way of life", an Epicurean fantasy of 'hiding' and 'carelessness' about common things (Arendt, 1958/2018, p. 113). This, as Arendt demonstrates in her later works, specifically her reports on the Eichmann Trials (Arendt, 1963/2006), is one of the conditions required for totalitarianism to fester.

The characteristics of labour are those of *nature* and *life* itself: perishability and cyclicality. Engaging in *labour* captures humanity in the rhythms of nature, e.g. farming and eating or earning wages and consuming. Labour should not be conflated with manual activity, and cannot be measured merely by the contents of an occupation. In fact, Arendt shows particular disdain for "labouring intellectuals" in bureaucratic apparatus (Arendt, 1967/2020, p. 126)³². The separation of work into tasks and processes is for Arendt an example of the labourisation of modern office work and the antithesis to professional specialisation (Arendt, 1958/2018, p. 123). Whereas task-work necessitates replaceable individuals, specialisation requires them to be different and complementary (Arendt, 1967/2020, p. 164). While Arendt's representation of labour (in contrast to specialisation) and *necessity* emerge as useful probes to differentiate labour from work.

3.5.3 Work: Constructing the world

Using her characteristic method of etymological distinction, Arendt expands her anthropocentric analysis of human activity to the activity of *Herstellen* or *work* (though the German term corresponds more closely to 'fabrication' or 'craft'), the domain of *homo faber*. The activity of *work* has a clearly separable *means* and *end*: homo faber "works upon" material with the purpose of creating a *use-object* conforming to a mental model (Arendt, 1958/2018, p. 140)

³² Arendt's disdain of bureaucracy and her awareness of the incredible danger inherent in it, when taken to its extremes, is heavily inspired by the writings of Kafka, who discovered that the principle of bureaucracy is *necessity* (see Arendt, 1944/1994).

that is added to the cumulative total *human artifice*. According to Arendt, the work process crystallises into the final product and imbues it with the values of *durability* and *stability* (in contrast to *consumability* and *perishability*). It constitutes a temporary removal of material from the natural world, shielding it from the forces of growth and decay. Despite invoking the image of the manual artisan to illustrate *homo faber's* values of *durability* and *permanence*, the material quality of the *thing* or *use-object* contributed to the world is not decisive for the differentiation between the outcomes of *labour* and *work*, as becomes evident in the case of state*craft* or *law* (Arendt, 1967/2020, p. 92). This *quasi-aesthetic* (Benhabib, 2020) understanding of work sees the products of a genuine work process, regardless of them being art, architecture or law, as containing the ideals and values of their maker.

In Arendt's theory, the values and modalities of the *work* process are imbued in the final product (Arendt, 1967/2020, p. 210)—a fact she recognises as being on the decline in her contemporary mid-twentieth-century society, which increasingly looked "at people as lasting longer than things" (McHale & Cordell McHale, 1975, p. 16). The products of the work process, designed to outlast their users, cumulatively form the *world* in which political action can take place. Their liberating and action-enabling qualities are two-fold: first, their *usability* (in contrast to *consumability*) momentarily frees the individual from the cycle of labouring and consuming that otherwise monopolises their capacity. In Arendt's view, the public sphere is therefore a "topography of things" that links individuals to each other and allows them to maintain a distance while isolating them (momentarily, until they return to their individual private spheres) from the necessities of life itself (Bowring, 2011, p. 19; Hill, 2022). Second, the *human artifice* represents the *narrative-mnemonic* dimension (Straßenberger, 2015) of the public sphere by allowing speech and action wielded to convince others' of a particular perspective to *ossify* into the *human artifice* itself, e.g. through works of art. In other words, the *things* of the world liberate immaterial *deeds* from the biological lifespan of their enactors.

As the manufactured artificial use-objects accrue, they create and stabilise the "topography of things" ('the world') which enables individuals to temporarily withdraw into the *public sphere* from their private concerns of labour and consumption, that would otherwise monopolise their attention (Bowring, 2011, p. 19)³³. *Craft*, understood as the activity of *homo faber*, is therefore

³³ This is a central aspect of Arendt's critique of labour theory. Since their proponents confuse or conflate the meansend hierarchy and their products are not oriented towards stabilising a communal infrastructure that hosts a plurality

fundamental to a functioning public sphere (Teerds, 2018). In this capacity, as 'architect', in addition to the *utility* inherent to the *use-objects* due to their being fashioned according to a mental model and imbued with the values of their maker, the *end* of homo faber's work process obtains additional outside *meaning* (i.e. a political function) that can, according to Arendt, only be the result of pluralistic action. The discovery that 'things' have a 'political role' is a central proposition of *The Human Condition*. To evaluate genuine *craft(work)* and distinguish it from labour, it is therefore necessary to examine both the creation (including the values of the creator) and the deployment of the use-object.

The insight that *use-objects* attain political significance by *carrying over* the values and modalities that shaped their crafting process constitutes a unique aspect of Arendt's theory (Arendt, 1967/2020, p. 210). How value-driven work is organised (and enabled or inhibited) is therefore a fundamentally political question, since the fabrication process is an enabling factor for genuine political action and constitutive of the public sphere (Teerds, 2018). Arendt is aligned with Marx in his observation that workers' identities and self-organisation are determined by the modalities of the production process. Using the factory as a mental lead image, she argues that *automation* increasingly leads to an *amalgamation of humans and technology* (like a snail and its house or a spider and its web) (Arendt, 1967/2020, p. 204). The idealised *workshop* of *homo faber* presents a contrasting image against the *factory* of *animal laborans*.

3.5.4 Action: Performing politics

Action is to Arendt the primary among the fundamental categories of the *vita activa* (Arendt, 1958/2018, p. 236) and it corresponds to the principle of *plurality*—of "being seen and being heard" (my translation, Arendt, 1967/2020, p. 129). In comparison to *labour* and *work*, therefore, which can be solitary, *action* can only ever be performed in the presence of others (Arendt, 1958/2018, p. 188). For Arendt, the capacity for action represents the *differentia specifica* of human beings (d'Entreves, 2019, p. 14), the one characteristic that distinguishes us from animals and any potential higher beings.

of individuals, subject-oriented theories of production (e.g. Marxism) result in an alienation of individuals from the *world* rather than from their means of production (Arendt, 1967/2020, p. 128).

Arendt's theory of action contains both communicative and agonistic-expressive tendencies (Mahrdt, 2022)³⁴. Action is expressed in the public realm through speech in the sense that we articulate our intention into the world to attain a certain effect while simultaneously speech is a mirror of action, since we judge the speaker based on their actions (d'Entreves, 2019, p. 18). Action begets action in the sense that it is only ever possible to "act in concert", when embedded in the "web of the acts and words of other[s]" (Arendt, 1958/2018, pp. 179, 188).

Through speech-acts, we can disclose who rather than what we are (Arendt, 1958/2018, pp. 178–179), weaving our narratives and *telling our story* of deeds and proclamations, analogous to the Greek desire to leave a mark in the world through politically-salient (in the sense of Machiavelli's virt \dot{u}^{35}) deeds that are worthy of remembrance. Action is intimately linked to natality, the capacity of humans to begin something anew (Arendt, 1958/2018, p. 9). Drawing on it as the analogy for the ultimate revelatory performance, Arendt describes action as "[...] like a second birth, in which we confirm [...] ourselves" and "insert ourselves into the human world" with "word and deed" (Arendt, 1958/2018, p. 176). The actor "identifies himself as the actor, announcing what he does, has done, and intends to do" through verbalisation (Arendt, 1958/2018, p. 179). Acting has no concrete 'result' or 'end' (Arendt, 1958/2018, p. 183), since it lies outside the means end relationship, in other words, while its intentions are based on opinion, its course can never be clear ahead of time and unfolds-uncontrollably-once action has been performed. It acquires its 'reality' only in the intangible "web" of human relationships (through recognition by others) (Arendt, 1958/2018, p. 191). The infrastructure to carry these actions beyond the fleeting shared moment between actors is the human artifice produced by homo faber, the world, which "materialises" (or ossifies) human storytelling (Arendt, 1967/2020, p. 130). Action therefore corresponds to the expressive, deliberative and narrative dimensions of the public realm, whereas work constitute its *mnemonic* aspects (Figure 3).

Ideas of invisible 'behind-the-scenes' actors, whether 'invisible hand', 'world spirit', 'class interest' or 'philosopher kings', are, according to Arendt, consequences of the same

³⁴ "Action and speech are surrounded by and in constant contact with the web of the acts and words of other[s]" (Arendt, 1958/2018, p. 188). This moving among "other acting beings" makes the actor both "doer' [...] and at the same time [...] sufferer" as "to do and to suffer are like opposite sides of the same coin" (Arendt, 1958/2018, p. 190).

³⁵ Virtù is a 'politics-first' rendering of the virtuous ideal. What is good for the integrity of the political body takes primacy over any other values, e.g. morals, honour, etc. (see Skinner, 2019, p. 56). Or, put differently, *good is what is political*.

corruption emanating from Plato (Arendt, 1958/2018, pp. 221–225), that is the desire to replace the uncertainty of action with the security and predictability of a latent superstructure (Arendt, 1958/2018, p. 185) or mechanistic Hobbesian 'Leviathan'-state.

3.5.5 Worldliness: The political life of things

The centrality of the concept of the world in Arendt's work is not immediately apparent, but a close reading reveals it to be the connecting tissue between all the principle forms of activity. In her typical liberal usage of terminology, Arendt strictly separates the world from the physical earth and its biotic overlay nature. The world is entirely human and artificial in quality (she coins the human artifice to describe it) and consists of the totality of fabricated things organised to resist the consumptive forces of life (and labour) (Arendt, 1961/2006b). The world provides a time-less (since it is not subject to the cycle of labour and consumption) "dwelling space" for humanity that is "more permanent and more stable than themselves" and regulates human plurality and interaction through separation and connection (Arendt, 1958/2018, p. 152). Humans are born into and die out of the world, which functions both as a form of shielding edifice (Arendt, 1967/2020, p. 180) and a mnemonic device, where humanity's speech and action can be preserved beyond the lifespan of an individual, thus protecting them from the cyclicality of life and imbuing transgenerational meaning on politics (Arendt, 1967/2020, p. 132). Arendt fondly uses the image of a table, which, designed and built to outlast its creator and its users, simultaneously physically connects those seated around it and keeps them at a distance (Arendt, 1967/2020, pp. 78, 86). Though, I would argue, the somewhat coercive arrangement dictated by the table does not adequately represent the kind of spontaneously formed public realm described in her later writings (e.g. Arendt, 1961/2006a, pp. 3–6). The world is made up of all *things* produced by *homo faber* (humanity's productive mode of being) through work. A striking and original aspect of Arendt's political theory is the political role she ascribes to *things* in their capacity of a) regulating the public sphere by joining and dividing its participants and b) in their mnemonic function of ossifying the deeds and speech of women and men (Straßenberger, 2015). This becomes more intuitive when considering that Arendt included immaterial things in her conception, such as "the edifice of law" (my translation Arendt, 1967/2020, p. 92).

For Arendt, the world gains its objectivity through what has been dubbed "standpoint epistemology". It "comes into being only if there are perspectives; it exists as the order of worldly things only if it is viewed, now this way, now that, at any given time" (Bowring, 2011, pp. 2, 27).

Apart from reaffirming the centrality of plurality to her political theory (as the precondition for exchange), this notion of the public sphere as a "space of appearances" emphasise both the associational-communicative and agonistic-expressive aspects of political action, the theatrical masking-up and stepping into the public arena (Arendt, 1977/1981, pp. 20–21).

3.5.6 The decay of political life in modernity

To understand and operationalise the framework of the *vita activa* that informs this thesis, it is important to consider how the active is anchored in the contemplative. This relationship adds the crucial teleological layer of *why* to Arendt's analysis of *how* active life is configured:

Only when the vita activa had lost its point of reference in the vita contemplativa could it become active life in the full sense of the word; and only because this active life remained bound to life as its only point of reference could life as such, the laboring metabolism of man with nature, become active and unfold its entire fertility. (Arendt, 1958/2018, p. 320)

By clearing the mist of confusion sown by the *grand tradition* of Western philosophical thought, Arendt shows us in the course of *The Human Condition* that by turning onto itself, *active life* has become destabilised and its quasi-biotic motor—labour—dominant. The result is a society of *jobholders* characterised by necessity and occupied entirely with itself through every-increasing consumption, which is antithetical to political freedom (Arendt, 1967/2020, p. 309). Reclaiming a vantage point outside life itself, through *thought*, is necessary to ensure the cohesion of any future *active life*, where the balance of labour, work and action may have been restored. In a destabilised world, marked by "Gedankenlosigkeit"³⁶ (Arendt, 1963/2010, p. 57), i.e. distanced not from ability or cognition but capacity to think meaningfully, the constant threat of totalitarianism looms.

Central to Arendt's understanding of political action is the ability to attempt to convince another of one's own standpoint in the world, in other words, to compel them to view the world from another angle. What Arendt attempts in the *vita activa* is just that: to "sample the strangeness" of contemporary (in the 1950s) life and then "de-familiarising" it to a degree where we can analyse it from an external vantage point (Bowring, 2011, p. 40). Through a process initiated by Cartesian doubt, Arendt claims, the traditional hierarchy of contemplation and activity

³⁶ Arendt's chosen English equivalent "thoughtlessness", meaning forgetfulness or neglect, does not capture the full meaning of the German term (Arendt, 1963/2006, p. xxiii).

was reversed, since truth could no longer be counted on to reveal itself through mental activity (Bowring, 2011, p. 56). What followed this initial impulse was a chain of ontological reversals in the hierarchy of activity itself. Homo faber and inherently predictable fabrication stepped up to fill the void of uncertainty left by this initial break within the order of activity. Exemplified by Hobbes' Leviathan, the notion that social order and politics could be engineered and mechanised provided a metaphorical safety blanket for humanity (Runciman, 2020b). Capitalism itself soon replaced the highest principle of "utility", the core of homo faber's world-building activity, with "happiness" (Arendt, 1958/2018, p. 312). This philosophy, represented by Bentham's utilitarianism, paved the way for the final upset of the order of the polis and the rise of labour and consumption to become the principles of modern society. Now pursuing quasi-biotic ends (consumption and happiness), the long-termism characterising the world gave way to an expansion of this new form of coexistence, the social sphere or Gesellschaft, that is communal but driven by individualistic concerns. Politics itself, in this new order, merely served the "satisfaction of individual preferences" (d'Entreves, 2019, p. 5). This newly imbalanced human condition is succinctly described by Magda and John McHale in a 1975 report on the "outer bounds" of human development:

The value of objects and human relationships to material goods is subtly altered. Where, in previous societies, survival value resided in goods and property as enduring beyond the individual life span, things were unique and the person expendable. With our developed capacities to produce material goods beyond sufficiency, things are expendable and the person is unique. For the first time in history we look at people as lasting longer than things. Value resides only in the human. (McHale & Cordell McHale, 1975, p. 16)

In Arendt's analysis the victory and rise of *animal laborans* and its associated values of "life, productivity and abundance" displace the characteristics of political action and speech, "freedom, plurality, solidarity" from the world (d'Entreves, 2019, p. 9). When she deals with these categories, she treats them not as archetypal reductions or models of humanity, but as *Urphänomene* in the Heideggerian sense. There is no individual or pure-form *homo faber, animal laborans* and *zōon politikon* in modernity (and neither in classical antiquity), only configurations thereof in the sense of traits common to humanity itself that can be skewed in individuals or (as a trend) in society itself (Patchen, 2011).

But a redeeming note also reverberates through Arendt's work³⁷. It has been argued to contain the grains of a normative ethical mode of ecological living (as compared to ecological thinking) by establishing and maintaining an balanced configuration of the three basic dimensions of activity (Whiteside, 1994).

3.5.7 Technology & the vita activa

Technology plays a central role in the Human Condition in the form of two technological transitions, which Arendt identifies and characterises according to their impact on the configuration of active life in modernity. The first is the increasing "automation" of human activity, brought about by the invention of the steam engine and intensified by the discovery of electricity. This mechanistic view of technology as "mute robots" devised by *homo faber* to ease the toil of *animal laborans* (Arendt, 1958/2018, p. 124) reached its "culminating point" where "monitoring and control tasks" are increasingly taken on by machines rather than humans (Arendt, 1958/2018, p. 149, Footnote 12). To Arendt, these robots and computers are *natural* insofar as their sole purpose is to "liberate" humanity from the necessity of labour only to deliver it into the false freedom of unshackled consumption. Understood in this way, automation is the magnification and intensification of the "rhythm of life" (Arendt, 1958/2018, p. 132). The result is a "channeling [of] natural forces into the world of the human artifice", meaning the *labourisation* of production and the gradual removal of the values of homo faber (stability, durability and permanence) from the world (Arendt, 1958/2018, p. 150).

The second is the emergence of new futuristic technologies with the power to destabilise humanities relationship with their earthly (i.e. natural) surroundings (Szerszynski, 2003). Examples of these "atomic age" developments (Arendt, 1958/2018, p. 149) are, on the macroscale, space travel, the creation of "new heavenly bodies", and, on the micro-scale, biotechnology, which allows humans to "act into nature" with consequences that are impossible to oversee (Arendt, 1958/2018, pp. 231, 269). In combination, technology in Arendt's conception has both a corruptive influence in the form of "newly invented electronic machines", which are, "like all machines, mere substitutes and artificial improvers of human labor power" (Arendt, 1958/2018, p. 172) and a spontaneous expression in emergent "future technology", which "channel[s] the

³⁷ Paul Mason fittingly describes Arendt as a "theorist of 'what's gone wrong and how should humans live [...]" rather than of "what's happening and why?" (Mason, 2019)

universal forces of the cosmos around us into the nature of the earth" (Arendt, 1958/2018, p. 150). This "unharnessing" of increasingly unpredictable technologies and applying them onto life itself has been interpreted in the literature as a hybrid form of labour and action (Szerszynski, 2003), providing a possible indication as to a form of *action* native to post-modernity. Technology is thereby both stunting and expanding *natality*.

Neither view of technology is particularly well-developed in the *Human Condition*. The primary form, *automation*, is frequently levied by Arendt through her method of differentiation as an illustration of the expansion of labour into all aspects of active life and a gradual harmonisation of active life to the rhythm of the machines (Arendt, 1958/2018, p. 132). She employs maximalist language to describe this mechanical threat, describing it as "mute robots" and "gigantic bureaucratic machines" with the power to "reproduce daily all things [humanity] wished to consume" (Arendt, 1958/2018, pp. 93, 124, 132). This understanding of technology bears little resemblance to today's variants, which are neither room-sized computing machines nor threatening outer-space satellites but operate stealthily from within our pockets (Runciman, 2020a). Despite referencing the "highly non-respectable literature of science fiction (to which, unfortunately, nobody yet has paid the attention it deserves [...])" (Arendt, 1958/2018, p. 2), Arendt demonstrated a lack of imagination in her own vision of future technology as to how it may affect daily life itself.

What Arendt did not anticipate in her analysis (and, arguably, failed to recognise in her own time) is how economics, technology and politics form an inseparable complex, with each domain structuring the others (Schwan, 2020; Szerszynski, 2003). The monetisation of behaviour through the surveillance of day-to-day technology use and consumption decisions, such as making sustainable or politically motivated choices, are in-between behaviours hard to characterise using the categories of the vita activa, an issue I address during the course of this dissertation.

3.6 Using the *vita activa* as an analytical framework

Arendt's *vita activa* offers a unique perspective on two fundamental aspects of platformisation. The first is its ubiquity: since platforms as entanglements of technology and humanity are today omnipresent, touching on almost all areas of life, they should be understood as phenomena of active life and analysed as such. The second is a deeper, normative perspective. Through her analysis of Attic Democracy, Arendt furnishes us with a set of "anthropologically grounded [...] categories" (Bowring, 2011, p. 1) which we can use to examine and challenge

gainful employment and political action in our contemporary society. Existing attempts at leveraging her concepts in the academic literature on platformisation have significant shortcomings, which I outline below before introducing the analytical framework based on the *vita activa* employed in this dissertation.

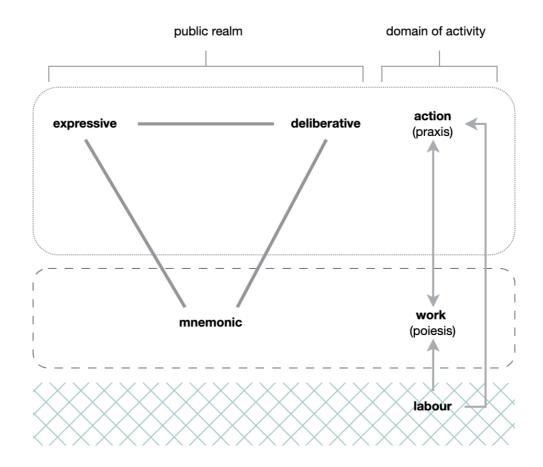
First, as platformisation encroaches on and monetises all of our experiences, as is argued by the proponents group 4.) in the literature and of *surveillance capitalism* especially, the case can be made for an accelerated—and highly destructive—'labourisation of all'. This view sees all human activity through the perspective of labour as means to the economical end of amassing capital. Platformisation is also increasingly portrayed in language that evokes association with totalitarian or imperialist qualities (e.g. Jin, 2013; Zuboff, 2019b). However, this view is somewhat limited by the strict economic framing, which evaluates platformisation in terms of its financial benefits for the platform providers (e.g. Zuboff, 2019b, p. 11). Despite drawing on Arendtian language, it misses the crucial connection between changes to the modalities of work and labour and political life. Alongside the concentration of capital with certain entities, reconfigurations of work and labour run the risk of promoting *world-alienation*, which, according to Arendt, has been the bedrock of totalitarianism.

Similarly, the literature using the Arendtian distinction between labour and work to compartmentalise *platformised* activity (e.g. Márton & Ekbia, 2021) truncates the argument by leaving the *action* dimension of the *vita activa* unaccounted for. Inversely, studies of political movements on digital platforms (e.g. Schwarz, 2014) have focused on the performative *action* dimension and concluded that the 'virtual realm' lacks the permanent structures required for a public sphere and political life to be constituted, but do not treat *platformisation* as a transformative process affecting all swathes of life. Both approaches fall short by failing to take the appropriately integrative perspective demanded by the theoretical framework they draw on. Calls to remedy this and for intensifying research into the political implications of contemporary work by examining its links with action have recently been made (e.g. Fayard, 2021, p. 217), highlighting how the *vita activa* can serve as a connecting factor between the existing literature and new empirical research.

By combining the core concepts of the *public realm* and the *domains of activity* into a unified analytical framework (Figure 5), the *vita activa* can be marshalled to evaluate platformisation in terms of its impact on political life, complementing existing perspectives in the literature.

Figure 5

The vita activa



To operationalise the *vita activa* two trains of Arendt's thought, the qualities of the public realm and the basic activities that make up the human condition, must be connected. For political life to be performed, agonistic expression and deliberation (*praxis*) must be supported by a mnemotechnical device—the human artifice (*poiesis*)—which is indicated by the dotted line. *Labour* is represented in the model as forming the foundation but ultimately lying outside *political life*. When the balance of activity is skewed towards labour, we experience the collective *world-alienation* that Arendt thought was the hallmark of her times (Arendt, 1958/2018, p. 254). Herein lies the core discovery of the *vita activa*—the idea that a value-driven work process acts as a 'cushion' of sorts to support they type of activity typical of the Attic polis. The top square represents the continuous *discord* between free individuals, contesting with each other to convince and influence the prevalent political opinion. The lower square symbolises how political action both forms and is regulated and supported by the human artifice, i.e. the products of work and the '*metabolic products*' (Arendt, 1958/2018, p. 98) of labour.

What the model allows for is extending any analysis focused on the domains of activity (e.g. how *platformisation* affects the conditions of work) towards its implications for the stability of the public realm. By formalising these two trains of thought in Arendt's theory and combining them into a single model, I provided a useful analytical framework for evaluating empirical research into transformative technology, such as *platformisation*.

4 Studying the human condition on digital platforms

Having established that the existing platformisation literature identifies but fails to adequately address the totalitarian qualities of digital platforms, and following my introduction of Arendt's *vita activa* as a suitable framework for an analysis of the effects of platformisation on active and political life, I proceed to define the research questions and outline the abductive mixed-methods research design used to address them.

Exploring the political implications of platformisation requires establishing a bridge between the Arendtian theoretical framework and empirical insights into the experience of platformised labour and work. The *exploratory abductive research strategy* presented in this chapter allows for this dialogue between theoretical knowledge and observation to take place. By drawing on innovative methods, this research contributes important and novel perspectives on platformisation to the literature, advancing the understanding of this central phenomenon in IS research and beyond.

4.1 Research questions

This dissertation engages with the platformisation literature where it leaves off. Having identified transformational and, in some cases, proto-totalitarian qualities of digital platforms, many seem content to close the loop by arguing that these developments are representative of a particularly pervasive form of capitalist exploitation. Heeding Arendt's warnings about the technologisation of work (Arendt, 1958/2018, p. 132), I argue that these perspectives miss the potential implications of such fundamental changes to the way we labour and work beyond capital accumulation and attempt to carry the argument one step further by proposing *political life*, the fragile constellation of labour, work and action underpinning the public realm, as the subject of this inquiry. According to Arendt, our capacity for political action (*expression* and *communication*) is rooted in the configuration of work and labour that constitutes the *mnemonic* dimension of the public realm (see Figure 3). Put differently, changes to the way we work affect our political freedom as well as our economic situation. Therefore, to grasp the transformative impact of platformisation in its entirety it must be analysed in terms of its impact on all three dimensions of human activity. I propose two research questions to guide this inquiry:

The first question: How does platformisation affect labour, work and action?

The second question: How can platformisation redeem political life?

The questions build on each other in the sense that the insights generated by the analyses addressing the first question form the input for answering the second question as per the analytical framework proposed in the previous chapter (Chapter 3.6). Studying how changes to the configuration of human activity (labour, work and action) are linked to the structural integrity of the public realm (see Figure 5) thereby allows for inferences about the impact of platformisation on political life or its negative counterpart totalitarianism to be made.

The choice of wording in the research questions is deliberate, and I understand the verb 'to redeem' to mean "to regain" or "recover (an immaterial thing)" ('Redeem, v.', 2009), stressing the fact that this dissertation approaches the phenomenon of platformisation without applying foregone conclusions to demonstrate both the conditions enabling and inhibiting political life on digital platforms. It also emphasises the normative dimension of the *vita activa* in the way it can uncover the qualities of platformisation that advance political life, which can be translated into prescriptions about how platforms *ought* to be designed or governed. To address the research questions in a *plausible* fashion, I draw on mixed qualitative and quantitative data sources in the course of three analyses before integrating the findings and prior knowledge from the literature.

The research presented in this dissertation takes the shape of a 'back and forth movement' between theory and empirical data to make sense of a complex phenomenon (Wodak, 2004 as cited in Mantere & Ketokivi, 2013, pp. 81–82). Since platformisation touches multiple areas of life, an analysis focusing on one empirical setting only is insufficient to grasp it in its entirety, which necessitates noting contrasting dynamics in different contexts. Further, deducing and testing claims from the existing literature cannot yield novel insights beyond the established understanding, which fails to take into account the implications for political life. In contrast to deductive or inductive inquiry, abduction is a generative process that reflects the real-life setting of contemporary social research. Therefore, I employ abductive reasoning, a combinatory approach drawing on previous insights and emergent empirical observations, which is increasingly established as a pragmatic research strategy in organisational studies and the wider social sciences (Mantere & Ketokivi, 2013; Sætre & Van de Ven, 2021).

In the following sections, I outline *pragmatism* as the epistemological foundation appropriate for this form of mixed-methods research and give an account of the abductive reasoning I undertake and of the research process informed by it.

4.2 Pragmatism

To underpin the research design, I briefly introduce pragmatism, in particular Dewey's democratic-populist flavour (Ormerod, 2006), as the epistemology and theoretical perspective of this inquiry (Crotty, 1998, pp. 3–4), and justify its compatibility with Arendt's body of theory introduced in the previous chapter. My intention here is to demonstrate how pragmatist inquiry facilitates applying Arendtian theory as a perspective without the need to fully emulate her method or, put differently, that there are no obstacles to adopting an Arendtian worldview when conducting a study based on pragmatist abductive reasoning.

Pragmatist epistemology shuns the quest for *knowledge* per se, favouring instead the process of *inquiry* or 'knowledge-seeking'³⁸. The situation under study is itself "objectively indeterminate" and only constructed as part of the inquiry process (Legg & Hookway, 2021, p. 19). Pragmatism maintains a view of scientific inquiry as *primus inter pares*, affording it an elevated role as an access mechanism to the systematic connections between phenomena (Ormerod, 2006, p. 903). According to Dewey, inquiry involves departing from a 'problem' towards "the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole" (1938/1986, p. 108), i.e. a profound understanding of the situation otherwise hidden. The methodological principle derived from pragmatism is that "the analysis of meanings (of signs, i.e., ideas, concepts, statements) is an analysis of certain kinds of action in certain contexts" (Thayer, 1968 cited in Crotty, 1998, p. 86). Following a *pragmatic* approach, this dissertation takes its point of departure in an interesting and puzzling phenomenon or 'hunch' (the way the platformisation of work is presented in the academic literature compared to its lived experience) and iteratively engages in pattern recognition and sense making or 'discovery' and

³⁸ This philosophical worldview is aligned with that of Karl Jaspers, an influential figure in Arendt's personal and academic life, who argued that "philosophy means: being on the way. [...] The *search* for truth, not the *possession* of truth is the true character of philosophy" and that in philosophy "the question is of more importance than the answer, and every answer becomes a new question" (my own translation of Jaspers, 1953/1989, p. 13). I read Arendt's work in this way as a progression towards understanding the traumatic events of totalitarianism and guarding against them, rather than a collection of concepts that, if diligently threaded together, reveal a hidden system.

'justification', running ever wider circles around the original interest and drawing an increasing number of empirical and theoretical resources into the inquiry. The data analysed as part of the inquiry, occupational histories and instances of communication on digital platforms, are understood as the outcomes of actions, symbolising their 'meaning' or 'utility' (Lindberg, 2020, p. 92). Pragmatism, with its focus on "what works" rather than the discovery of independent "truth" or "reality" (Teddlie & Tashakkori, 2009, p. 14), has further been suggested as the epistemological paradigm best suited to mixed-methods studies, such as this dissertation (Venkatesh et al., 2013). It is therefore appropriate to address the two research questions which themselves follow a trajectory from the fundamentally exploratory and descriptive (the first question) to an integration of the inferences made to form a larger picture of platformisation and political life (the second question).

Arendt's epistemological perspective at the time of writing the *The Human Condition*, i.e. taking into account the evolution of her ideas towards her later writings, has been described as a *hermeneutic phenomenology of the political*, a view inspired by Heidegger but expanded by a radical commitment to pluralism ('being-in-the-world' vs. 'being-in-the-world-with-others') (Borren, 2013; Straßenberger, 2015, p. 146). Pragmatism aligns with this approach in multiple ways. First, both views exhibit a preoccupation with *praxis* as inherently social and pluralistic, i.e. the consideration of speech and action as elevated human activities, which form the *pragmagrammatical* dimension of political life, corresponding to the *expression* and *communication* in the public realm (see Figure 5). Second, epistemological fallibilism, the notion that no knowledge claim is immune from all possible criticism and revision inherent to Dewey's pragmatism (Ormerod, 2006, p. 901), is echoed by Arendt (e.g. Arendt, 1967/2006). Rather than "naively conceiving of language and thought as 'mirroring' the world" (Legg & Hookway, 2021, p. 2), truth is revealed only by being enacted and deliberated between a plurality of individuals. In other words, activity and not 'ideal types' are the source of knowledge for both Arendt's hermeneutic phenomenology and pragmatism.

The traces and conversations left by individuals on communication platforms, which this inquiry draws on as data, can be understood as their ossified speech-action, revealing their experiences. A pragmatist approach is therefore well suited to studying the arena of public life—the Arendtian 'space of appearances'—where speech and action are rendered into their political meanings and then melted into the politically vibrant human artifice.

A third similarity is found in the rejection of Cartesian First Philosophy (Pfeiffer, 2003), whereby both views instead draw methodologically on idea-historical 'genetic analysis' of ideas throughout history and institutions (Ormerod, 2006, p. 901).

However, Arendt was not a pragmatist. This is particularly evident in her differentiation between human activity that is *action* and that which is not, i.e. *labour* and *work*. The latter types of activity are expressible in terms of the *means-end* relationship whereas political action itself is explicitly not (Arendt, 1958/2018, p. 183). In pragmatism, everything is action, whereas for Arendt action has a very particular, *political* connotation. This incompatibility traces back to her method of clear analytical (and etymological) distinction between fundamental concepts based on an ontology, an approach that is counterintuitive to pragmatic inquiry (Lindberg, 2020, p. 107). Arendt's primary concern was to investigate the "political implications of our worldly existence" or, in other words, the political phenomena that are produced by human action "among men, things and relationships" (Borren, 2013, p. 232). To achieve this, Arendt laid out the first principles of our worldly existence-the ontology of human activity-from a mosaic of historical fragments. This dissertation does not attempt to emulate the Arendtian method but instead takes its departure in her foundational ontological work, the assumption that all human activity is either *labour, work* or *action* guided by contemplation, to launch an inquiry into the political salience of a contemporary and potentially transformative technological development. The iterative mutual reframing of theoretical understanding and empirical patterns of a pragmatist inquiry is well suited for this purpose. My aim in this dissertation is to flag the implications of platformisation for political life by "tell[ing] a 'story' that makes sense of the data at hand" in a way that, after hearing it, the reader might have a different perspective of the phenomenon under study (Lindberg, 2020, pp. 95–96). I do not, however, consider myself a 'strict pragmatist' (Pfeiffer, 2003), since I follow Arendt in her ontological separation of action from other forms of human activity and contemplation.

4.3 Abductive reasoning

The principle of abductive reasoning is "inference to the best explanation" (Harman, 1965, p. 88) through a generative process of "turning 'surprising facts' into matters of course" (Mantere & Ketokivi, 2013, p. 72). This iterative process, which has been described as "reflexive narrative" (Mantere & Ketokivi, 2013, p. 82) demands a dialogue between the researcher's preunderstandings, the empirical data and, if warranted, peers (Sætre & Van de Ven, 2021). In

practice, it involves departing from an unexplained phenomenon into a generative process of "creating and evaluating explanations" through empirical analysis until a plausible conjecture of evidence and theory emerges (Table 1 in Sætre & Van de Ven, 2021). When "anomalies" or "discrepant findings" are encountered along the way, a "new and plausible explanation" is sought to "restor[e] theoretical coherence in light of empirical reality" (Bamberger, 2018, p. 6). Sætre & Van de Ven suggest that generative abductive inquiry follows four steps: I) *observing* an anomaly, II) *confirming* the anomaly, III) *developing* hunches and IV) *evaluating* the hunches (Sætre & Van de Ven, 2021, p. 6). Though the steps are logically sequential, they can take place in a reflexive and iterative manner, meaning they are not necessarily chronologically sequential. Once the abductive process is concluded, the emergent theoretical understanding is released for further deductive and inductive inquiry (Sætre & Van de Ven, 2021, p. 8).

Assessing the quality of abductive inquiry mandates a different approach compared to deductive and inductive reasoning. Mantere & Ketokivi (2013, p. 81) recommend "compliance to local principles in selecting between alternatives" as the key criterion to evaluate the success of abductive reasoning, alongside the overall "credibility" of the resulting conjecture. Since abductive inquiry relies on 'hunches', "plausibility is a substitute for validity" (Weick, 1989, p. 525) when evaluating whether a conjecture reveals 'interesting' aspects and should be retained or if it is absurd and should be dropped.

Finally, since abductive inquiries are grounded on pragmatism rather than positivism (Bamberger, 2018, p. 6), a detailed account of the procedure is required to establish their 'plausibility' and credibility. In the following section, I outline the key insights and decisions that drove this inquiry into platformisation.

4.3.1 Research process

This section, taking a more narrative tone than the rest of this chapter, outlines my research process and experience, elaborating the abductive iterations and highlighting major stages in the development of the central thesis. It also illustrates how the ideas represented in this dissertation grew organically over the course of multiple years. A defining characteristic of pragmatist inquiry and abduction is the notion that truth is the long-term convergence of opinion (Ormerod, 2006, p. 898). James described this iterative process as starting out with a "stock of old opinions" onto which, when they are contradicted, a new idea is "graft[ed] [...] with a minimum of disturbance of the latter, some idea that mediates between the stock and the new experience and runs them

into one another most felicitously and expediently" (1907/1922, pp. 59–60). In this case, *settling into* the opinion that the Arendtian concepts making up the *vita activa* (Figure 5) provide a convincing explanation of how platforms simultaneously facilitate and inhibit political life was the result of six abductive steps (Table 2). The monograph itself is structured as a "complex traditional thesis" (Paltridge & Starfield, 2007, p. 68), i.e. consisting of an overarching literature review, theoretical framework and problem statement, followed by three analyses (1.–3.) examining two distinct contexts of platformisation, work life (A) and the generation of factual knowledge (B) (Table 2).

This dissertation is the culmination of various research projects on digital labour begun at the Department of Digitalization at Copenhagen Business School between 2020 and 2022 as well as research on journalistic intermediation in online communities undertaken in 2022 at the Weizenbaum Institute for the Networked Society in Berlin. I was further able to draw on qualitative research into the gig economy in Kenya that I conducted during my Master's degree at the Oxford Internet Institute, which provided the spark of interest in the topic of platformisation and furnished me with a foundation of social theory to derive my initial understanding of the phenomenon. Taking inspiration and receiving guidance from numerous colleagues throughout my formative academic years, I consider this to be multidisciplinary work closely aligned to the fields of IS research, organisation studies and economic sociology. In parallel to conducting the empirical studies, I rekindled my interest in Arendt's writings, and was able to study her work indepth over the past years. Only gradually did the empirical findings coalesce around Arendtian theory, which now holds them tightly in place. The centrality of Arendt's theoretical lens for this inquiry was not determined from the onset but became apparent when I found it to provide a plausible path to reconcile divergent empirical findings with one another that previous views of platformisation from the academic literature do not offer.

The research forming the basis of the (chronologically) first case, an analysis of workers' discourse on online communication platforms, was initially conducted exploratively, acting on a perceived tension between the way platformisation was described in the literature and my previous experiences interviewing platform workers. Furnished with an understanding of platform-facilitated online labour markets as 'signalling environments' (e.g. Lehdonvirta et al., 2019) and having interacted first-hand with numerous platform workers during field work in Kenya in 2019, I departed into the inquiry with a strong interest into how platformisation was shaping the 'future of work'. This is reflected in my choice of methods, which, inspired by an interesting phenomenon

(the transformation of work through platformisation), analyse digital trace data for patterns revealing insights about this experience.

The notion that "patterns often emerge before the reasons for them are apparent" (Participant quoted in Dhar & Chou, 2001, p. 907) played a central role in my research process, which relied on such "computationally generated [...] patterns" to inform the initial "working hypothes[es]" (Lindberg, 2020, p. 94). What emerged from the initial iteration was the realisation that the underlying transformation of work was profound and a radical departure from existing types of work. Finding a suitable analytical framework in Arendt's The Human Condition, I engaged in the second cycle with a view to validating the notion that platformisation was 'labourising' our work experience. Coming upon evidence supporting this assumption in my analysis of workers' occupational trajectories leading up to their work in the platform economy, I prepared for a third iteration in a different context, the co-creation and validation of factual knowledge by OSIN/T communities on online platforms, that, according to my previous insights, should also be affected by 'labourisation' and covers an important area of political life according to Arendt. It rapidly became apparent that the third case did not correspond to the previously identified pattern, representing a "breakdown" between theory and findings (Alvesson & Kärreman, 2007; Lindberg, 2020, pp. 93–94) that contradicted my previously held opinion (James, 1907/1922, p. 59), thus providing a contesting perspective from which the final thesis, of the dual nature of platformisation as promoting and inhibiting of political life, was developed. Only when the final piece had fallen into place, was the original situation converted into Dewey's 'unified whole'. In this case, a plausible theoretical understanding of platformisation and its dualistic promotive-inhibitive effect on political life that could be 'released' for further research (Sætre & Van de Ven, 2021, p. 8).

In the next sections, I present on a more granular level the individual research methods, which data sources I drew on and, in the form of a research protocol, the steps taken in each of the analyses. I also expand on the sampling strategy informing the choices and order of the analyses.

Table 2

Step	Empirical setting	Method / analysis	Data	Insight / hunch	Evaluation
Observation (I)	A: Knowledge of the field from previous research	Literature review	Academic literature on platformisation; Arendtian theory; insights from previous research	Platformisation is negatively transforming the way we work through 'labourisation'	-
Observation (I)	A: Gig workers' support communities	1.) Topic modelling and interpretation	i.) Workers' discourse from Reddit	Evidence in support of ,labourisation'	Collaborative assessment (N=5)
Confirmation (II)	A: Gig workers' life courses	2.) Sequence analysis, clustering and logistic regression	ii.) Longitudinal household panel data from the UKHLS	Evidence in support of 'labourisation'	Credibility of interpretation; dialogical research process (N=3)
Confirmation (II)	B: OSIN/T communities	3.) Qualitative content analysis	iii.) OSIN/T discourse from Discord	No evidence in support of ,labourisation'; anomalous findings 4	Dialogical research process (N=2)
Development (III)	-	-	-	Conjecture; duality of platformisation as ,labourising' and enabling work-action	-
Evaluation (IV)	A/B	Meta- inference	-	-	Plausibility

Abductive research process

Note. \mathbf{t} = "breakdown" between theory and empirical observations (Alvesson & Kärreman, 2007; Lindberg, 2020, pp. 93–94). A = the platformisation of work life. B = the platformisation of factual knowledge creation and verification.

4.3.2 Research methods and sampling strategy

The selection and order of analyses in this inquiry are the result of *exploratory abduction*, i.e. attempting to achieve a plausible conjecture of puzzling insights by contrasting, comparing and reconfiguring analyses and theory (Bamberger, 2018, p. 4). To identify the data sources and appropriate methods, I followed a process of iteratively collecting and analysing data to then decide where to turn next to find further contrasting or complementary data based on the gained insights, usually referred to as 'theoretical sampling'. As Glaser & Strauss (1967/2006, p. 45) put it, the "process of data collection is controlled" by an emerging or improved theoretical understanding rather than an outside influence. It cannot be predetermined because the direction of the research only reveals itself as part of the act of research itself. Starting with a "general sociological perspective" and knowledge of a "problem area" (what in abductive inquiry might be referred to as 'hunches'), data collection is initiated not to fulfil any preconceived theoretical sampling conditions but to explore the relationship between previous knowledge and emerging empirical evidence (Glaser & Strauss, 1967/2006, p. 45). Further selection is then guided by the criterion of 'theoretical relevance' as existing understanding begins to coalesce with findings and analytical targets crystallise. After each analysis, the questions are asked where to turn next and *for what purpose?*

In this inquiry, each of the empirical settings concerned a platformised instance of 'humans-in-activity'—i.e. how labour, work or action are performed on, with and through platforms—and the methods chosen were all observational. In chronological order, I began with an analysis of textual conversational data from remote gig workers communities on Reddit, i.), and proceeded from there to an analysis of the *work life courses* of individuals working in the UK captured by a longitudinal household panel survey, ii.). My sampling rational was to complement the insights gained from the conversational data—how workers discuss their *remote* gig work experiences—by broadening the context to include other forms of *local* gig economy work. I realised following the second analysis that the narrative was more insightful when presented in reverse, moving from the broad context and general insights of ii.) to a particularly salient form of remote gig workers' reported experiences in i.). In the following chapter, I present the findings in this revised order. I chose the third analytical context, textual conversational data from amateur OSIN/T communities, to bolster the emerging theoretical understanding I had formed so far under the assumption that even in the absence of a clear profit motive platformisation would affect the

configuration of activity. The anomalous findings resulting from this stage of the inquiry then prompted me to restructure the overall theoretical narrative. I completed the sampling process at this stage, since the collected data provided sufficient insights into the contrasting dynamics of platformisation to construct a compelling and plausible narrative.

The data from all three contexts were analysed using distinct methods and research strategies integrated in a mixed-method research design (Creswell & Creswell, 2018b; Venkatesh et al., 2013). The first analysis draws on a quantitative topic model followed by a close qualitative reading of the documents sorted according to the identified latent thematic structure. It can therefore be categorised as adhering to a sequential *quantitative* \rightarrow *qualitative* research strategy. The second analysis draws solely on a *quantitative* research strategy consisting of social sequence analysis followed by cluster analysis and logistic regression. Acknowledging the social nature of the analysed data, which compresses the lived experience of the work life course into a longitudinal trajectory, it provides indications about the range of experiences of workers in the overt gig economy. The final analysis draws on a single longitudinal *qualitative* content analysis of two sources across three periods of interest. Overall, this dissertation can be classified as engaging in multi-strategy research (Bryman & Bell, 2019, p. 325), designed to allow for 'triangulation' of the results of both quantitative and qualitative insights into platformisation (Creswell & Creswell, 2018a) and an 'expansion' of the findings, which are then presented as *meta-inference* (Venkatesh et al., 2013).

In the remainder of this chapter, I introduce the three analytical strategies used in this dissertation: *topic modelling, social sequence analysis* and *qualitative content analysis*.

4.4 First analysis: Topic modelling

4.4.1 Data source: Online worker communities on Reddit

Workers in the remote gig economy have been demonstrated to gather on unofficial, i.e. not officially affiliated with an OLM, communication platforms, such as Facebook, Reddit or WhatsApp, to discuss the nature of their work, seek support, share experiences and guidance (Wood & Lehdonvirta, 2022), and air grievances (Gray et al., 2016). One recent study of remote gig workers' learning behaviour found that "[...] interviewees preferred to use forums and online communities not affiliated with online labour platforms [...]" (Cedefop, 2020, p. 43). It further identified that one third of participating high-skilled online workers turned to online forums for

learning at least weekly, with rates as high as 74% for certain professional groups, such as software developers (Cedefop, 2020). Evidence from the literature suggests that peripheral sites (beyond the organisational boundaries of the OLM) are not merely used for exchanges of opinions or learning but play an important role in the shaping of control mechanisms experienced by workers (Ens et al., 2023). The initial 'hunch' guiding this analysis was therefore that such fora would be frequented by active remote gig workers and thus are rich sources of data on their experience. In other words, where discussions take place in public online forums, they can be leveraged as sources of authentic worker discourse. To do so, I retrieved all individual messages (N=22720) from the 'r/Upwork' and 'r/Fiverr' discussion channels on Reddit for the period between 2012 and 2021 using the dedicated Pushshift API, which archives Reddit data for research purposes (Baumgartner et al., 2020). Following this, I re-arranged the posts into their original discussion threads (organised as one original 'post' and none to many chains of 'comments') resulting in a substantial corpus of conversational data. My operating assumption was that this data set contained genuine discourse between workers, clients and those interested in OLMs that could be grouped into coherent semantic categories that vary over time, due, for example, to policy changes or alterations to the platforms' technical setup.

4.4.2 Research method ³⁹

Topic modelling is an appropriate research method for studying remote gig workers' discourse on the social media community Reddit, since it allows detailed insights into an otherwise prohibitively extensive textual data set. By combining computational data reduction with a close reading and interpretation of individual threads, topic modelling allows the researcher to simultaneously adopt a bird's-eye view (sweeping across a large crowd over an extended period of time) and an intimate perspective. Previous applications of topic modelling to online worker communities have focused explicitly on workers from *remote microwork* platforms, such as MTurk (Nouri et al., 2020), or workers from the *local* gig economy platforms, such as Uber (Jiang et al., 2021), suggesting that this method can be successfully applied to study discourse from the identified Reddit communities. Since data were collected from two discussion channels

³⁹ Preliminary progress updates of this research were presented at the WORK 2021 conference in August 2021 (Charlton-Czaplicki & Margaryan, 2021) and the 38th EGOS colloquium in July 2022 (Charlton-Czaplicki & Márton, 2022).

('r/Upwork' and 'r/Fiverr'), an additional contextual variable was available during the analysis, which influenced my decision on which 'flavour' of topic modelling technique to adopt.

Structural topic modelling. Topic modelling is a statistical language-processing or textmining method that uses algorithms to explore large textual corpora that is increasingly adopted in political science (Lucas et al., 2015), sociology (Bail et al., 2017), organisational studies (Schmiedel et al., 2019) and further social sciences (Lindstedt, 2019). It directly addresses a growing demand for the computational analysis of unstructured textual *big data* sets resulting from accessible online sources and increasing computing power, which represent key sources of empirical insight into social phenomena (Wesslen, 2018). Topic models facilitate research by revealing underlying thematic clusters of terms that are indicative of a semantically coherent, latent *topic*. Interpreting the findings of this large-scale approach remains necessary, making the approach *a blend of* quantitative data reduction and qualitative data interpretation.

Topic models are latent variable models based on the assumed correlation between the words of a text and unobservable semantically coherent themes (Blei & Lafferty, 2007). They are conventionally applied to a *corpus* of individual *documents* (in this case, discussion threads). *Documents* in turn are composed of various textual *tokens*, i.e. individual words, known as unigrams, or multiple-word expressions, known as n-grams. *Tokens* (co-)occur with various frequencies across the *documents*. The core assumption of topic modelling is that the *patterns of token (co-)occurrence* are generated by latent variables or *topics* that are assumed to exist at the corpus-level (Guarino & Santoro, 2018). Each document exhibits a *mixture* of topics, which can be thought of as probability distributions over the *tokens* or vocabulary of the texts (Blei & Lafferty, 2007)⁴⁰ (Figure 6).

⁴⁰ State-of-the-art applications of topic models are generally *mixed-membership* models, though *single-membership* topic models have been applied in political science and other disciplines (Roberts et al., 2014). In this dissertation, I understand the term topic model to refer to the mixed-membership kind.

Figure 6

Illustration of a generic topic model adapted from Blei & Lafferty (2007)

Related Research

Continuing developments of digital technology have created new opportunities for innovations in service systems (Yoo et al. 2012). Recently, scholars from different fields have paid a significant amount of attention to innovations in service systems enabled by digital technology. The existing literature on digital innovation can be characterized in multiple ways. Here, we focus on how different scholars see the role of digital technology in innovation by identifying three dominant streams that are contrasted by their stance on the nature of technology and the role of different actors.

The first view, which we refer to as the generative view, focuses on the generative aspect of digital technology and how this changes the dynamics of innovations. For example, Yoo et al. (2010) argue that the emergence of layered modular architectures enabled by digital technology has made generative innovation possible (Zittrain 2006). Furthermore, afford-

Topic models rely on the frequency of term occurrence rather than the semantic meaning of terms, i.e. they adhere to the *bag-of-words* paradigm and must therefore be considered as crude models of language (Guarino & Santoro, 2018). Despite this, in combination with diligent interpretation and validation efforts, they can function as a powerful *reading lens* for large and otherwise unnavigable bodies of text between quantitative and qualitative analysis (Schmiedel et al., 2019). How topic models generate documents or, in the case of this analysis, *discussion threads* (indexed by *d*) can formally be expressed as follows (Blei & Lafferty, 2008; Hu et al., 2019):

- 1. A probability distribution over topics θ_d is drawn from a prior distribution.
- 2. For each word w_n in the document *d*, a topic z_{dn} is drawn from the distribution over topics θ_d ; and a word w_n from the vocabulary β_{dkv} where $k = z_{dn}$.

Whereby documents are indexed by *d*, words by *n*, the overall vocabulary of terms by *v* and topics by *k*, assuming the number of topics specified by the user *K*. The aim of the model is to infer the latent topics from the observed words *W*. The key outputs are θ , the proportion of topics per document and β , the distribution of words per topic (Hu et al., 2019).

Structural topic models (STM) improve on Latent Dirichlet Allocation (LDA), the conventional and frequently used type of topic model, by allowing document-level covariates, i.e. structural information available about the document, to be included in the prior distributions of words in topics or topics in documents (Roberts et al., 2014). In the STM, the Dirichlet parameters guiding topical prevalence α in the LDA are replaced with generalized linear models using document-level covariates as parameters X(Y) (Hu et al., 2019; Roberts et al., 2014). In this analysis, I assumed the platform itself (Upwork or Fiverr) to be relevant structural information, since workers' experiences might differ due to local platform-specific affordances or constraints, and included this as the covariate affecting topical prevalence (X). Put differently, since both platforms operate as independent businesses (albeit of a similar style), the experience of remote gig work is assumed to differ between the two and regulatory or functional changes might occur at different times, affecting the topics of conversation in the peripheral social media communities. If, for example, a specific topic only concerned users of one platform and generates conversation only in a subset of the data, the desired outcome would be that it is included in the final topic model despite not being universally discussed. In this case, my aim was to explore whether the relationship between the covariate (the platform concerned) and the *prevalence* of certain topics over time offers deeper understanding of how different platform work environments shape the experience of remote gig work. An illustration of conventional LDA topic models and the extended STM variant is provided in (Figure 7).

Figure 7

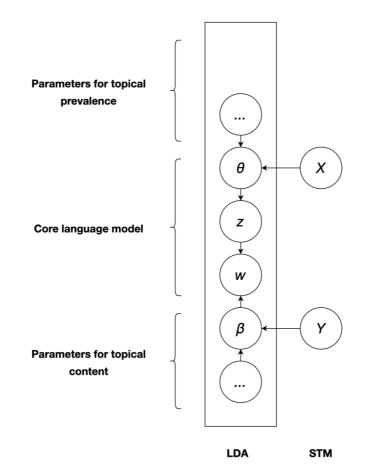


Plate notation of LDA and STM topic models adapted from Hu et al., (2019)

Note. β = topic-word distribution. θ = document-topic proportions. *X* = topical-prevalence covariate. *Y* = topical content covariate.

4.4.3 Analytical protocol

The protocol of the analysis consisted of the following steps: 1. data retrieval and processing, 2. computing the topic model and 3. topic validation. I understand the topic model as a reading lens for a textual corpus that is otherwise too large to navigate for a human researcher, and therefore also engage in 4. qualitative analysis guided by the results. The individual steps are presented below:

1. Data retrieval and processing. The raw data were collected from the Pushshift API (Baumgartner et al., 2020) using Python in March 2021. Further data processing and analysis steps were performed in R (R Core Team, 2022) using the *quanteda* library (Benoit et al., 2022)

and the topic model was estimated using the *stm* library (Roberts et al., 2019). In an initial processing step, the individual posts were reassembled as discussion threads, i.e. either a singular post or a post followed by comments and replies to comments, etc. Subsequently, the text was processed by removing any URLs and converting all words to lowercase characters. Common English stop words, such as 'and' or 'or', as included in the *quanteda* library for R (Benoit et al., 2022), and custom terms related to the platforms⁴¹, were dropped from the text in the next step. Subsequently, all punctuation and numbers were stripped, and the terms were *stemmed*, meaning they were reduced to their word stems, e.g. 'drinking' was converted to 'drink', etc.

2. Computing the topic model. A function provided by the *stm* library was used to determine K (the optimal number of topics in the corpus). To do so, models for K between 2 and 50 were fitted (in steps of 2) and the *residual dispersion, semantic coherence, heldout likelihood* and *lower bound* statistics were computed from which a probable K can be inferred (Roberts et al., 2019). A 16-topic model exhibited the most semantically coherent collections of words at first glance as well as preferable fit statistics. Three topics from this model were excluded based on low measures of *semantic coherence* and *term exclusivity*, measures of topic quality computed using the *stm* library.

3. Topic validation. Various methods of topic validation have been proposed, including crowdsourced approaches such as word- or topic-level intrusion detection (Ying et al., 2019). In this case, labels were assigned based on the most prevalent topic keywords by an anonymous online poll administered to an expert group of platform and learning specialists during a seminar in 2021 (N=5). Where two or more respondents agreed on a label, that description was assigned to the topic. In the remaining cases, the label was chosen by me. During the validation process, one further topic was dropped, leaving a total of 12.

4. Qualitative analysis. To assemble source material for the qualitative analysis, the twenty documents with the highest topical content for each of the validated topics were extracted and exported in plain text format. The level of topical content was determined by ranking the documents using their θ values (the proportion of terms corresponding to the topic in question) and only results with a minimum length of 3000 characters were retained to ensure sufficient content for further analysis. An additional constraint was placed on the selection process by

⁴¹ The custom omitted words were: "fiverr", "fiver", "upwork", "elance", "odesk" and variations thereof.

retaining only documents with a minimum of five responses (comments), suggesting they had garnered a certain amount of attention from the community. In a final step, the exported documents, each containing one 'topical' discussion, were loaded into the *NVivo* CAQDAS environment, sorted into their respective topics and ordered by adherence from most representative of the given topic to least so. I then engaged in a close interpretative reading of the exported documents, applying *in vivo coding* to salient expressions and then applying *pattern coding* to group experiences into emergent *themes* (Saldaña, 2013, pp. 4, 210).

4.4.4 Limitations of the method

The structural topic modelling approach presented here has three limitations. First, since it adheres to the *bag-of-words* paradigm and relies on a comparatively crude model of language, topic modelling in general should be regarded only as an exploratory technique. The separation between topics is likely attributable to certain terms only. Without careful reading and interpretation of the documents, the topic model itself does not possess any explanatory value. The veneer of a quantitative method could suggest determinacy where in fact the results are interpretative. Second, despite numerous available metric and fit statistics, the decision about the total number of topics K is user-defined and represents a trade-off between granularity (higher K) and a manageable number of topics for interpretation. The resulting interpretation must accordingly be understood against this selection process for K as not being exhaustive. In other words, one can say *there are at least K topics* in the corpus lending themselves for interpretation. Through this process of data reduction, much of the nuance in the corpus is lost. Third, in this research scenario, I drew only on data from peripheral support communities and not from official, OLM-affiliated fora. In future research, such data could be included in a structural topic model and the information about whether the source of a document is OLM-affiliated in the covariate for topical prevalence.

4.5 Second analysis: Social sequence analysis

4.5.1 Data source: Work life trajectories

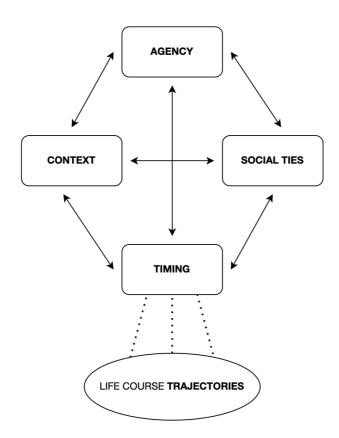
Longitudinal survey data have been described as the "Hubble telescope" of the social sciences, allowing researchers to "look back in time and record the antecedents of current events and transitions" (Butz & Torrey, 2006, p. 1898). They enable the adoption of a holistic view on social phenomena according to the *life course paradigm*, a perspective of four interrelated factors

influencing human development (Figure 8): a) *context*, b) *social ties*, c) *agency* and d) the *timing* of important events (Elder & Giele, 2009). The recognition of the *biographical context* of individuals is an important pillar of life course research in that it accounts for grand, society-level developments and experiences of a birth cohort, e.g. the availability of the internet, or, possibly, the emergence of digital labour platforms. The *social ties* paradigmatic factor refers to the social relationships and accompanying roles that an individual might experience at different stages of their life course, e.g. the gradual transition from child to parent, and how they are embedded in a network of social relations. The *agency* dimension of the life course refers to the ways individuals self-select into certain situations based on their personal volition (and goal-oriented models of their own life course). Finally, *timing* is a connective factor common to the previously mentioned aspects of the life course and situates the individual life course depending on personally significant events or milestones (Margaryan & Hofmeister, 2021).

Generally applied to the entirety of the human life span from birth to death, the fourfold paradigm has also been used to study specific domains of lives, such as the 'work life course' (Heinz, 2003). Since the work is allocated *on demand* in the gig economy and not pre-determined into the future on a contractual basis, individuals are likely to engage in it with varying intensity at different stages, adjusted to the availability of work and personal circumstances. A cross-sectional analysis can therefore not adequately capture the *reality* of gig work in the sense that it is embedded not only in labour markets but also local geographies, family relations, previous career steps, etc., and influenced by major milestones, such as finishing schooling, retiring or falling ill. I argue that a 'work life course' perspective is ideally suited to understand the transformational impact of platformisation on work, since it maps its impact beyond merely the immediate occupational status and the related economic situation to cover an individual's personal context. However, reliable data sources on the work life course of gig workers have been scarce and dedicated questions on the gig economy have only recently been included in large panel surveys, such as the UK Household Longitudinal Study (UKHLS).

Figure 8

The paradigmatic factors of the life course adapted from Giele & Elder (1998, p. 11)



The UKHLS or *Understanding Society* is a longitudinal household panel survey administered by the Institute for Social and Economic Research at the University of Essex⁴². It was initiated in 2009 with an intake of around 40,000 household, and it is the successor of the British Household Panel Survey (BHPS), allowing the lives of individual households and their members to be tracked from as early as 1991 if they participated throughout. As a multi-topic panel study, it includes variables on demographic, economic and behavioural aspects of individual's lives and households, making it useful for domain-crossing analyses. Examples of queried information are jobs, household finances, housing and, from 2020 onwards, participation in the gig economy. In this analysis, data collected yearly on individuals' occupational status were used to assemble career trajectories backwards from their self-reported participation in the gig economy.

⁴² University of Essex, Institute for Social and Economic Research. (2022). Understanding Society: Waves 1-12, 2009-2021 and Harmonised BHPS: Waves 1-18, 1991-2009. [data collection]. 17th Edition. UK Data Service. SN: 6614, DOI: 10.5255/UKDA-SN-6614-18

4.5.2 Research method ⁴³

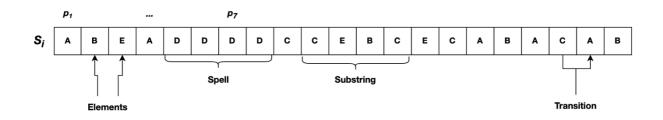
The analysis of *social sequences*, such as individuals' career paths or work life courses, has become a key concern of social and organisational science (Abbott, 1990). Originally a method used in bioinformatics, Abbott pioneered the application of sequence analysis methods to social data over the past four decades (Abbott & Forrest, 1986; Abbott & Hrycak, 1990; Abbott & Tsay, 2000). The breakthrough represented by sequence analysis was its holistic approach to the data, examining and classifying it according to its full ordered sequence of events and not merely characteristic 'stand-out' occurrences (Pollock, 2007). In other words, it is a method designed to respect the 'depth' of a social situation rather than conflating information about the past into a single variable (Abbott, 1990). Sequence analyses have in the past been used to study career paths of temporary workers (S. Fuller & Stecy-Hildebrandt, 2015) and how periods of unemployment are related to poverty (Pohlig, 2021). Applying sequence analysis to analyse of novel forms of work, such as gig work, is a promising approach to understand its macro-level dynamics in ways unavailable using conventional cross-sectional methods.

Elements of social sequence analysis. Preparing for the analysis, it is useful to clarify some of the core terminology related to the method, including that of *sequences* themselves (Figure 9). Any given sequence (S_i) drawn from a sample of subjects $N = \{n_1, n_2, \dots, n_g\}$ (e.g. individuals, organisations, etc.) can itself be understood as a sample of occurrences (*elements*) ordered by some underlying logic (e.g. temporally, spatially, etc.) (Abbott, 1990; Cornwell, 2015, p. 62). The *elements* $E = \{e_1, e_2, \dots, e_k\}$ occur along the sequence in any possible place or *position* $P = \{p_1, p_2, \dots, p_t\}$. The possible range of *elements* is referred to as the element universe or *alphabet*. It makes sense, therefore, in the context of a sequence, to say that the *element* at the seventh position along the sequence is 'D' (or $p_7 = D$). Since *sequences* are ordered and interpreted from left to right, a changed element between two sequential positions (e.g. $p_{19} \rightarrow p_{20}$) is referred to as a *transition*. The two positions p_{19} and p_{20} make up a *substring* of length t > 1 composed of only one *element* is called a *spell* (Cornwell, 2015, pp. 59–62).

⁴³ A preliminary version of this analytical approach was developed with a collaborating researcher and presented at the Society for the Advancement of Socio-Economics annual conference in July 2022 (Charlton-Czaplicki & Hukal, 2022).

Figure 9

Features of a sequence adapted from Cornwell (2015, p. 59)



To illustrate, in this analysis, the *subjects* are individual workers and the *sequences* are their occupational states recorded for eleven years and ordered by year. Each *element* along the sequence can only be drawn from an *alphabet* determined by the encoding of responses during data collection. For example, the 200th worker in the sample might be unemployed during data collection in the third wave (year) of the panel study, so p_3 along $S_{occupations}$ for $n_{200} = UN$ (unemployed).

Optimal matching. A central step of the sequence analysis method is to determine the similarity between certain chains of events, i.e. 'sequences of states'. Numerous approaches exist to determining the similarity between sequences, including based on the number of common subsequences, the number of mismatches or the rates of transition between states (Studer & Ritschard, 2016). One of the methods most well-known and established in the academic literature on social sequence analysis, is optimal matching (OM), an algebraic approach to calculating distance metrics between sequences originally developed in the field of bioinformatics (cf. Needleman & Wunsch, 1970), which was initially applied to social data by Abbott & Forrest (1986). OM algorithms are best described as 'pattern-search techniques' which take into account the sequence as a whole rather than isolated aspects of it and aim to determine the "minimum cost for turning x into y by using theoretically defined costs" (Studer & Ritschard, 2016, p. 486). In OM, distances between sequences are determined by calculating the minimum number of three simple operations (replacement, insertion and deletion of individual states) required to convert one sequence into the other (Abbott & Tsay, 2000). The 'cost' of such substitutions can either be a fixed value, based on theory or expertise on the subject (Cornwell, 2015) or determined algorithmically (Studer & Ritschard, 2016). With each step, the costs 'accrue' and it is the goal of the algorithm to identify the 'cheapest' (i.e. least 'costly') way of conversion under the given substitution cost regime (Pollock, 2007). Since the substitution costs encode the prior knowledge

on the subject and can influence the findings of the sequence analysis, they should be carefully considered.

Substitution costs. There are numerous ways to determine appropriate substitution costs for an intended sequence analysis, and it is arguably the methodological step allowing the most 'researcher degrees of freedom'. Drawing on available knowledge about the sequences to determine the theoretical costs is a tried-and-tested approach and—provided the available information is of high-quality—the most plausible way of reflecting a priori knowledge in the analysis (Pollock, 2007). This might involve assigning a 'cheaper' cost to a substitution that is theoretically or empirically more likely to occur than another. For example, exchanging a state of 'employment' for 'retirement' is a more likely substitution than, vice versa, entering the labour market after having already been in retirement and should therefore accrue a lower cost.

Once the similarity between sequences has been encoded using OM, usually in the form of a 'dissimilarity matrix', which represents the total substitution cost required to convert each sequence into any other, it can be used as the basis for further analysis, such as clustering, to uncover latent types in the data.

Cluster analysis. Cluster analysis has become a mainstay of the computational social sciences as a method of identifying latent groups in research data (Kaufman & Rousseeuw, 1990/2005). It is also one of the most commonly applied strategies to develop typologies from social sequence data that has been processed using OM algorithms (Gabadinho et al., 2011).

There are two families of clustering algorithm that have been successfully used to generate insightful and robust typologies from dissimilarity matrices generated by social sequence analysis: *hierarchical* and *partitioning* clustering (Kaufman & Rousseeuw, 1990/2005; Studer, 2013). The basic functions of the two basic algorithms used in this analysis are outlined below:

Partitioning around medoids (PAM). To generate k clusters, the algorithm is initiated with k 'representative objects'. These are allocated to be central (i.e. exhibit the minimum sum of distances) to other objects in the cluster. The *optimal* representative object is referred to as the *medoid* of the cluster. Clusters are then gradually improved by 'swapping' objects between clusters to minimise the total distance. The use of representative objects makes PAM algorithms particularly useful for characterisation purposes and they can be applied directly to input that is a dissimilarity matrix (Kaufman & Rousseeuw, 1990/2005, pp. 40–41; Studer, 2013).

Weighted Pair Group Method with Arithmetic Mean (WPGMA). WPGMA, also referred to as McQuitty's method, is a hierarchical agglomerative clustering algorithm. This means that at the onset, the algorithm deals with *n* clusters (corresponding to the number of objects) and with each iteration merges two clusters until *k* remain. The obvious issue with hierarchical clustering is that merges (or partitions) once performed cannot be undone, potentially leading to a non-optimal global solution (Kaufman & Rousseeuw, 1990/2005; Studer, 2013).

Both approaches (hierarchical and partitioning) have in common that the appropriate k has to be determined a priori. One strategy to find an appropriate solution is to rely on measures of partition quality, approximately equivalent to model 'fit statistics', between different algorithms and values for k. The results can then be compared visually to detect obvious 'drop-offs' in cluster quality. Once a suitable clustering solution has been found and interpreted, it can be used as a variable in further statistical analyses, such as regression analysis or contingency tests.

Chi-square contingency table analysis. Two-way tables of the frequencies of two categorical variables are commonly features of interest in the analysis of social data. In this case, the relationship between the typological outcome of the cluster analysis and the type of gig work performed is of theoretical interest. X^2 'contingency tests' can be used to test the association between the joint frequencies of two variables tabulated in this way against a null hypothesis specifying that no association exists between the (Cohen, 1988, p. 215). To subsequently determine the 'strength' of the association between the two nominal variables a measure of effect size, such as Cohen's *w*, can be calculated and interpreted⁴⁴.

Logistic regression. To analyse the relationship between a workers' career trajectory leading up to their participation in the gig economy and whether they remained active during the next wave of data collection, logistic regression was used. Logistic regression is a specific form of a generalised linear model (GLM) that requires the output to be bounded between 0 and 1 using a transformation, such as the logistic function (Gelman et al., 2020, p. 217). The coefficients of a logistic regression can be interpreted in terms of their odds, i.e. a one unit change in x given β corresponds to a change of e^{β} in the odds. The selection of predictor variables for inclusion in a multiple logistic regression model (covariates) is an iterative process weighing up univariate statistics, model fit statistics and the researcher's experience and subject-matter knowledge

⁴⁴ Cohen (1988, p. 227) suggests the following reference values to interpret w: small effect size, w = .10; medium effect size, w = .30 and large effect size w = .50.

(Hosmer et al., 2013, p. 89). Numerous approaches exist, targeting either a complete model containing all available variables or a parsimonious solution including only significant terms, reached either by gradually adding covariates to a base model or removing them from a model specifying all available variables as predictors. The significance of additional terms added during iterations can be evaluated using statistical tests, such as the log-likelihood ratio test. Statistical computing environments generally include automated procedures for model development, though a researcher-specified approach, such as the one I follow in this analysis, is generally considered preferable (Hosmer et al., 2013, pp. 15, 94).

4.5.3 Analytical protocol

The protocol of the analysis consisted of the following steps: 1. selecting the appropriate variables and weights for an analysis of gig worker demographics in the UK during 2020 and 2021, 2. assembling the occupational trajectories of workers as sequences of occupational states, 3. determining an appropriate substitution cost regime and calculating a dissimilarity matrix, 4. determining an appropriate clustering algorithm and number of clusters k, 5. calculating the X² contingency table test of the type of gig work and the trajectory and 6. computing and interpreting a logistic regression model to analyse the relationship between trajectories and whether individuals remained in the gig economy during the following wave. The analytical process and statistics are presented below, whereas the substantive interpretations of the findings are elaborated in the next chapter.

1. Variable selection and analysis. In this analysis, the following variables of the UKHLS were analysed:⁴⁵

- Gig economy: The latest two waves (11 and 12) of the UKHLS specifically queried participants regarding their participation in the gig economy. Thereby, the interviewers offered choices between *transportation services* (a local form of gig work; e.g. offering taxi rides), *delivery services* (local; e.g. delivering food from restaurants), *courier services* (local; e.g. package deliveries), *manual services*

⁴⁵ The variable descriptions are derived from:

https://web.archive.org/save/https://www.understandingsociety.ac.uk/documentation/mainstage/dataset-documentation (accessed on 8 December 2022).

(local; e.g. cleaning or pet-sitting) and *non-manual tasks* (remote; e.g. online freelancing such as web development or translation).

- Current labour force status: A variable capturing individuals' current employment situation that was recorded during all survey waves. Possible responses are: *self-employed*, *paid employment* (full-time / part-time), *unemployed*, *retired*, *on maternity leave*, *family care or home*, *full-time student*, *long-term sick or disabled*, *government training scheme*, *unpaid family business*, *on apprenticeship*, *on furlough*, *temporarily laid off*, *other* or *missing* (for various reasons).
- Age: This variable corresponds to the participant's age in completed years at the time of the interview. It is not queried directly, but calculated from various other variables in the survey. This variable was derived in all waves.
- Location: A dummy variable derived from the respondent's address that classifies them as living in an *urban* or *rural* area during all survey waves.
- Sex: The respondent's sex, derived from other variables in the survey during all waves.
- Educational attainment: A derived variable corresponding to the highest educational or vocational qualification at the time of the interview. Possible options are *university degree*, *other degree*, *A-level*, *GCSE*, *other qualification* or *no qualification* as well as *missing* values. This variable was derived in all waves.
- Born in the UK: Corresponds to whether a participant claimed to be born in England, Scotland, Wales or Northern Ireland. This variable was captured in all waves.

It is generally not possible for large household panel studies to represent all groups of the population with equal probability. As a result, the UKHLS provides *weights* (both longitudinal and cross-sectional) to correct for bias during the analysis. The analysis of variables means and the analysis of sequences (assembled backwards, from the first capture of the gig economy variables in wave 11) were conducted using the appropriate weight for a cross-section of individuals (aged 16 and above) in the UK⁴⁶.

⁴⁶ For an overview of the weighting schema see:

https://web.archive.org/web/20221208172420/https://www.understandingsociety.ac.uk/documentation/mainstage/u ser-guides/main-survey-user-guide/selecting-the-correct-weight-for-your-analysis (accessed on 8 December 2022).

2. Assembling the occupational sequences. Occupational histories were assembled from individuals' responses to the *current labour force status* variables. The possible responses to the query were collapsed to create a sequence 'alphabet': ED ('in education') was applied to *full-time students* and those on *training schemes* or *apprenticeships*; RE ('retired'); UN ('unemployed'); SE ('self-employed'); EM ('employed') and OL ('out of the labour market'), which was introduced as a catch-all grouping for all remaining states. Finally, since numerous individuals had not reached the age of 16 during earlier waves and were taking up their initial occupational state during the progress of the survey, a WA ('waiting to enter the labour market') state was imputed for those who had not reached 26 years at wave 11 to fill all occupational states prior to their first recorded event (see also Charlton-Czaplicki & Hukal, 2022).

Overall, n = 459 sequences were generated, with the maximum length corresponding to the amount of wave up to and including the first capture of self-reported gig economy activity (l = 11). The average (mean) length of a sequence was 9.96 and there were on average (median) two transitions in a sequence.

3. Defining the substitution costs. For this analysis, the substitution costs for labour market states drawn up by Pollock (2007) were used as a base and then adjusted by considering each 'occupational state pairing' individually (see also Charlton-Czaplicki & Hukal, 2022). This approach was indicated because the analysis presented by Pollock (2007) is based on the predecessor survey to the UKHLS, the British Household Panel Survey (BHPS), which shares a largely unaltered variable schema in regard to occupational states with its successor. Further, I assumed that including available information in the analysis was preferable to determining the substitution costs from scratch. The final substitution cost matrix used in this analysis is presented in Table 3. Occupational sequences were then computed using the *TraMineR* library (Gabadinho et al., 2011) for R (R Core Team, 2022).

4. Clustering. To determine the optimal k, I compared the following indicators of cluster quality: Hubert's C (HC; minimum is preferable), Hubert's Gamma (HG; maximum is preferable), Point Biserial Correlation (PBC; maximum is preferable) and weighted Average Silhouette Width (ASWw; maximum is preferable) (Studer, 2013, pp. 30–32). A six-cluster solution (Figure 10) emerged as the clear optimum for both clustering methods. Finally, to determine the quality of the solution, the ASWw metric can be interpreted directly. According to Kaufman & Rousseeuw (1990/2005, p. 88) the obtained value of .51 for the six-cluster PAM clustering indicates that "a reasonable structure has been found".

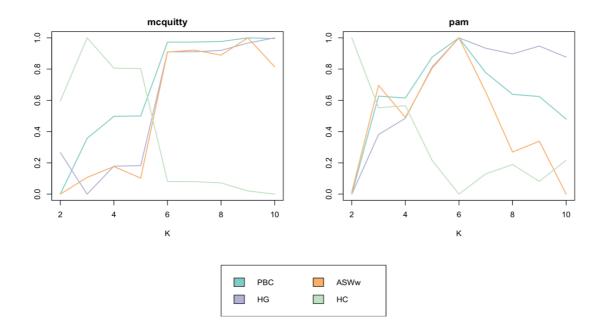
Table 3

	OL	ED	RE	UN	SE	EM	WA
OL	0						
ED	1.6	0					
RE	2	1.8	0				
UN	.8	1.2	1.2	0			
SE	1.6	1.4	1.6	1.6	0		
EM	1.8	1.4	1.2	1.6	1.4	0	
WA	1.8	.8	2	1.6	1.4	.8	0

Custom substitution cost matrix (Charlton-Czaplicki & Hukal, 2022)

Figure 10

Elbow plot of cluster partition quality measures



Note. mcquitty = hierarchical clustering. pam = partitioning clustering.

5. Contingency table testing. The two-way table between the resulting typology and the type of gig work was calculated respecting the cross-sectional survey weights for the eleventh wave ($X^2 = 67.517, p < .001$). The measure of effect size w = .44 [.42,.60] suggests that a moderate-strong relationship exists between the two variables.

6. Logistic regression. To analyse whether (and, if so, which) type of trajectory predicted an individual's remaining in the gig economy in the following survey wave, a binary dummy outcome variable was created to capture whether workers remained in the gig economy one year on by joining waves 11 and 12 using individual participant IDs and checking for continuity in either of the gig economy categories. Then, iteratively, a model was defined by adding additional terms and evaluating the log-likelihood ratio between the models for significance. First, a baseline (null model) was fitted. Then, the *trajectory* (the outcome of the cluster analysis), the *type of gig work, age, educational attainment, location (urban/rural)* and *sex* were evaluated as additions to the covariate. *Type of gig work* and *educational attainment* were dropped from the model, since they provided only marginal improvements in terms of the log-likelihood ratio statistic⁴⁷.

4.5.4 Limitations of the method

There are some methodological limitations to the approach presented. First, the lack of longitudinal data about the trajectories of individuals who are already in the gig economy due to the UKHLS only taking up the relevant questions into the main questionnaire in 2020, means that the developed typology is speculatively indicative only of individuals' occupational histories *leading up* to their participation in the gig economy. This means it is entirely possible that a gig worker captured in the survey has already been actively using digital labour platforms for years, but was not asked to disclose this information. As future waves of the study are made available that include the relevant variables, this limitation will gradually be removed. Second, clustering approaches tend to involve a trade-off between interpretable findings and granularity. While it would have been highly insightful to include further labour market states in the sequence alphabet (e.g. by disaggregating between full-time and part-time employment), the small sub-sample size would have fragmented the analysis beyond useful interpretation. As more data become available, this limitation will also be lifted. Third, it is worth noting that numerous factors could affect

⁴⁷ Baseline model log-likelihood: -174.46; + *trajectory* ($X^2(5) = 21.72, p < .001$); + *age* ($X^2(1) = 11.025, p < .001$); + *education* ($X^2(1) = 0.0408, p < 1$); + *sex* ($X^2(1) = 9.57, p < .01$); + *location* ($X^2(1) = 6.739, p < .01$);

⁺ type of gig work ($X^2(4) = 12.601, p < .05$). Final specification: continuity ~ trajectory + age + sex + location.

whether individuals participate in the following wave of a longitudinal household panel study beyond the type of gig economy work and those that drop out of the study might still be engaged in gig work. The logistic regression model covers only individuals who participated in the survey in the two successive final recorded waves and therefore the estimates should not be viewed as reflective of actual changes in numbers but indicative of trends. Finally, this analysis is, at its core, theory-driven, since the substitution costs were informed by the available academic literature and the final choice of clustering solution by interpretability and plausibility. This, paired with relatively small samples sizes for some of the clusters, limit the use of the typology as a variable in further quantitative analysis (X^2 contingency testing and logistic regression). The findings should therefore be interpreted as indications of labour market trends rather than exact figures proportional to the overall number of gig workers in the UK.

4.6 Third analysis: Qualitative content analysis

4.6.1 Data source: Online amateur OSIN/T communities on Discord

This source consists of data from two typical contemporary civilian OSIN/T communities, one closely linked to a journalistic outlet (Bellingcat) and the other grassroots and community driven (Project OWL) and three temporal events representing different stages during the early phase of the Russian invasion of Ukraine in 2022 for which corresponding media coverage exists that directly references OSIN/T community input (Table 4)⁴⁸.

⁴⁸ The communities and time-spans were determined collaboratively with Anna-Theresa Mayer during my research stay at the Weizenbaum Institute for the Networked Society in Berlin in 2022. The qualitative analysis was also performed collaboratively between the two of us, and Anna provided highly valuable insights into OSIN/T from a communication studies perspective, including identifying many of the relevant sources I draw on in this analysis.

Table 4

Event	Timespan	Description
Makhariv	26.02.22 - 31.03.22	Unencrypted radio communications among Russian troops during the early phase of the invasion shed light on strategic failures and logistical issues among the Russian forces. ⁴⁹
Bucha	31.03.22 - 04.04.22	Documentation of civilian killings following the failed attempt by Russian forces to capture Bucha in the early phase of the Russian invasion of Ukraine in February / March 2022 and debunking of Russian disinformation claims. ⁵⁰
Kramatorsk	08.04.22 - 14.04.22	Investigation surrounding the use of illegal cluster ammunition in the shelling of civilian railway station in the town of Kramatorsk in April 2022. ⁵¹

Time spans of the analysed events adapted from Charlton-Czaplicki et al., (2022)

Bellingcat: The first source is the Discord server operated by a collective of open source investigators formed in 2014. Bellingcat, the self-described "home of online investigations", has received numerous prizes for their journalistic work using open data surrounding events such as the Skripal poisoning, the shooting of MH17 and the Yemen conflict (Cooper & Mutsvairo, 2021, pp. 106–107) as well as the Russian invasion of Ukraine in 2022. The group's work has been featured in prominent mainstream media outlets, including the New York Times and the Economist (The Economist, 2021). Through their website, Bellingcat offer access to a range of educational and training materials for novice OSIN/T practitioners. Additionally, there exist peripheral community spaces on social media platforms, such as Reddit and Discord, the latter of

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https://web.archive.org/web/20221114155740/https://www.nytimes.com/video/world/europe/10000008266864/rus sia-army-radio-makariv.html (accessed on 14.11.2022)

⁵⁰ https://web.archive.org/web/20221114160642/https://www.bellingcat.com/news/2022/04/04/russias-bucha-facts-versus-the-evidence/ (accessed on 14.11.2022)

⁵¹ https://web.archive.org/web/20221114161505/https://www.bellingcat.com/news/2022/04/14/russias-kramatorsk-facts-versus-the-evidence/ (accessed on 14.11.2022)

which is described as a space where "anyone can join and share tools, ask questions, and collaborate on research projects"⁵². The Bellingcat Discord server is moderated by staff members and volunteers. Access and membership are open to anyone (since it is a 'public server') and its channels are organised according to a thematic structure. For the purpose of this analysis only the channels pertaining to the Russian invasion of Ukraine and general OSIN/T practices were examined⁵³.

Project Owl: The second source is a community-operated Discord server with a large active membership and wide-ranging topics. It exemplifies a grassroots community effort not aligned with any journalistic publication, governmental or non-governmental organisation. The Project Owl community self-describe as "the hub for international OSINT and event monitoring"⁵⁴ and a source for "credible news and updates in real time"⁵⁵. Only channels relevant to the Russian invasion of Ukraine and general OSIN/T practices were taken into account⁵⁶. Server moderation is a community matter and undertaken on a voluntary basis. In contrast to Bellingcat, Project Owl do not maintain a separate website.

4.6.2 Research method⁵⁷

This section presents a qualitative content analysis of OSIN/T communities on digital platforms. Specifically, two exemplars of OSIN/T communities were chosen to represent different *types* of open source investigation (Miles et al., 2014, p. 103). To better understand the platform-native activity performed by OSIN/T communities, this analysis focuses on community discourse

⁵² https://web.archive.org/web/20221114141046/https://www.bellingcat.com/resources/2021/11/09/first-steps-to-getting-started-in-open-source-research/ (accessed on 14.11.2022)

⁵³ The analysed channels were: 'Help some people out / crowdsourcing-tasks'; 'Learn - reading list'; 'general / media mentions'; 'general / open-source-general'; 'general / tools-and-sites-and-et-cetera'; 'regions / completed-ukraine-geolocations'; 'regions / russia-ukraine-eastern-europe' and 'regions / ukraine-geolocation'.

⁵⁴ https://web.archive.org/web/20221114140900/https://discord.com/invite/projectowl/ (accessed on 14.11.2022)

⁵⁵ https://web.archive.org/web/20221114140659/https://twitter.com/projectowlosint/status/1590713349377228800 (accessed on 14.11.2022)

⁵⁶ The analysed channels were: 'Eastern Europe / ru-ua-speculation'; 'Eastern Europe / russia-ukraine-news'; 'Eastern Europe / russia-ukraine-osint '; 'Eastern Europe / ukraine-siren-alerts'; 'Project Owl OSINT / osint-media' and 'Project Owl OSINT / signals'.

⁵⁷ Preliminary versions of this research with a more pronounced focus on the dynamic interactions between journalism and OSIN/T communities from a communication and journalism studies perspective were presented at the International Journal of Press/Politics conference in Loughborough (Charlton-Czaplicki et al., 2022) and during multiple research presentations at the Weizenbaum Insitute in 2022.

to trace the dynamics unfolding between community members, journalistic actors and the public, and maps the result onto the Arendtian framework (Figure 5).

Community discourse on Discord. Discord is a social platform originally popularised in the gaming community, which it is geared towards by offering a variety of community governance mechanisms, such as customised bots, topic-based channel structure and invitation-only private communities⁵⁸. It has expanded to host numerous other 'online-first' communities, including on topics such as cryptocurrency or politics (Robinson, 2022). Discord's extensive 'auto-moderation' and scripting features allow communities to self-govern even large member counts without excessive demands for personnel. Despite being promoted as a leisurely, community-centric experience, Discord communities, called 'servers'⁵⁹, are organised according to a strict top-down structure along the "owner-administrator-moderator-user hierarchy" (Robinson, 2022, p. 6). Both Discord servers in this analysis were open to the public (subject to registration under a chosen alias) at the time of data collection between May and July 2022. The message history of the channels deemed relevant during the timespans specified in (Table 4) was exported to PDF and subsequently loaded into the *MaxQDA* CAQDAS.

4.6.3 Analytical protocol

The qualitative content analysis was performed according to the 'directed content analysis' approach (Hsieh & Shannon, 2005), i.e. by first building a theory-driven coding schema that was further refined during multiple rounds of coding and subsequent discussion among the researchers (see Footnote 48). The analysis consisted of three steps: 1. retrieving the data for the relevant time-frames, 2. collaborative coding to establish a functional coding schema and 3. iterative analysis.

1. Data retrieval. The coding schema rested on the assumption that OSIN/T communities on digital social media platforms, such as Discord, operate as funnels for information by collecting, processing and validating "scraps of information" about a given event, which can then

⁵⁸ See https://web.archive.org/web/20221114141108/https://discord.com/company (accessed on 09.11.2022).

⁵⁹ Somewhat of a misnomer, the term 'server' in Discord terminology refers to a community operated by the Discord parent company rather than an actual (self-)hosted instance.

See: https://web.archive.org/web/20221116221956/https://www.wired.com/story/how-to-use-discord/ (accessed 16.11.2022).

be "compiled into systems, including narrative structures" by journalistic actors (M. Fuller & Weizman, 2021, p. 5). The events listed in Table 4 were discussed in both communities and were explicitly mentioned in the corresponding journalistic output. Studying the discourse among OSIN/T actors in-situ, without researcher intervention, was assumed to result in data representing the 'activity' of OSIN/T practice. The analytical strategy was presented to a panel of senior communication and media studies scholars in July 2022 and the received feedback was taken into account in the final analysis.

2. Collaborative coding. In the initial phase, overarching codes were determined to capture the temporal phases of information flow based on an existing preunderstanding of communicative interaction between journalistic actors and the public in digital spaces (*input, throughput, output* and *institutional platform order*)⁶⁰, to account for factors attributable directly to the platform environment the studied OSIN/T groups operate in. Then a set time period (the last week of March 2022) was coded by both researchers using exploratory *activity coding*, a technique that involves applying codes corresponding to the gerunds of the processes and activities taking place in the data, e.g. discussing, investigating, geolocating, etc. (Saldaña, 2013, p. 96). This approach was warranted since the subject of the inquiry is precisely the type of activity engaged in by individuals participating in the OSIN/T process. The resulting codes were then sorted into the input, throughput and output stages and the findings were compared among the researchers. The next phase involved collaboratively refining the coding schema by iteratively axially coding (Saldaña, 2013, p. 218) and reducing the broad descriptive codes into salient themes until agreement was reached on a final coding schema (Appendix A).

3. Iterative analysis. In the final step, the schema was applied separately by both researchers to the three time-frames (Table 4) across both communities, with the collaborating researcher processing one case (Bucha) and myself analysing two (Makhariv and Kramatorsk). The emergent findings were then collaboratively interpreted and discussed.

⁶⁰ The separation of information flows into three phases (input, throughput and output) was suggested during a group discussion at the Weizenbaum Institute in July 2022 and is based on the public sphere conceptualisation of Neidhardt (1994).

4.6.4 Limitations of the method

The presented approach is limited by the unique historical context of the collected data. The early phase of the Russian invasion of Ukraine in 2022 was chosen as a time-frame for data collection because it sparked popular interest in OSIN/T communities, leading to increased activity across the two Discord servers studied. However, the volatile situation and influx of novice OSIN/T practitioners following the event could mean that the observed discourse is not typical of OSIN/T practice but uniquely linked with the situation. This could affect the transferability of the findings to other time-frames, an aspect that should be explored in future research.

4.7 Plausibility of the research design

The research design presented here integrated both qualitative and quantitative data in an abductive research cycle using the *vita activa* as a conceptual framework. Rather than applying standard validity criteria of the qualitative (e.g. transferability, credibility, etc.) or quantitative (e.g. internal validity, external validity, reliability, etc.) paradigms, it is appropriate to focus on the *quality* and *transferability* of the meta-inference drawn from all three analyses (Teddlie & Tashakkori, 2009, p. 28). The quality of mixed-method research should be judged in two ways: first, granularly, in terms of the individual method and data collected at each step of the research process, and, second, holistically, in terms of the inferences and interpretations drawn after the studies have been integrated (Teddlie & Tashakkori, 2009, p. 254). This has been conceptualised elsewhere as 'design quality' (the appropriateness of the chosen methods) and 'explanation quality' (the plausibility of the obtained results and inferences) (Venkatesh et al., 2013, p. 44). I briefly self-audit the analytical strategy of this inquiry along these two categories.

4.7.1 Design quality

The main factors indicative of design quality are the *appropriateness* of the research design and its *adequacy* to address the research questions posed and to support inferences that correspond with and contribute to the academic literature (Venkatesh et al., 2013). The presented mixed-methods inquiry fulfils these criteria to satisfy the design quality aspects of good mixed-methods research as follows. First, despite research into the platform economy ranking high on research and policymaking agendas, high-quality longitudinal data are not widely available. This study addresses this paucity by drawing on the data sources of discursive textual data on public

platforms as well as tapping novel household panel data covering the issue. The limited availability of reliable data affects the choices of appropriate analysis strategies. All three analyses presented here draw on established methods with demonstrated applicability to the types of data analysed that nevertheless remain underutilized in the academic literature. Second, the research questions derived from Arendtian theory demand a broad approach to the phenomenon that cannot be covered with a single quantitative or qualitative empirical inquiry. This dissertation is composed of three inquiries, which in combination reveal insights into all three dimensions of human activity (labour, work and action). The evidence generated by the empirical section of this research is therefore sufficient to investigate the link between the platformisation of labour and work and political action.

4.7.2 Explanatory quality

Venkatesh et al. (2013) suggest that the quality of the integration of the findings (or metainference) can be determined by their efficacy (the degree to which each analysis contributes to the whole), transferability (the degree to which the findings are generalisable or useful) and correspondence (the degree to which the reason for a mixed-methods study is satisfied). *Plausibility* (the overall credibility of the provided explanation) has also been proposed as an appropriate criterion to assess the overall quality of the abductive reasoning process (Sætre & Van de Ven, 2021; Teddlie & Tashakkori, 2009) and can be thought of as a function of the aforementioned criteria. These criteria are fulfilled in this dissertation as follows. First, the integration of the abductive inquiry is efficacious in that its individual components correspond with and address aspects of the theoretical framework. There is no redundancy or duplication between the findings of the three analyses and each advances the *integrated* understanding significantly, *blending* into one coherent narrative about platformisation. Venkatesh et al. (2013, p. 44) emphasise that the findings do not have to lead to one unified understanding of the phenomenon but, in the spirit of the abductive process, can also surface tensions or inconsistencies which prompt a reframing of the theoretical understanding of the phenomenon. This is precisely the case in the presented inquiry, where the 'anomalies' of the third analysis uncovered the duality inherent in platformisation, which only becomes evident through the contrast provided by opposing findings. Second, the transferability of the findings is warranted by the extensive positioning within the lively research context on platformisation. In the discussion (Chapter 6), the reviewed literature is directly addressed and suggestions are made for how the theoretical

insights from this inquiry can inform future research. Third, the findings presented in this dissertation (Chapter 5) *correspond* with the original objectives of the mixed-methods abductive inquiry. The adopted approach provided both the appropriate scope—a macro-level perspective of the dynamics of gig work—and the necessary level of detail—an in-depth qualitative reading of workers' experiences—which would not have been achievable with a conventional qualitative or quantitative research design.

4.8 Limitations: Arendt & social science

One key difficulty in applying Arendtian theory in the IS field is a superficial incompatibility between the Arendtian approach and the research fields that provide the empirical evidence base of this domain. Arendt openly rejected the notion of a *social science*, in particular *sociology*, which she saw as engaging in a "functionalism", that "obsessively seeks to turn a peculiar episode or phenomenon into something that it is not, denying its reality and claiming that it is a symptom or token of a deeper substratum remote from the world of appearances" (Baehr, 2002, p. 808).

Arendt particularly distrusted the "compulsory process of deduction" that follows from any ideology, which overpowers human's "capacity to begin" anew (i.e. action) by coercing them to follow an imperceptible 'logic' (Arendt, 1951/2017, p. 622). To interpret Arendt strictly means to reject any reductionism of individuals to members of certain groups, and instead embrace the radical plurality that underpins her thinking. The figurative *animal laborans, homo faber* and *zōon politikon* are not archetypal forms of humanity but of humanities' basic activities. This outright rejection of biotic, religious or other group factors and her definition of plurality as "the fact that men not Man live on earth and inhabit the world" (Arendt, 1958/2018, p. 7) in combination with what has been criticised as an inability (or unwillingness) to engage with certain forms of discrimination, has put Arendt at odds with contemporary streams of academia, such as intersectional theory (cf. Jones, 2015, Footnote 20). According to Arendt, nothing binds human beings together apart from their ability to begin anew and act into the world.

I argue that contemporary social science and in particular the availability of computational methods are valuable tools for studying society as a plurality of individuals insofar as they are not applied reductively (e.g. Salganik, 2018). They are compatible with Arendtian theory as long as the analysis focuses on 'humans-in-activity' rather than the nature of the humans engaging in it. In other words, engaging in a career characterised by gig work (which, as a type, can be

differentiated from other careers using social science methods) does not make a human a 'gig worker' per se, beyond their actual engagement in this activity. For example, being a *gig worker* is a highly differential practice that depends on context, social embeddedness and personal history. Using the social sequence analysis method, the tightly packed 'gig economy' terminology is not further reduced but clarified and expanded through a method of distinction, an exercise directly in the Arendtian tradition. The topic modelling and qualitative content analysis methods also drawn on in this dissertation both rely on community discourse as data sources, which are analysed to reveal individuals' experiences when they are active on digital platforms. Discourse analysis distinguishes 'language-in-use' from 'language-in-action' (Gee, 2001), which resonates with Arendt's discovery of the intimate connection between speech and action, when she claimed that it is "with word and deed [that] we insert ourselves into the human world" (Arendt, 1958/2018, p. 176). Traces of speech can therefore provide valuable insights into the action underpinning it.

I further propose that it is consistent with Arendt's method, inspired by Walter Benjamin, of resurfacing ideas as historical fragments and recombining them, to turn her analytical apparatus towards contemporary, technology-driven developments of labour, work and action in the platform economy. In summary, the pragmatic approach and overall investigative theme of this dissertation do not contradict Arendt's reasoning and method but draw on it in the generative pattern preferred by Arendt herself.

5 Findings of the inquiry

In this chapter, I present the findings of the abductive inquiry in two groups, one confirming *platformisation* as a form of Arendtian *labourisation*, i.e. a skewing of the tripartite configuration of human activity towards labour, and the other providing evidence of the reverse dynamic by demonstrating how new forms of work and action are enabled by platformisation. I collate them under the titles 'the platform as factory' and 'the platform as polis', respectively, and draw on this evidence in the following chapter to develop a theoretical perspective of *platformisation* as enabling and inhibiting political life based on the Arendtian *vita activa* (Figure 5).

5.1 The platform as factory

I begin by outlining the research context of *the global gig economy* and proceed to present the findings of the first two analyses. What emerges is that *platformisation* gradually shifts human activity towards labour in line with Arendt's prediction of the impact of technology use (Arendt, 1958/2018, p. 132).

5.1.1 Platformised labour and work in the global gig economy

The gig economy promises a flexible, individualised—even liberalised—future of work, an area of life that has been rapidly and vastly reshaped by technology since the beginning of the 21st century (Liang et al., 2022). It is interpreted in this analysis as encompassing both the *local* and *remote* forms of the overt platform economy⁶¹. Gig work is presented as something that can be tapped into on demand and moulded flexibly to personal preferences and private schedules, suited to all kinds of different backgrounds, skill sets and motivations, irrespective of geography (Munoz et al., 2022; Wang et al., 2020). An increasingly vocal counter-narrative in the academic literature refutes this characterisation, instead pointing out the substantial precarity and vulnerability that can arise from such relatively novel platform-driven forms of non-standard work (Anwar & Graham, 2020a), where workers are submitted to algorithmic control (Wood et al., 2019a).

⁶¹ A distinction is sometimes drawn between *gig work* (local) and *crowdwork* (remote) (Tassinari & Maccarrone, 2020).

There is a broad agreement in the academic literature that the platformisation of work represents a 'future of work' among others (Vallas & Schor, 2020). Changing modalities of work, such as those brought about by industrialisation, the rise of the 'office' or, in this case, digital platforms, occupy a central role in Arendt's critique of modernity (Arendt, 1958/2018), as they function as the analytical point of departure for her investigation of the possibility of political action under contemporary conditions of labour and work (König, 1990). The final 'ontological reversal' that Arendt describes in *The Human Condition* is the rise of labour to become the central form of human activity around which society is structured (Arendt, 1958/2018, pp. 320–325). Gig work represents a departure from the 'society of jobholders' (Arendt, 1967/2020, p. 309) observed by Arendt due to its geographical and temporal detachedness and dispersedness and the introduction of the algorithm as an intermediating third in the work relationship (Lata et al., 2022). Therefore, gig work could easily represent a further intensification of the *labourisation* process, which finally captures all areas of life by filling and monetising 'gaps' between activities. Alternatively, it could signify a 'reclaiming' of value-driven and self-directed work on the back of technological development that is appropriate and adjusted to a contemporary way of life.

The following sections present the findings of the first two analyses as a progressing narrative from an overview of the modalities of gig work to the experiences of remote gig workers. First, the analysis of workers' occupational life courses on their way *into* and *out of* the gig economy provides macro-level insight into how work, through *platformisation*, is increasingly rendered as labour. Based on these findings, *remote* platform work ('crowdwork') is identified as a particularly salient category in terms of the experience of gig work and, in the second study, investigated in-depth. This presentation deviates from the chronological order of the studies, in which the topic model preceded the social sequence analysis, to reflect the final understanding arrived at through the iterative abductive process (Table 2).

5.1.2 Findings from a sequence analysis of gig workers' career paths

This analysis investigates a central claim often made in conjunction with platformisation, that gig work represents a 'future of work', and puts it to the test by drawing on representative household panel survey data from the UK to understand how individuals enter and leave gig work. Using social sequence analysis, clustering and logistic regression, I unravel the 'work life courses' of UK gig workers to better understand how and why they turn to platforms to earn a living, what their characteristics are as a demographic group and whether digital labour platforms are likely to be permanent fixtures or transitory phases in their lives. The findings illustrate the effect of *platformisation* on the triadic configuration of labour, work and action and, by extension, on political life.

In the following sections, I first introduce metrics of the overall composition of the *UK* gig economy and then outline based on the social sequence analysis how individuals transition *into* and *out of* the gig economy. The United Kingdom is a useful context to demonstrate the proliferation of gig work for two reasons. First, gig work in the UK is well researched (e.g. Balaram et al., 2017; Huws et al., 2019; Lepanjuuri et al., 2018; Pesole et al., 2018). Second, new high-quality data on the UK gig economy have been made available in the latest two waves of the UKHLS panel study, which, for the first time, allow for a longitudinal perspective on gig workers' occupational states using reliable secondary data.

Metrics of the UK gig economy. The first noticeable finding from an analysis of the weighted means of the survey waves conducted in 2020 and 2021 was that the overall headcount of UK gig workers is lower than most figures reported in the literature, which proposed estimates between 3.17% - 10.8% for combined *remote* and *local* gig work (e.g. Balaram et al., 2017; Huws et al., 2019; Lepanjuuri et al., 2018; Pesole et al., 2018).

In 2020, 1.44% [1.25%, 1.62%] of the adult UK population⁶² reported engaging in gig work through a "website, platform or app" during the last month⁶³. In 2021, this figure rose to 1.70% [1.50%, 1.89%], indicating an overall increase in the number of active gig workers. Since the survey only queried individuals on whether they undertook gig work during a limited (one month) timeframe preceding the interview, it can be assumed that the annual figure of gig economy participation is significantly higher.

When comparing the demographics between the two waves (Table 5), taking into account the standard errors, the average *age*, *sex* (male / female) and *area* (urban / rural) did not diverge significantly between 2020 and 2021. Overall, gig workers were younger than the national average (50.64 years in 2020 and 50.77 years in 2021). A higher percentage of gig workers' reported to

⁶³ See:

⁶² The adult UK population (15 and over) was estimated to be 55.106.000 strong in mid-2020 and 55.427.000 strong in mid-2021 (National Statistics, 2020).

https://web.archive.org/web/20230403160045/https://www.understandingsociety.ac.uk/documentation/mainstage/d ataset-documentation/variable/gelist1 (accessed 03.04.2023).

have obtained some form of degree (48.39%) in 2021 compared to the previous year's cohort (44.14%), though the relatively high standard error means the estimates should be compared with caution. Further, the number of individuals participating in the gig economy who indicated they were not born in the UK was lower at 16.38% compared to 21.49% in 2020.

Table 5

Sociodemographic characteristics UK gig workers in 2020 and 2021

Variable	2020	2021
Age	40.61 [1.04]	42.12 [.90]
Sex		
- Male	64.12% [3.13]	64.82% [2.68]
- Female	35.88% [3.13]	35.18% [2.68]
- Missing	0	0
Area		
- Urban	74.78% [2.83]	75.65% [2.35]
- Rural	24.66% [2.83]	24.35% [2.35]
- Missing	0.56 [.23]	0
Born outside UK		
- Yes	21.49% [2.94]	16.83% [2.12]
- No	78.51% [2.94]	83.17% [2.12]
Highest educational attainment		
- University degree	33.22% [3.14]	33.95% [2.71]
- Other degree	10.92% [1.99]	14.44% [2.06]
- A-level	26.96% [2.95]	23.23% [2.34]
- GCSE	15.26% [2.32]	18.14% [2.22]
- Other	6.75% [1.81]	6.32% [1.62]
- No qualification	5.49% [1.55]	3.09% [0.91]
- Missing	1.40% [0.72]	0.83% [.03]

Note. Age presented in years. Standard errors in square brackets. Expanded from an earlier version (Charlton-Czaplicki & Hukal, 2022) by including data for wave 12 (2021) in the analysis.

Entering the gig economy. The cluster analysis yielded six distinct and interpretable clusters that form a typology of the occupational trajectories leading up to participation in the gig economy (Figure 11). These are described in detail below, from the proportionally largest to the smallest cluster⁶⁴:

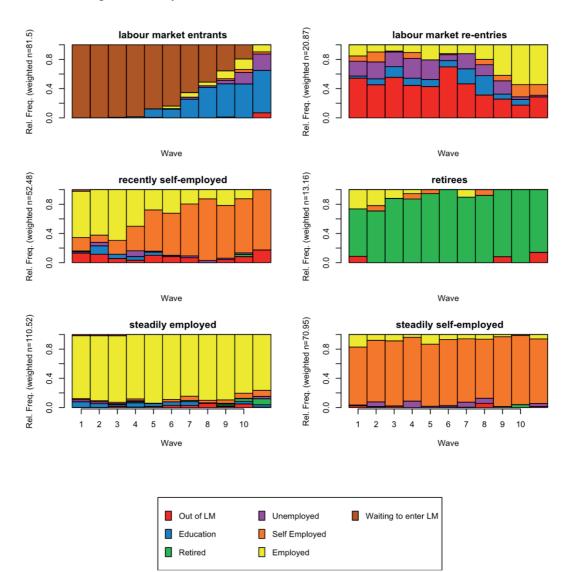


Figure 11

State distributions per cluster for UKHLS waves 1-11

• Steadily employed: This cluster, making up 27.52% of the number of gig workers in the 2020 sample, was characterised by largely unbroken spells of conventional full-time or

⁶⁴ The descriptions below were adapted from an earlier version of this analysis presented by Charlton-Czaplicki & Hukal (2022).

part-time employment (EM). Gig workers whose occupational history fell into this cluster had a median age of 44. They mostly engaged in local *manual services* (30.71%) and remote *non-manual tasks* (30.44%). They less frequently undertook *delivery services* (19.46%), *transportation services* (18.45%) or *courier services* (0.93%).

- Labour market entrants: The occupational trajectories of individuals who fell into this cluster, making up 22.37% of the sample, exhibited a major transition from ('waiting') WA to ('education') ED or ('employment') EM. First-time labour market entrants were the youngest group, with a median age of 19. They mostly engaged in *manual services* (49.67%) and remote *non-manual tasks* (22.34%). Compared with those steadily employed, they more often undertook *courier services* (7.69%). *Delivery services* were undertaken by 12.94% and *transportation services* by 7.35%.
- Recently self-employed: The third-largest cluster was defined by transitions from employment (EM) to self-employment (SE) and comprised 20.80% of the sample in 2020. Individuals in this group were on average (median) 42 years old and prominently represented in the *non-manual tasks* (54.07%) category. The less frequently engaged in *manual services* (23.18%), *delivery services* (10.30%), *transportation services* (11.98%) or *courier services* (0.46%).
- Steadily self-employed: This cluster, making up 18.57% of the number of gig workers in this analysis, was characterised by continued spells of self-employment (SE) and exhibited a higher-than-average median age of 52. As with the *recently self-employed*, those with steady trajectories of self-employment tended to work *non-manual tasks* (44.62%) remotely. A substantial proportion of workers in this cluster engaged in *transportation services* (25.79%) and *manual services* (25.86%). *Delivery* (2.59%) and *courier services* (1.14%) played only minor roles in this group.
- Labour market re-entries: The most complex among the identified clusters, this group of individuals experienced a transition from either *unemployment* (UN) or another state of being *out of the labour market* (OL) into *employment* (EM) or *self-employment* (SE). Comprising only 7.16% of the sample, this was the second-smallest cluster and individuals falling into it had a median age of 39. *Manual services* (56.26%) made up the largest form of gig work in this cluster, followed by remote *non-manual tasks* (22.62%), *courier services* (13.84%), *transportation services* (5.89%) and *deliver services* (1.39%).

• **Retirees**: The smallest cluster, comprising only 3.58% of the sample, was defined by largely unbroken spells of *retired* elements (RE) and had the highest median age of all clusters (71.5 years). The main gig economy activities undertaken by this group were *manual services* (47.91%) and remote *non-manual tasks* (35.41%). 16.68% of *retirees* engaged in *transportation services*, and none performed *courier services* or *food delivery*.

Leaving the gig economy. In the logistic regression model of trajectory type on whether an individual reporting gig work activity in 2020 remained in the gig economy in 2021, i.e. whether gig economy activity was reported in both waves (Table 6), the group *labour market entrants* was coded as the reference level (intercept) against which the other trajectory types were compared. Further, gig workers' *sex, age* and *location* (urban/rural) were included among the covariate.

Table 6

Results of a logistic regression of trajectory type, age, sex and location on whether individuals reported gig economy activity in both years

	Estimate	Std. Error	z value
(Intercept)	1.31	.80	1.63
labour market re-entries	13	1.14	11
recently self-employed	2.36***	.59	4.02
retirees	2.79**	1.06	2.64
steadily employed	1.19*	.57	2.08
steadily self-employed	2.14**	.65	3.27
age	04**	.01	-2.88
sex	99**	.35	-2.81
location	-1.00*	.42	-2.41

Note. *** p < .001, ** p < .01, * p < .05.

The estimates for those in the reference group (first-time labour market entrants) demonstrated that the odds of remaining in the gig economy in the following year were not significantly different from zero. In contrast, the *recently self-employed* and *steadily self-employed* both showed significant increases in the odds ratio (ten-fold and eight-fold, respectively) in comparison to the reference group. The odds of individuals in the *retirees* group remaining in the gig economy in the following year were 16 times higher than those of *labour market entrants* group, a significant effect. Those *steadily employed* showed a three-fold increase, whereas no statistically significant difference in the odds ratio could be detected for *labour market re-entries*. One additional year of *age* led to an approximately 4.1% reduction in the probability of remaining in the gig economy, whereas reporting *female sex* and *rural location* both led to a 63% reduction.

Summary of the key findings. Based on the findings presented above, a range of insights about the contemporary UK gig economy can be derived that reveal where it is situated within the Arendtian reference framework of labour, work and action. First, the findings show that gig work was a regular fact of life for 1.7% of the adult UK population in 2021 and, by extension, millions worldwide. On the face of it, this figure is lower than the figures reported in the reviewed literature, suggesting that the rhetoric on the rapid expanse of gig work might have been hurried or alarmist in the past (e.g. The Economist, 2018)⁶⁵. Overall numbers of gig workers have increased in the UK year on year between 2020 and 2021, corroborating insights from the literature that suggests the gig economy is growing in size (e.g. Meijerink et al., 2021; Urzì Brancati, et al., 2020). Different measurement approaches could explain some variation in the findings across different studies, but the most convincing explanation is that only as reliable representative data about the gig economy become available, will its true scope emerge. I argue that the figures indicate that the gig economy indeed represents *a* (but by no means the only) *future of work* that is characterised by *labourisation*. To bolster this assertion, I interpret the typology of gig workers' occupational histories developed above.

The findings suggest there are six distinct pathways (or occupational trajectories) on which workers enter the gig economy (i.e. self-report that they undertook platform work within the past

⁶⁵ See also

https://web.archive.org/web/20221213134240/https://workingclassstudies.wordpress.com/2015/02/16/taskers-the-precariat-in-the-on-demand-economy-part-one/ (accessed on 13 December 2022) for an early comment predicting one in three labour transactions traversing the platform economy by 2025.

month of the survey). These can be seen as typical examples of gig workers' *personal occupational context* and, based on the results of the contingency table test (see Chapter 4.5.3) and logistic regression model, they are related both to the *type of gig work* performed (i.e. *local* gig work, such as transportation, or the *remote* kind, such as online freelancing) as well as workers' *outbound trajectories* (i.e. whether they remained in the gig economy at the next point of data collection one year onwards). Further, the presence of trajectory types characterised by a major life transition (e.g. leaving education, re-entering the labour market or becoming self-employed) in the typology suggests that the timing of major events determines which gig work individuals take up and whether individuals remain in the gig economy. Finally, the large age differences between the identified groups also suggest that gig work is integrated into the *work life course* in substantially different ways.

The presence of conventionally out-of-the-labour-market groups (*labour market re-entries* and *retirees*) in the developed typology suggests that gig work is expanding into new strata of society that may be turning to the gig economy out of economic dependence to supplement their pensions or earn extra cash during turbulent times. Further, it is serving as a temporary *bridge* into work for first-time *labour market entrants*. However, gig work has been criticised in the literature for creating new intra- and interorganisational boundaries limiting workers' careers (Kost et al., 2020). The gradual *degradation* and "fissuring" of a 'workplace' (Weil, 2014 cited in Wood et al., 2019b, p. 2) that serves as a space for encounters (and, e.g. workplace learning opportunities) could indicate that groups economically dependent on gig work are additionally subjected to increasing social isolation in their occupational context.

Those individuals with a personal *context* characterised by *self-employment* had significantly higher odds of remaining in the gig economy long-term than other groups. *Labour market entrants*, whose work life courses are characterised by a major transition from education to employment or self-employment, exhibited the opposite effect and had lower odds of continuing as gig workers. It is noteworthy that *remote* forms of gig work dominate among the prior groups, whereas the latter prefer *local* manual gig work. This supports claims from the literature that *remote* gig work is often associated with an entrepreneurial identity (Bellesia et al., 2019; Cedefop, 2021). In turn, this indicates a likely segregation of platform careers between *remote* and *local* platform work, with one group more likely to turn to the gig economy for reasons of self-actuation and goal-orientation and the other for economic support or to facilitate a life-course transition. This suggests that genuinely novel distributed work relationships are worth

investigating further, since *remote* digital labour platforms are more likely to host long-term goal and *ends*-oriented entrepreneurial activities.

To conclude, the findings from the first analysis presented in this section indicate that: 1) gig work is already *a reality of work* for millions worldwide and the platformisation of work is an ongoing process; 2) people pick up gig work in both stable and transitory phases, including when entering and departing the labour market, suggesting *platformisation* expands labour temporally along the life course; 3) the lack of a shared *workplace* exposes individuals to 'cog-in-the-machine' type work arrangements; and 4) that remote forms of gig work are the most salient to understand how platformisation is reconfiguring work, since they were most likely to be associated with major life course transitions and entrepreneurial identity. The second analysis picks up this thread and investigates the experience of remote gig work in-depth.

5.1.3 Findings from a topic model of gig workers support communities

This analysis draws on the results of a topic model of remote gig workers' discourse to elicit their perception of the platform-mediated work they engage in. Remote gig workers engage in project or task-based work through digital platforms. In particular, this analysis explores how platformisation affects the quality of the work process performed by workers and how changes in the mode work is conducted might affect the durability of the final work product. The findings contribute an understanding of the effect of *platformisation* on *work and its products*. Having credibly established a prominent—albeit still peripheral from an overall labour market perspective—role for the *overt* (remote) gig economy in the previous section by adopting a sweeping, macro-level perspective, this analysis focuses on the lived experience of participation in the remote gig economy rather than its metrics. Despite reliable measurements of the size and scope of the gig economy being rare, the reviewed literature has shown that remote online work mediated by digital platforms is already a fact of life for millions worldwide and that the market for remote gig work is expected to grow significantly over the coming years (Kässi et al., 2021).

Results of the topic model. The results of the topic model are summarised in Table 7. In this section, I aggregate the insights from my reading of the most representative threads under various topics into thematic clusters and provide a thick description of each: *geography*, *community spirit, algorithmic management, up- and reskilling, profile curation* and *clerical and administrative* labour. It is noteworthy that only very few of the analysed discussion threads were initiated by clients and most followed a 'question—answer' format where remote gig workers

approached the community with a specific, platform-related question or problem and received commentary or guidance from other users. Requests for mentoring (non-specific) and the sharing of success stories or bragging were also commonly observable.

Table 7

Results of the topic model (Charlton-Czaplicki & Márton, 2022)

Label	Keywords (stemmed)	Description	θ
language skills & work	translat, languag, nativ, proofread, speaker, school, grammar, academ, transcript	Discussions around language-centric work, such as translation or transcription.	0.04
time tracking & privacy	log, tracker, manual, screenshot, track, screen, comput, mouse, desktop	Providing proof-of-work for gigs, best- practice, avoidance tactics, and perceptions of platform surveillance systems.	0.05
enterprise & highly paid gigs	opportun, team, meet, employ, talent, consult, enterpris, specialist, vet	Well paid work and how to obtain it on alternative platforms and through "enterprise" programmes for particularly successful workers.	0.05
technical skills & work	code, sampl, letter, softwar, dev, wordpress, program, javascript, theme, code, php, css	Accessing tech work, mainly programming and web development, and how to advertise tech skills.	0.06
scores & metrics	deliveri, impact, hurt, stat, automat, count, late, inact, calcul, metric, perk	Support with and discussion about platforms rating/scoring algorithms and their reverse engineering.	0.1
geography	india, transferwis, philippin, asia, currenc, usd, locat, american, wage, local	Issues arising around workers' location and competition with workers from the Global South.	0.03
payment & terms of service	suspend, bank, paypal, verif, card, address, violat, payon, withdraw	Support in utilising payment services and how to deal with money unfairly withheld.	0.08

Label	Keywords (stemmed)	Description	θ
profile & rates	rais, talent, badg, rise, game, slow, awesom, congrat, lucki	Fine-tuning profiles, determining optimal market rates, and hacking success scores.	0.1
creative work	logo, imag, photo, pictur, graphic, illustr, artist, watermark, anim, artwork, thumbnail	Communication around challenges arising when doing graphical / artistic work.	0.06
tax & legal	agenc, tax, legal, law, agreement, lawyer, employe, vat, nda, ir, lawyer	Region-specific taxation, such as required VAT rates, and discussions on how to handle/resist non-disclosure agreements.	0.04
transactions & contracts	revis, disput, escrow, deadlin, releas, scope, arbitr, mediat	Issues with clients and guidance on how to resist exploitative pricing practices.	0.1
social media & advertising	social, sale, media, promot, linkedin, pro, facebook, traffic	Alternative channels of obtaining work and promoting oneself, especially social media.	0.05

Of the 240 threads analysed, the majority were concerned with the modalities of work on platforms rather than the substance of the performed work. This is expected, since remote gig work has been shown to be heterogeneous, involving different skills and specialisations, such as graphic design or programming (Cedefop, 2020). The users coming together in the analysed Reddit communities share a platform but not necessarily a line of work or professional orientation, though they might turn to other social communities for such purposes, e.g. Stack Overflow. The observed intense discourse about optimisation (of workers' *profiles, selves* or the *modalities* of platform work) corroborates insights from the literature that suggest high 'work-for-labour' requirements in the gig economy that are not covered by worker's hourly rate or project-based remuneration (Wood et al., 2019b).

In the following sections, I describe the six thematic clusters representing key aspects of the experience of remote gig economy work. Specific topics are referenced in **boldface**.

Geography. Despite the advertised globality of the multisided OLMs, workers' physical location featured prominently as a theme of discussion. It emerged that the physical location of

the platform providers shaped the self-reported experience of workers by tethering them to the United States (where both platform providers are located) and its economic regime. One example of this US-centredness is the internal USD denomination of 'cleared' funds (i.e. remuneration for finalised work) even when the account is nominally held in the workers' local currency (e.g. GBP). As one worker explained:

I just think its madness that even after you have done your work, earned the money, waited for it to clear, youre still succeptable [sic] to it diminishing due to the exchange rate! (anonymous Reddit user)⁶⁶

Another frequent theme related to workers' geography was discriminatory treatment of workers from the Global South. An immediate advantage for the clients of OLMs is to gain the ability to access workers from less wealthy geographies, where, for example, a graphic designer would be able to make ends meet for a significantly lower wage than in richer economies. The threads associated with the **geography** topic contained lively discussion about what an acceptable wage might be for a specific skill, despite the 'global minimum wage' implemented across the platform. One user pointed out that while cost of living might vary, much of the skilled work performed through OLMs depends on a technical setup (or "rig"), which would impact the lower paid workers disproportionally:

Most of the tech stuff is priced more or less the same internationally, many third world countries do not manufacture vehicles. So to buy a vehicle or upgrade one's work pc, he would have to work 15 times more [...] (anonymous Reddit user)

Workers were also worried about their physical location negatively impacting their attractiveness to clients, due to clients' ability to filter the available workforce by geography. In one instance, an American user worried that their current temporary location in Turkey would be detrimental to their success on Upwork and whether they should 'spoof' their physical location by circumventing Upwork's location checks. Other users strongly cautioned against this approach, warning that this would constitute fraud, since "location lying is one of the main reasons

⁶⁶ All verbatim quotations are posts or comments by anonymous users on the Reddit platform extracted from the corpus used to run the structural topic model. The usernames and posting dates are potentially identifying information and are not repeated in this section.

for people being kicked off the platform. If you're not physically in the US, you must not pretend that you are, that would be defrauding clients" (anonymous Reddit user). The rigid controls over 'authentic' geographical location presented a dilemma for remote gig workers who had to choose between potentially accepting lower wages or receiving less paid work due to their geography or risking exclusion from the platform and payment processing system.

Community spirit. In some instances, newcomers to remote gig work approached the community seeking general guidance and were advised to team up with experienced members to avoid the numerous pitfalls involved in working on the platforms. Replying to a new community member, one user suggested, "[...] you should really have a mentor or coach or, you know, supervisor to make sure you don't screw up in the one million ways there are to screw up" (anonymous Reddit user). Beyond asking for general mentorship, remote gig workers frequently approached the community when they faced specific issues with clients or the platform providers. Such discussions, often involving a financial element, were usually associated with the payment & terms of service or transactions & contracts topics. Workers traded advice on how negative situations, e.g. bans or frozen accounts, might be mitigated by social means (i.e. involving clients). One community member suggested that "[...] if you have a client you have a good relationship with, [...] ask them to complain to upwork about your absence and vouch for you. A similar thing happened to me (stuck with them not accepting my proof of address) and that's what worked in my case" (anonymous Reddit user). Other mitigation strategies that were shared involved moving to other platforms, e.g. social media sites, to draw the case out into the public. One community member proposed that "since you can't access the forum, I suggest you make some noise on Facebook about it" (anonymous Reddit user). A further issue discussed by experienced gig workers (under the enterprise & highly paid gigs topic) was career advice and strategies for 'exiting' platforms for more scalable endeavours. This was expressed by one community member as follows:

Upwork is not scalable @ all. [...] You must work your way out of Upwork and the end goal should be to eventually close your Upwork account of your own volition. [...] As has been mentioned by another poster, on Upwork you are the business. (anonymous Reddit user)

The notion of acting as an *entrepreneur* or company while gig working was commonly repeated, including the associated significant *clerical and administrative work*. What constituted

ethical freelancing proved a contentious point among remote gig workers in the community, with some areas of work, mostly related to *writing work* (under the **language skills & work** topic). Academic writing, completing students' essays against payment, is increasingly a matter of concern for universities (Walker, 2019) but frowned upon by users in the remote gig working community on Reddit. As one user put it:

Dishonest freelancers such as you are gumming up the works for the honest and ethical freelancers. You are encouraging the cheating clients and are contributing to Upwork's bad reputation. (anonymous Reddit user)

Any degradation of the platforms' reputation might translate into a worse working situation for other remote gig workers, though some users on the platform did not perceive *academic writing* to be problematic, indicating a chasm in the community on ethical and moral standards of online freelancing.

Algorithmic management. The discussion threads associated with the topics **scores & metrics** and **time tracking & privacy** made frequent and explicit mention of the algorithms that control the remote gig work experience. Community members discussed how unannounced changes to the sorting and placement algorithms or shifts in how their 'personal success scores' were calculated would immediately impact their ability to attract well-paid gigs:

The algorithm they use to rate clients and freelancers is a dumpster fire. I have no idea why they made such a simple system so complicated. (anonymous Reddit user)

The general atmosphere of discussion in these threads was adversarial, with a we-vs-themattitude prevailing and the role of the platform generally perceived either as neutral or malevolent. Collectively reverse engineering the algorithms to gain an advantage and 'game the system' was a frequent feature of discussion and workers were required to adapt to its opaque machinations:

They keep the specifics about how the algorithm works pretty secret, so it can't be manipulated into irrelevance, so it's hard for anyone to say "if X, then Y" with 100% certainty. I just wanted to share my own experience as a point of reference. (anonymous Reddit user)

One form of limited worker protection against fraudulent clients is granted to remote gig workers only in exchange for their opting into the use of extensive surveillance software, which includes permission to monitor workers' screens and keyboard activity. Remote gig workers reported adapting to this by scheduling their personal lives and controlling their biological needs accordingly. One worker described their experience as follows:

I still use the app every chance I get, and couldn't care less that it records screenshots and perhaps keystrokes, but it can be a nuisance on a long job because you have to try to stop and start it on 10 minute intervals if you don't want to shortchange yourself or the client and that deters me from taking breaks to stretch, hydrate, whatever. Or I'll get a phone call 5 minutes into a segment and let it ring instead of answering. (anonymous Reddit user)

Opinions about this intrusive monitoring among workers were mixed, with some appreciating the protection against fraud and non-payment it provided them and others describing the activity as "spyware-like", stating they felt like "being watched at all times" (anonymous Reddit user). One user claimed they "hated it at first, but have grown to love it because of the protection" (anonymous Reddit user). In another instance, a worker provided advice to others on how best to collaborate with the surveillance software, suggesting they "don't overlook the fine print about adding memos", short fragments of text describing what was visible on the recordings for human verification by the platform, as this was "[...] required for payment protection" (anonymous Reddit user).

Upskilling & reskilling. The acquisition and improvement of skills are frequently touted as central affordances of OLMs in the platform work narrative (e.g. Cedefop, 2021) and were key reason workers turned to the community for advice. For example, one user asked:

"I also thought of started learning some other skill online but don't have any specific idea? Any recommendations?" (anonymous Reddit user)

This specific worker was promptly rejected by other community members, who pointed out that the platform work landscape was gradually shifting towards a more competitive environment due to increased competition and more discerning clients: "That was 8-10 years ago though and then the platform would accept new people trying to learn a skill. It's much more competitive now. Clients want to know you can do XYZ before they hire." (anonymous Reddit user)

Workers adjusted to 'picky clients' by deliberately underselling their work or by avoiding potentially difficult situations. For example, one remote gig worker claimed they were "missing some formal training for the field and don't want client expectations to exceed my skills, so I'm going about it pretty slowly" (anonymous Reddit user). In contrast, another worker claimed that self-assuredness and high outward confidence in one's skills functioned as a powerful signalling mechanism, since: "buyers will trust a \$50/hr provider more than a \$20/hr provider" and "too many freelancers are racing to the bottom" (anonymous Reddit user).

A large proportion of the discussions related to skills and their value took place under the **technical skills & work** and **profiles & rates** topics. Workers traded tactics for optimising their profiles and signalling their worth to prospective clients, such as *creating a portfolio* and showcasing a specific piece of work.

Career options and the impact of working on platforms on an individual's professional development also featured in the data set, in particular under the topics of **language skills & related work** and **enterprise & highly paid gigs**. *Multi-homing*, i.e. the strategy of branching out by using multiple platforms to obtain work and avoid overexposure to individual platform providers, a dynamic frequently mentioned in the academic literature, was recommended to novice remote gig workers in particular. As one community member claimed: "if you are starting your freelance career, you should try diversify your income streams and try and get work from many different places and people, and not depend on one website, especially when they have the power to change the rules on a whim" (anonymous Reddit user). Other, more experienced workers openly discussed abandoning Upwork as their "main source of income" (anonymous Reddit user), suggesting they continued gig working part-time. This prompted another user to ask: "What platform/career/etc. did you switch to? Is there a better platform available?" (anonymous Reddit user)

The prospect of *career progression* through remote gig work led to contention between workers in one case, when a user suggested "uniting" to "experience a stronger sense of community" and to "get a chance at progressing in your career" (anonymous Reddit user) and was rebuffed by another community member, who retorted: "Unite? Why do we need or want to unite? [...] mo clients...mo money. That's what I want from a platform. I don't give a shit about fees if I can justify the cost against earnings" (anonymous Reddit user). This suggests there are at least two polar approaches to remote gig work, one communitarian and the other individualistic.

Profile curation. Self-presentation and profile curation featured heavily under the profile & rates and scores & metrics topics. One of the powerful signals available to remote gig workers is their hourly rate. Users discussed different strategies to attract clients, with one user suggesting to "[r]aise your rate until you can't get jobs anymore" (anonymous Reddit user) and then settle on the previous incremental rate to maximise profit and signal competency. Others suggested more refined tactics, advising on the height of the incremental rate increases and the duration of the monitoring period that proved optimal to them. Visibility on the platform's client-worker marketplace depends on a range of opaque factors, including profile composition, rates, work history, geography and the secret search algorithms that determine a workers' placement. Novice remote gig workers frequently turned to the Reddit community to have their profiles examined and optimised after failing initially to attract clients and work. One tactic, portfolio curation and developing an engaging *narrative*, was described by a user as "com[ing] up with one (or at most two) impactful value propositions that you bring to your client [...] then explain why you can make good on that proposition" (anonymous Reddit user). In another situation, a user asked about the merit of including video presentations of themselves and community members discussed the issues with recording high-quality and professional seeming content without the necessary equipment. One user suggested adjusting to the cultural environment of one's work, in their case translations from and to French, by "dress[ing] as your traditional [F]rench girl, with the dressy pants and a striped shirt" (anonymous Reddit user). A common factor among the discussions was the lack of insight into client's viewing behaviour and the features influencing placement by the algorithm.

Clerical and administrative labour. Discussions falling under the topics of **transactions** & contracts and payment & terms of service frequently revolved around the substantial clerical and administrative investment demanded from remote gig workers to obtain a 'liveable' income from their platform work. Workers reported constantly having to manage their relations with their clients and the platform itself. In the case of worker-client relations, this dynamic becomes explicit in the feedback mechanism, which is sometimes exploited to exercise control over workers, who fear their ability to obtain future work might be impaired by negative ratings. For example, one worker complained that clients occasionally "hold freelancers hostage for feedback" (anonymous Reddit user) to approve refunds for work already delivered that are perceived as unjustified or fraudulent. Should the worker refuse to reverse the payment, the quality of their publicly displayed profile suffers. If they grant it, their platform-internal scoring is reduced, placing them in a double bind to appease both the client and the platform.

One worker turned to the community to complain about the "significant amount of time to coordinate" (anonymous Reddit user) their navigating local tax codes took them. The double burden of navigating both local and US requirements touches on the **tax & legal** and **geography** topics. While the platforms rejected fiscal responsibility (leaving it up to the workers to comply with tax laws and manage themselves as *micro-businesses* or *-entrepreneurs*), they were known in the community to radically enforce their own fee payments, with one user claiming "[the platform] does not play when it comes to diverting cash" (anonymous Reddit user).

Summary of the key findings. In this section, I link the results of the topic model and my insights from the qualitative analysis of the most representative discussion threads for each identified topic to the existing academic literature on the experience and conditions of remote platform work. What became evident from the analysis of the topic model and the extracted discussions is that *platformisation* has a marked impact on the experience of work in multiple ways:

Multiple embeddedness. Despite claiming to operate internationally, the experience of platform work remains structured around physical geography to a significant degree. Workers are placed in a double bind of reporting their authentic location and potentially missing out on work opportunities and pay or risking retaliation (including permanent removal) from the platform provider. This impacts their *labour agency*, which has been described by Coe & Jordhus-Lier (2011, p. 218) as "temporally and spatially variegated", since workers from different geographies have different degrees of freedom to act in order to improve their situations without incurring undue risk. Further, remote gig workers frequently complained about being tethered to the US economic and financial system regardless of their physical location. Due to the platforms' generally being US companies, workers remain embedded in US administrative, legal and financial systems by participating in the remote gig economy.

Micro-entrepreneurship and labour-for-work. The data included instances of workers acting as *micro-entrepreneurs* or 'micro-providers', a concept developed in previous studies about remote online platform work (Lehdonvirta et al., 2019). This involves managing relations with

local tax and labour regimes, for which the platform neglects responsibility. Achieving profitability necessitates performing administrative and clerical duties (such as managing taxation), balancing and optimising one's time and profile by selecting appropriate market signals that achieve the desired results both vis-à-vis the client and the sorting algorithm as well as delivering appropriate work. This amounts to significant "work-for-labour", i.e. time spent in addition to performing one's actual work that is an "inevitable consequence of the manner in which [...] platforms organis[e] labour" (Wood et al., 2019b, p. 13). In keeping with Arendtian terminology and the objective of the inquiry presented here, the phrase 'labour-for-work' more accurately reflects the findings.

Communities of practice or communities of coping? The findings presented in this chapter demonstrate that remote gig workers turn to informal social media communities both for content related discussion, e.g. to strategise about careers and skill development, and circumstantial discussion, e.g. to diagnose difficulties obtaining work through the platform or to seek advice on how to manage problematic client or platform relations. This suggests remote online workers utilise social media communication channels to establish both communities of practice (Wenger, 1998) and communities of coping (Korczynski, 2003). The first is indicated by the instances of *mentoring* and initiation observable in the data. For example, regardless of their professional alignment, profile optimisation and the necessity of adapting to the algorithm affect all remote gig workers. The latter, described as "informal" but "a crucial part of the social relations" of a workplace (Korczynski, 2003, p. 58), is indicated by the presence of self-identified senior workers in the community, offering guidance and exchanging opinions as well as the trading of strategic advice and motivational support, reflecting a communal resilience among online freelancers. The remoteness of their work and the fear of repercussions when conversing through the official platform-provided channels necessitate workers' turning to external platforms to facilitate their discourse. This underlines the stripped-to-the-bone and commodified nature of platform work (Wood et al., 2019b), as platform providers sanitise their OLMs of all inter-worker discourse.

Platform hegemony. The notion that platforms radically enforce their own fees while shifting the responsibility of complying with local governmental tax regimes has been picked up in the literature (Lehdonvirta, 2022). In essence, platforms are assuming *statelike* powers of taxation, setting a minimum wage or even sanctioning of workers (by temporary or permanent exclusion) within their virtual domains. The analysis presented here indicates that platform

workers share the experience of being subject to the rules and regulations of the platform provider (and by extension the platform providers' geography, usually the United States). These findings support the notion that remote gig workers avoid official, platform-provided channels for fear of repercussions and sanctions (Cedefop, 2020; Gray et al., 2016). As a result, workers' abilities to determine the 'rules of engagement' with clients and their sovereignty over the work process are severely curtailed, a contraindication of the inherently self-determined activity of craft-like *work* described by Arendt.

The 'quality' of remote gig work. The topic model revealed instances both indicative and counterintuitive of (craft)work. The variability of tasks and opportunities for skill acquisition point to the kind of flexibility of routines that characterise the work of a craftsperson according to Sennett, who describes their individual career pathways as "[...] not static; they evolve, the craftsmen improve" (2008, p. 266). This is mirrored in the academic literature, which suggests that a high percentage of remote gig workers turn to social media communities to strategise about developing their skill sets (Cedefop, 2020). On the other hand, a significant loss of sovereignty over the work process became evident in the way workers described their experience of adapting their professional and private identities to the demands of opaque algorithmic control. This represents an inversion of *homo faber's* coercion of technology (as a tool) to their needs, suggesting the modalities of *crowdwork* dictate its quality (Charlton-Czaplicki & Márton, 2022). In other words, OLMs resemble *animal laborans'* 'factory' rather than *homo fabers'* 'workshop' (Márton & Ekbia, 2021).

5.1.4 Preliminary summary

To conclude, the findings from the analysis of the *platformisation of (the quality of) work*, drawing on the previous insights from the sequence analysis of gig workers' occupational trajectories, indicate that: 1) despite its superficial globality, the remote gig economy anchors workers from around the world in the geographies of the platform provider; 2) behind the facade of smooth facilitation of client–worker transactions, platformisation shifts a large administrative burden onto the workers; 3) the communities of coping formed by platform workers indicate that platformisation is baring the work process of all but its market-like foundations; 4) in remote platform work, the platform providers control and govern the work-process as de-facto labour market regulators; and that 5) remote gig work is multifaceted, holding promise by liberating (craft)work from its geographical and temporal constraints, but subjecting workers to additional

algorithmic governance, effectively limiting their control over the work process and its products and placing workers in a factory-like arrangement.

5.2 The platform as polis

Based on the findings from the two previous analyses of *platformisation*, which detected a *labourisation* of work in and the removal of the stabilising qualities of *homo faber's work* from the gig economy, I initially attempted to 'bridge' the findings to *platformisation* in another context, the informational work of OSIN/T communities (Venkatesh et al., 2013, p. 39). The incompatibility that emerged (Alvesson & Kärreman, 2007) provided an impulse for me to reframe the findings from the third analysis as complementary (*bracketed*), revealing the opposite of what was expected, i.e. evidence of platform-native *work* and *action*.

In this section, I examine the activity of OSIN/T⁶⁷ communities based on a comparative interpretative-qualitative content analysis of the discussions surrounding the Russian invasion of Ukraine in early 2022, an event that generated an unprecedented amount of coverage on digital platforms (Tett, 2022). The analysis was conducted based on data from two communities on the communication platform Discord in tandem with a collaborating researcher at the Weizenbaum Institute for the Networked Society from May to July 2022 (see also Charlton-Czaplicki et al., 2022; Footnote 57). By analysing the data together and discussing each other's findings after each iteration, we sought to increase the robustness of the analysis.

What emerges from the data is an understanding of how the traditional gatekeepers of information, in particular journalists, were compelled to strike deals and form novel arrangements with online communities to perform their societal function. These configurations are characterised by a range of 'dynamic interactions' (Ohme et al., 2022), in particular *monitoring* and *role changes*. I find that the activity performed by OSIN/T communities differs profoundly from the labourised activity identified in the previous analyses and bears the hallmarks of both 'work' and 'action' in the Arendtian sense without fitting neatly into either category.

⁶⁷ By using the acronym OSIN/T, I attempt to refer to both *open source intelligence* (OSINT) and *open source investigation* (OSIN). In an effort to distance themselves from governmental and military OSIN/T practitioners and "[...] decouple open source information from intelligence work" (Murray et al., 2022, p. 3), some groups tend to reject the label *intelligence* in favour of *investigation*.

5.2.1 The journalistic role on digital platforms

Conventional conceptions of the *public realm* describe it as a linear configuration of political actors, communication media and audiences of recipients. Recipients and political actors iteratively communicate 'public opinion' and 'decisions', the information about which is aggregated in the intermediary public sphere by specialised professionals (Gerhards & Neidhardt, 1990). This understanding aligns with Arendt's insofar as speakers and audiences engage in two-way communication and deliberation while the media, as part of the *world of things*, facilitates their exchanges. The process of verifying knowledge in this scenario falls to journalistic actors, who generate knowledge from information and distribute it to acquiring audiences (Ohme et al., 2022). Again, this is in line with Arendt's notion that *reporters* and *fact-finders* (among other journalistic actors) are responsible for providing a mutually verifiable shared knowledge base that serves as a prerequisite for political discourse (Arendt, 1967/2006).

This established order has been upended with the insertion of digital platforms as intermediaries to the knowledge process, which undermine the gate-keeping roles of established authorities, e.g. journalists, by facilitating direct connections between audiences (Neuberger et al., 2019; Ohme et al., 2022). The consequence is the assumption of a new role by journalistic actors, who, having lost their sovereignty over public information flows, became optional intermediaries in communication processes between users of digital platforms engaged in communicative transactions by fulfilling verification duties as a trusted party (Ohme et al., 2022). In contrast to the uni-directional communication representative of mass media, communication on digital platforms is *multi-directional* and *transactional*, since every exchange transmits information either back to the originator (e.g. a 'reaction' or 'read-receipt') or to the platform provider (e.g. usage metrics) (Friemel & Neuberger, 2021). The role of actors in this constellation is variable, and they can switch between being recipient, source and intermediary (Ohme et al., 2022), effectively constantly reconfiguring the 'narrative network' that positions facts in relation to each other to make them convincing (Arendt, 1967/2006). With the same giddying speed that false, misleading or simply unverified information passes through the floodgates, new strategies and devices have been found to disassemble and contest it (Hermida, 2012). OSIN/T, the attempt of online communities and media actors to form new configurations to counter disinformation online, represents a particularly salient form of platformised online activity that bears the hallmarks of work in the Arendtian framework. In the following section, I trace the development of contemporary OSIN/T practices to demonstrate how they co-developed with communication

technology and platformisation. This serves to connect OSIN/T to the mid-20th-century concept of 'societal verification', which can be categorised as an instance of pluralistic political *action*.

5.2.2 Emerging practices of OSIN/T

To present the findings of this analysis, I begin by setting the scene and tracing the development of contemporary OSIN/T communities and practices. The motivations and activities of OSIN/T communities are best understood against a backdrop of how the verification issues they address were brought about by technological advances and platformisation. Then, I situate the subject of this study in the history of ideas around '*societal verification*', while highlighting how platformisation has brought about the technological affordances that enable novel forms of "inspection by the people" (Deiseroth, 2000) to be implemented.

The idea of combinatorial processing of freely available data for intelligence, i.e. evaluated information, reaches back to the years leading up to the Second World War, where an increasingly international news landscape led to governments enlisting civilian agencies' help in monitoring foreign media (Schaurer & Störger, 2010). A prominent example of this is the BBC's Digest of Foreign Broadcasts-today's BBC Monitoring-launched in 1939. During the Second World War, intelligence gathered from open sources became a mainstay of military operations, with the vast majority of information coming from radio and print sources and culminating in a report for the commander in question (Burke, 2007). In the following Cold War period, the monitoring of media from across the ideological divide was finally so deeply enshrined in intelligence agencies' work, perhaps best exemplified by the obsessive attention to Western media paid by the Stasi, East Germany's notorious secret policy agency, as to become quotidian and unremarkable for the agents performing it (Schaurer & Störger, 2010). This explains why, despite providing the indispensable basis for intelligence work, the practice of open source intelligence was long considered less desirable or important by intelligence circles until institutional recognition increased dramatically following the 9/11 terrorist attacks (Hulnick, 2010).

The Cold War saw another remarkable shift in the development of monitorial ideas by drawing attention away from media and towards *the public*, i.e. the citizens of a country. As nuclear arsenals proliferated, the idea of *societal verification* or 'inspection by the people' was prominently discussed in a range of United Nations conventions and other international fora (Deiseroth, 2000). A lack of political will and insufficient technological infrastructure at the time,

however, hampered major successes. Only in the context of the *information revolution* around the 1990s and the rise of new media distributed through the internet did discussions surrounding verification gain new fervour (Rathmell, 2000). Complete linkage of data and media produced by citizens around the world that could bypass conventional *gatekeepers* in the form of the state or journalists was to be the end goal of the internet (Glassman & Kang, 2012; Lehdonvirta, 2022, p. 4). The implication was an exponential increase of textual and non-textual data. The rise of platforms, both in their physical manifestation as smart devices equipped with sensors, which would have been considered military grade in the previous century, and their unprecedented virtual incarnations, providing connectivity, channelling and distributing media and content from around the globe on an entirely new scale, began producing a deluge of potentially insightful information that would have left any number of seasoned intelligence operatives scratching the surface without technological assistance (Pastor-Galindo et al., 2020).

Platform providers responded by 'scrubbing' their content and drawing on a distributed workforce of *microworkers*, a novel form of platform labour, to check their content for harmful or illegal themes in digital factories in the Global South (Altenried, 2020). In the same vein, as the quantities of data outstretched even the most well-staffed and efficient teams, journalism— the traditional civilian gatekeepers of information—also sought to adapt. Units dedicated to parsing open sources were founded in established publications, e.g. the New York Times' Visual Investigations Team⁶⁸, and new mission-driven journalistic outlets emerged that subscribed entirely to the idea of drawing solely on open sources, such as Bellingcat⁶⁹. At the same time, amateur communities formed to learn and practice OSIN/T and found their homes on discussion platforms, such as Reddit, Discord or Twitter. These are either connected to a journalistic outlet or entirely grassroots, e.g. Project OWL⁷⁰. OSIN/T communities, often tens of thousands strong⁷¹, take on the substantial task of processing and validating open information to enable journalistic output (The Economist, 2021).

⁶⁸ https://web.archive.org/web/20221114141320/https://www.nytimes.com/spotlight/visual-investigations (accessed on 14.11.2022)

⁶⁹ https://web.archive.org/web/20221114141239/https://www.bellingcat.com/ (accessed on 14.11.2022)

⁷⁰ https://web.archive.org/web/20221114140900/https://discord.com/invite/projectowl/ (accessed on 14.11.2022)

⁷¹ In the case of the loosely organised OSIN/T practitioners on Twitter or Telegram the number is potentially much higher.

One concrete example of OSIN/T practice is the verification of the authenticity of imagery emerging from the Russian invasion of Ukraine in 2022, dubbed the world's first 'networked war' (Tett, 2022), and the geolocation of such photographic evidence. Another function of OSIN/T that is gaining increased attention is its archival role⁷², documenting information about events that might be useful for future legal purposes, such as war crime trials (Howell, 2022; Murray et al., 2022). OSIN/T has featured prominently in the public monitoring and archiving of information from ongoing conflicts, such as in Yemen (Waters, 2022) or in the aftermath of the shooting down of Malaysian Airlines flight MH17 (Cooper & Mutsvairo, 2021) by collating and archiving open information for journalistic and legal purposes.

The contemporary theory of monitory democracy extends the idea of societal verification beyond armament control to public institutions in general. It argues for an updated democratic conception defined by "the rapid growth of many different kinds of extra-parliamentary, power-scrutinising mechanisms", emphasising the centrality of digital media and technologies for citizen-driven control over politics to succeed (Keane, 2011). Individual 'monitors', Keane argues, hold power to account "by putting politicians, parties and elected governments permanently on their toes, [by] complicat[ing] their lives, question[ing] their authority and forc[ing] them to change their agendas – and sometimes smother[ing] them in disgrace" (Keane, 2011, p. 179).

While crowdsourcing⁷³, another contemporary open journalistic practice, conventionally resembles a hierarchical arrangement where a *crowdsourcer* approaches a *crowd* to surface specific information, OSIN/T communities are active partners in the knowledge generation process that enables the processing of crowd-produced information through validation and reduction. Such collaboration between journalists and online communities has been described in the literature as a broadening of the journalistic process to an increasing number of non-

⁷² Archival functions might include protecting information against politically motivated or accidental deletion or censorship (OHCHR, 2022).

⁷³ OSIN/T bears some similarities with *crowdsourcing*, another open journalistic practice that has increased in relevance in tandem with connectivity. A contraction of the terms *outsourcing* and *crowd*, it refers to a process of knowledge co-creation between journalistic actors and an undefined online group (the crowd), which is prompted to participate in a task. Whereas *outsourcing* assigns this task to a specific agent, *crowdsourcing* extends the assignment to a diffuse group of individuals online (Aitamurto, 2016). The openness of the crowdsourcing process introduces risks by "compromis[ing] the journalistic norm of data verification" (Aitamurto, 2016, p. 280) that are mitigated by new arrangements between the audience and journalists, such as blended responsibility and a sharing of verification duties. Journalists, it has been suggested, will require additional support "both in the verification process and in structuring and organising [the] overwhelming amount of social media content" (Brandtzaeg et al., 2016, p. 323).

journalistic actors in a way that is *anti-elitist* and *democratic* (Müller & Wiik, 2021). Prompted by the rise of open source practices, the authors claim that the traditional role of the journalist is "transform[ed] [...] from 'controller' and 'gatekeeper' into an enabler of free collaboration", a "gate-opener" of sorts (Müller & Wiik, 2021, p. 1). However, further research is needed to understand how specifically OSIN/T communities are embedded into these new arrangements between journalism and digital publics. Deeper insight into this emerging practice is a key to unravelling how *platformisation* affects the knowledge generation and verification process in the contemporary digital public sphere.

To better understand the configuration of OSIN/T communities, journalistic actors and the public, and how their activity maps onto the *vita activa* (Figure 5), this analysis traces the dynamics that unfold between them during three news events on two OSIN/T Discord servers, *Bellingcat* and *Project Owl* (Table 4).

5.2.3 Findings from a qualitative content analysis of OSIN/T communities

In this section, I describe the central findings of the qualitative analysis by outlining the relationships between the amateur OSIN/T communities and journalistic actors that emerged during the process (see Chapter 4.6). I then map the key dynamics onto a graphical model for further interpretation. The central themes that emerged from the data were: *informational ecosystems, technological & community governance, motivation, archiving* and *monitoring*. Additional details on the emergent themes are provided in Appendix A.

Informational ecosystems. Analysis of the discourse on both servers during the three events revealed numerous sources leveraged by both communities during the OSIN/T cycle (*input*). Most *audiovisual* content was introduced to the server from *social media* or *web resources*, including *Twitter*, *Telegram* or *YouTube*, but also *government websites*, etc. Depending on the context about the source (e.g. a social media personality's reputation or websites known for spreading disinformation), such introductions were frequently annotated or *commented* to include additional information, including *requests* for OSIN/T services. The community (or, in some instances on the *Project Owl* server, the automatic moderation system) then usually furnished the incoming information with the required context. In other instances, the content, e.g. satellite imagery, was introduced *directly*, without accompanying information about the source.

At other points, chains of platforms were used to *live stream* content through *bridging services*. Specifically, one user leveraged the (incidentally also gaming-related) platform *Twitch*

to distribute real-time analogue radio cuttings to the community while simultaneously translating the ongoing situation, commenting on their input as follows: "live radio interception and translation sounds like a dead body cleanup operation is in place by the russians" (Bellingcat user)⁷⁴. The user posting the content was also a member of an adjacent investigative community focused specifically on the processing of analogue radio signals, suggesting they were *multihoming*, i.e. active members of multiple OSIN/T communities. Since the knowledge required to analyse analogue radio transmissions (such as denoising) was not commonly available among Project Owl community members, *other external OSIN/T communities* were involved to assist with the processing.

Personal sources, i.e. community members claiming to be in direct contact with individuals in Ukraine, whose information was relayed to the community, also featured among *data sources* in both platforms. One user claimed a Ukrainian soldier had "sen[t] a bunch of unseen combat footage" (Project Owl user). However, in most observed cases the content flowed through an *external platform* first, before being processed by the OSIN/T communities in this analysis. There seemed to be consensus among community members that information surfacing on *Twitter* and in private *Telegram* channels was in an unfiltered or raw state and usually deserved cautionary treatment.

During the OSIN/T process proper (*throughput*), information from various sources was frequently combined or assembled by drawing on *external platforms or services*, such as *Google Maps* to obtain satellite imagery for *geolocation*. External *productivity apps*, such as Google Sheets or Trello would be used to track certain OSIN/T processes, whereas some services, such as *automated translation*, were built directly into the Discord infrastructure. *External validation* through platforms was also purposefully set up as an *output* mechanism in some instances, with users prompted to submit finalised *geolocation* output to a map service managed by Bellingcat. This represents an overt link between the host organisation and its peripheral community space in the first case. Finally, community members on both servers retrieved information from and effected change on *Wikipedia*, which emerged as a space of contested information during the analysis. One user claimed they were "monitoring pages [and ,d]efinitely removed my fair share of 'funny' sources" (Bellingcat user).

⁷⁴ To avoid identification community user names are omitted from the direct quotations.

Technological & community governance. The OSIN/T communities in this study exhibited different governance systems. Whereas the *Bellingcat* Discord server existed as a supplement to the core investigative group and had a distinct educational and formative character, the *Project Owl* server was organised as a *community-owned platform*. The ownership and moderation structure on the Bellingcat server was organised in a hierarchical manner (Robinson, 2022, p. 6) with one staff member prominently taking on a leadership position within the community. However, both communities exhibited *community involvement*, where members were asked to contribute their ideas to the management of the Discord server, e.g. by asking them to fill out a satisfaction survey and list their suggested improvements. The close topical alignment of the two communities meant that users tended to *multihome* on both and introduce suggestions from one to the other, e.g. one user claimed that "a good blueprint [for the server] is how [*Project Owl*] is organised" (Bellingcat user).

The size of both communities, particularly following a surge of interest in OSIN/T following the events in early 2022, made *community* or *staff* moderation a highly demanding task. It is likely that, in line with findings presented in the literature on comparable social platforms, such as Reddit, moderators only monitor the conversation sporadically and rely on technological and community assistance. For instance, Mitchell & Lim (2018, p. 409) suggest that "moderators perform both gatekeeping and gatewatching, while [users] are gatewatching each other."

Technological governance was more frequently used on the *Project Owl* Discord server compared to the *Bellingcat* server. One functionality leveraged by both groups is the adherence to a granular *channel structure* and the use of automatic community broadcasts to maintain *channel hygiene*, e.g. by reminding users to avoid cluttering up practice-oriented channels with chatter. This further included setting up channels to cover relevant ongoing events or geographies of interest (e.g. the invasion of Ukraine) as well as a division into functional areas of OSIN/T (e.g. signal analysis or geolocation), general discussion or educational and formative content.

The community-driven *Project Owl* server made extensive use of the gaming-related automoderation tools offered by Discord, such as the automatic *flagging* of problematic content introduced to a channel: "[source] has a history of biased, misleading or outright false reporting. While the information presented may be correct, it's good to know your sources!" (Project Owl bot). Another such functionality was the *automatic translation* of non-English content into English through an *external translation service*. This frequently used feature illustrates how Discord OSIN/T communities sit at the centre of a wheel-and-spokes configuration of platforms that serve either as sources or services.

The *terms of service* of the Discord platform represented another governance factor for the OSIN/T communities that lay beyond the control of server administrators, limiting which content could be shared through the platform, including "gore, excessive violence, or animal harm", content in violation of "intellectual property or other rights", content that involved "hacking, cracking, or [...] stolen goods" and "false or misleading information (otherwise known as misinformation)"⁷⁵.

Motivation. Members of both communities exhibited a strong *community ethos*, loosely based on the values of *open source* software development. This included an absolute ban on the publication and sharing of illegally obtained information, such as through hacking. This information may, however, be shared on the individual level, as one user suggested to "not send [data] through the server", since "[a]nything obtained through hacking isn't allowed" and to instead "DM it to them preferably" (Bellingcat user). An approach that might be in conflict with the Discord platform's *terms of service*. Group membership and adherence to a *codex* of rules and behaviours could explain the allure of participating in OSIN/T communities on Discord. Whether or not information should be processed depended on this set of implicit rules negotiated among the community. As one user put it: "if it needs investigation or debunking then it gets jumped on" (Bellingcat user). Another community member offered a more concrete description of what might pique the communities' interest, suggesting it was content that "shows civilian harm or anything questionable" (Bellingcat user) that kicked off an OSIN/T process on the platform.

The analysis yielded instances of journalistic actors directly approaching OSIN/T community members with requests for collaboration. One user claimed that "[Associated Press] contacted me with some questions" (Project Owl user) regarding radio signal processing, providing an example of indirect collaboration. Direct collaboration was also evident where (allegedly) journalistic actors registered on the servers directly. One user stated they were "writing an article on [...] missile[s] used [...] in Kramatorsk" (Project Owl user) and required further input on the type of ammunition used in this event.

⁷⁵ http://web.archive.org/web/20221115181647/https://discord.com/guidelines (accessed on 15.11.2022)

Recognition of community efforts by external parties played another important role in explaining community members' motivation. In one example of community acknowledgement, a journalist posted a piece of news published in the New York Times based on OSIN/T input back into the channel and commented "thanks everyone in here" (Project Owl user; journalist), to which community members returned their thanks for their *recognition* and *acknowledgement*: "Huge thanks to you. Awesome story and fantastic work!" (Project Owl user). This relationship was further discussed on the Bellingcat server, where one member commented that "NYT used material from [Project Owl] in the article they wrote about the radio communication" (Bellingcat user).

Archiving. The question of whether the output of OSIN/T processes was merely for journalistic usage or whether it could be "used in legal institutions to prosecute for war crimes" (Bellingcat user) was raised by a community member in the analysed discussion data. Responding to this question, a Bellingcat staff member and server moderator confirmed that "open-source info has been used to secure convictions in the past" (Bellingcat user; staff member).

A pre-disposition for archiving the *output* of the OSIN/T process is evident in the servers' respective *channel structures*, which in both instances included dedicated channels for finalised OSIN/T analyses, e.g. 'completed Ukraine geolocation' in the case of Bellingcat. Aside from *channel hygiene*, these channels functioned as caches for information to be picked up and processed by external parties and storage for future reference. *External services* were also used to consolidate OSIN/T efforts from multiple communities, for example, a crowdsourced map service operated by Bellingcat and the Centre for Information Resilience (CIR), another OSIN/T outlet, that aimed to "map, document and verify significant incidents during the conflict in Ukraine" and make the output available publicly (Bellingcat user; staff member). Community members were encouraged to commit their findings to such external archiving efforts.

Monitoring. The central dynamic unfolding between OSIN/T communities and external parties, including journalistic actors, during both the *input* and *output* of information, was *monitoring*. The OSIN/T process involved monitoring *sources*, such as Telegram channels, government websites, analogue radio signals or even personal acquaintances, for potentially relevant information requiring validation. After the need for processing is established, the information is validated either by an individual or by a group of community members (potentially involving assistance solicited from *other OSIN/T* communities). Finally, the *output* is *archived* and might be picked up by internal or external observers. This reveals much about the inner

workings of the OSIN/T process, which does not conclude apart from incrementally adding a validated piece of information to the community *archive* under the assumption of being (potentially) *monitored*, i.e. being picked up by journalistic or legal actors for further action.

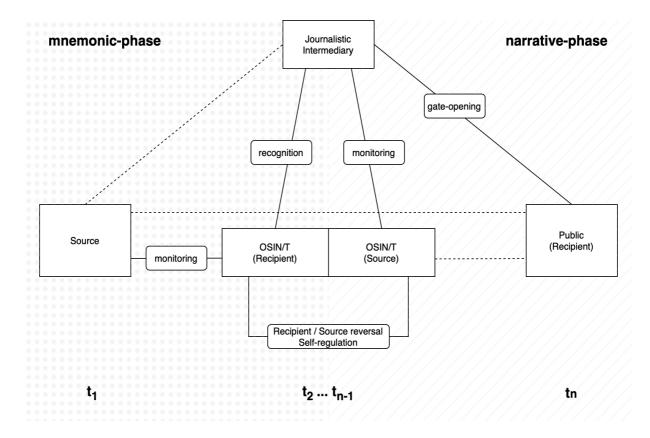
Differences between communities and events. The primary difference observable between the two cases of OSIN/T communities in this analysis was the governance architecture. Whereas the *Bellingcat* Discord server was *externally* oriented, e.g. by providing access to an external platform to submit geolocations of audiovisual content for further validation, *Project Owl* was organised *inwards*, relying on publicly accessible archival channels to disseminate the results of their OSIN/T processes. A notable difference in the operations of both communities between the events in this analysis was the intense journalistic focus surrounding the first period in the analysis (Table 4).

Summary of the key findings. The literature suggests that journalistic actors are increasingly unable to fulfil the conventional 'gatekeeper' roles ascribed to them due to the proliferation of unverified information on digital platforms (Müller & Wiik, 2021). OSIN/T provides recent examples of amateur communities collaborating with journalistic or legal actors to tame this otherwise unmanageable deluge of data.

The pathway of observations or sensing to become factual information has become subject to a new form of *monitory* 'societal verification' of all public institutions (Keane, 2011). Paying close attention to the web of actors along this new arrangement and the dynamics between them sheds further light on how OSIN/T communities on digital platforms contribute to this novel informational '*work*', i.e. the creation of a publicly accessible factual baseline. The analysis of two OSIN/T communities presented in this chapter revealed a range of dynamics between novel journalistic-aligned actors and journalists as well as OSIN/T-native governance and organisation structure that are visualised in Figure 12.

Figure 12

Dynamic relationships between OSIN/T communities, the public and journalistic intermediaries



Note. Adapted from Charlton-Czaplicki et al. (2022) and Ohme et al., (2022).

The graphic is separated into a mnemonic phase (left), which corresponds to the activity of *work* in the Arendtian framework, and a narrative phase (right), corresponding to *action* (see Figure 5). It maps the stylised flow of information from the capture of an event by a participant at time point t_1 , through its validation or rejection by the OSIN/T community at t_{n-1} , to the final recipient individual in the public sphere at t_n . The undirected solid edges indicate a dynamic relationship (rounded rectangles) between the actors in the graphic (rectangles). It is assumed that the journalistic intermediaries are not directly accessing or verifying the original source at t_1 (the left end of the visualisation) due to there being too much unfiltered or contested information to manage (Hermida, 2012) and that the public recipients (at the right end of the visualisation) are not directly accessing OSIN/T communities, since they are unlikely to be members there, though both paths are technically feasible. This is visualised by the dotted edges. Instead, they receive validated information framed by established journalistic outlets as news, a function that can more aptly be described as 'gate-opening' than 'gate-keeping' (Müller & Wiik, 2021). The *recognition* of community efforts, such as pieces of news acknowledging OSIN/T sources or official requests for collaboration from authenticated journalistic actors, e.g. the New York Times or Associated Press, serve to motivate individuals to participate in the OSIN/T process. The graphic further highlights the *recipient-source reversal* (Ohme et al., 2022), which stipulates that an entity can be the recipient of information at time point t_x and the source thereof at t_{x+1} . Once the OSIN/T process, i.e. the verification and validation of information during the *mnemonic-phase*, terminates, the community becomes a source of validated information during the *narrative-phase*.

Three key insights emerge from this graphical analysis of the dynamics between OSIN/T communities, journalistic actors and public recipients:

First, *monitoring* plays a central role in enabling this flow of information, starting from the monitoring of unverified and contested sources of information by a multitude of OSIN/T communities and their members—a decidedly pluralistic effort—using a range of technological and platform-specific affordances to assist them, such as the *bridging of analogue signals* to streaming services, and the monitoring of OSIN/T communities' archival channels by journalistic actors. *Output* in the OSIN/T process is thus achieved by terminating the process *under the assumption of being monitored* rather than reaching some formal end. This lends credence to the idea of a revitalised and universal form of *societal verification* during events of public interest (Brandtzaeg et al., 2016; Hermida, 2012).

Second, *recipient-source reversal*, a key dynamic of journalistic intermediation according to Ohme et al. (2022), is central to explaining the activity performed by OSIN/T communities, which oscillate between their roles of *monitor* (during informational *input*) and *being monitored* (during informational *output*). Static role definitions of the 'gate-keeper' (Müller & Wiik, 2021) are not well suited to describe information flows in the platform economy, as actors variate across roles and dynamic relationships among each other.

Finally, the analysis yielded evidence for substantial community self-regulation and governance based on a strong sense of *community membership*, adherence to an ethos and platform affordances, such as the use of technological aids to maintain ordered proceedings among the otherwise loosely connected communities coalescing on Discord. Digital platforms, despite being implicated in the production and distribution of the overwhelming floods of information surrounding events of public interest in the first place, also provide the technological affordances that allow citizens to take a stance against dis- and misinformation by engaging in collective informational 'work', the products of which are instantaneously available to inform

'action'-like narrative, blurring the boundaries between the two dimensions in the Arendtian framework (Figure 5). OSIN/T activities are *work* insofar as they are value-driven and draw on a strong community ethos and identification with a practitioner's role. Rather than informing the public themselves, OSIN/T practitioners contribute the products of their work processes to a communal space (the platform's archival channels or dedicated repositories) from where they might be picked up. However, OSIN/T activities also acquire some *action*-like qualities when they are performed. Since platformisation has made covering all data impossible due to sheer scale, the salvaging of information for contestation and verification itself becomes a political activity, indirectly shaping the narrative about an event by arranging its factual basis.

5.3 Meta-analysis

In this section, I demonstrate based on the presented findings, how *platformisation* is both shifting human activity towards *labour*, as predicted by Arendt, and simultaneously opening new possibilities for *work* and *action* to be performed (Table 8). I then relate the synthesised findings to their effects on the stability of the public realm, defined by *expression*, *communication* and *memory* (Figure 5). The duality inherent in this (de)stabilisation provides the foundations for a prescriptive perspective on how platformisation can be channelled to redeem political life.

5.3.1 Platformisation as labourisation

The findings demonstrate that the amalgamation of labour and technology in the form of *gig work* has led to two things: first, an intensification of labour, which has become 'decentric' and flexibly colonises all aspects of daily life and second, a departure from the 'jobholder society' and the fate Arendt identified for it. The society of 'labourers that has run out of labour' (Arendt, 1958/2018, p. 5) has not come to pass. Instead, an increasing number of individuals in the UK (and, based on the reviewed literature, globally) are *labouring* through digital platforms. The findings also show a separation of platform careers into supplementary and 'vocational' types. In other words, the more self-directed and entrepreneurial the performed type of gig work is, the more likely it is that the individual will remain in the gig economy⁷⁶.

⁷⁶ The image providers of digital labour platforms cultivate is that of being purveyors of work through *locatio operis*, i.e. the remunerated delivery of services between an independent contractor and a client, rather than *locatio operarum*, i.e. an employment relationship. This would suggest that 'freelance'-type work is where the character of gig work is most evident.

Table 8

Overview of the inferences

No.	Key finding	Inference / implication for vita activa		
Sequence analysis of gig workers' career paths				
Ι	Gig labour is a reality of work for millions and growing	Platformised activity is expansive		
II	Gig labour is increasingly picked up by peripheral groups (young and old)	Platformisation 'colonises' the life course of millions worldwide		
ш	Gig labour is 'decentric' and the physical (or virtual) workplace is deliberately removed	Platformised work and labour are increasingly 'lonely' experiences		
IV	Remote gig labour is associated with entrepreneurial identity	High-quality self-determined 'work' might be facilitated by remote gig platforms		
Topic model of remote gig workers' support communities				
V	Multiple embeddedness of gig labourers	Platformised labour/work is radically different to previous forms		
VI	High administrative burden of gig labour	Platformised work is 'factory-like'		
VII	Support mechanisms are deliberately designed out of gig labour	see III		

Platformisation alienates the worker from the work process

Qualitative content analysis of OSIN/T communities				
IX	OSIN/T communities on digital platforms oscillate between 'monitoring' and 'being monitored'	Platformisation creates the technological conditions for new forms of work		
X	OSIN/T communities exhibit a strong 'ethos' and sense of community	See IX + communities band together across geographies		
XI	Informational 'work' includes mnemonic and narrative phases	A strict delineation between <i>work</i> and <i>action</i> is not suited to describe novel platformised work-action		
Meta-inference				
1. Platformisation radically transforms the <i>vita activa</i> by labourising it and creating new opportunities for work-action (I–XI).				
	It increases <i>world-alienation</i> by colonising the life course with labour and by removing workers' control over their work process and its products (VL VIII)			

removing workers' control over their work process and its products (VI-VIII)

3. Platformisation facilitates new configurations of activity (work-action) that bolster the mnemonic dimension of the public realm (IV, IX & XI).

Those gig workers who tended to view their gig work as self-employment were mostly involved in the remote kind, and herein lies the genuinely novel departure from labour and work as it was performed in the 1950s context of the vita activa. This new remote work is fully digital and does away with any geographical or physical anchoring. The workplace-a space for encounters and learning-is replaced by algorithmically intermediated client-worker relationships. Exchange between workers is deliberately designed out of the experience of remote

platform work, and those who desire it have to turn to external platforms to form 'communities of practice' or 'communities of coping'.

When Arendt authored the Human Condition, she keenly observed and noted an ongoing and gradual decrease in daily working hours, which she attributed to automation and technological advancement. She cautioned that any progress made in reducing daily working hours should be measured against a "very 'dark age' indeed" and considered an "approximation to normality" rather than a genuine achievement compared with the inhumane expansion of the working day under earlier capitalism (Arendt, 1958/2018, p. 132, Footnote 85). I argue that the account of the increasing technologisation of labour and work is an underdeveloped aspect of Arendt's analysis, since throughout The Human Condition technology in general and automation in particular are treated as opaque forces on an unalterable trajectory of progress towards self-sufficiency (i.e. towards humans being out-of-the-loop and mere consumers). There is a notable lack of imagination in Arendt's writings as to what potential futures of work might resemble, beyond the imaginary of the "newly invented electronic machines", which are, "like all machines, mere substitutes and artificial improvers of human labor power" (Arendt, 1958/2018, p. 172). Machines, Arendt argues, "demand that the laborer serve them, that he adjust the natural rhythm of his body to their mechanical movement" and once the unstoppable progress of technological advancement has run its course, they will "eventually replac[e the body] altogether" (Arendt, 1958/2018, p. 147). This would leave society, which has in mind and body long since conformed to animal laborans and lost any access to other domains of activity, fully dedicated to meaningless hobbies and without any protection against harmful ideology (Arendt, 1958/2018, p. 118). Digital labour platforms, by algorithmically structuring the lives of gig workers on a case by case basis, have certainly elevated this machine-conformism. However, rather than automating labour out of our lives and unleashing consumption to fill the gaps, platformisation has further colonised our time and attention with labour fragments, as is the case, for example, when the flexibility of remote gig work binds workers to the clients' geographical and legal contexts and demands additional labour-for-work.

Arendt, who linked the European *scramble for Africa* with the total decay of the public sphere and thereby attributed a pivotal preparatory role to imperialism in reconfiguring active life to suit the needs of Hitler's and Stalin's movements (Arendt, 1951/2017; Benhabib, 2004), failed to anticipate the expansive force of unleashed globalised capitalism to bind an ever-increasing world population to their factories. I argue that the *platformisation* of work and labour expands

the labour process not only spatially, but temporally, along the *life course*, e.g. by involving previously out-of-the-labour-market groups, such as retirees. Cecil Rhodes' 'expansion is everything' fantasy (Arendt, 1951/2017, p. 160) aptly describes the ambitions of today's digital labour platforms, where labour 'colonises' daily life. OLMs function principally by treating labour as a tradeable commodity (Arendt, 1958/2018, p. 123), reducing the worker to their work (or rather, the labourer to their labour). This development has been described in the literature variously as 'humans as a service' or 'heteromation' (Ekbia & Nardi, 2014; Márton & Ekbia, 2021).

The degraded quality of the work process. The overt platform economy, in particular through remote OLMs, also referred to in this dissertation as the gig economy, offers—in principle—the conditions for work to proliferate globally in a way that is mutually beneficial to workers and clients. Through platforms, work has been liberated from the temporal and spatial constraints of the workplace and can be performed and delivered anywhere and anytime, according to the preferences and circumstances of the craftsperson. Despite swimming in a sea of labour, OLMs promise a skill-centric and self-determined future of work. However, this enticing narrative of flexibility neglects the impact of platformisation on the experience of *(craft)work*. I demonstrate that despite superficially resembling a globally distributed 'workshop', OLMs undermine the quality of the work process itself, which differentiates genuine work from labour.

Platformisation affects workers' in different ways. First, it embeds them in multiple geographies, including their physical surroundings, the platform providers' legislations and their clients' locations. This is simultaneously the advantage offered by OLMs, allowing workers to trade their work globally, potentially increasing their bargaining power by tapping higher value markets, and a detriment to the quality of the work process. The multiple embeddedness of 'crowdworkers' necessitates significant 'labour-for-work' on their end, forcing them to manage relations with multiple bureaucracies. As platforms increasingly assume *statelike* functions (Lehdonvirta, 2022), such as setting minimum wages and taxation, they impose their own administrative constraints on workers in addition to those of their immediate surroundings and those set by their clients.

Second, the distinction between 'cog-in-the-machine' style *microwork* and more complex and skill-intensive *crowdwork* or *online freelancing* to differentiate between types of remote gig economy activity (e.g. Cedefop, 2021; Margaryan et al., 2022) is increasingly blurred, as AIdriven management technology allows for on-demand 'hiring and firing' of even highly skilled

work through digital platforms automatically, without human involvement (Frank, 2022). This amounts to emerging practices of *algorithmic management*, where AI-driven information systems replace human clients and the work process is fully controlled in both its intended outcome and the modalities of its performance. Subsuming the products of human work to machines in this way (the aforementioned adjustment of the natural individuals' rhythm to that of the machine) is anathema to Arendt's idealised configuration of human activity. Though she predicted the opposite, that technology would "empty the factories and liberate mankind from [...] the burden of laboring and the bondage to necessity", leaving it to waste away its free time with useless consumption, which is equal to labour in its being non-political (Arendt, 1958/2018, p. 4), the exploitation of human activity by algorithms and machines leads to the same outcome. Automation, which relies on the 'one-ness' of labour (Arendt, 1958/2018, p. 90), its commodification and exchangeability, ultimately seeks to eradicate the 'human touch' and the means-end thinking of homo faber from the productive arena. Remote gig work facilitated through OLMs simultaneously enables craft(work) and further labourises the work process, curtailing workers' control over all aspects of the work process, such as free price setting or collaboration. On OLMs, homo faber is coerced and restricted by technology, rather than the opposite. Despite the genuine advantages brought about by OLMs in terms of flexibility, it has to be concluded that the remote gig economy ultimately presents only the illusion of work understood in the Arendtian sense as a value-infused process oriented towards the end of contributing products to the world. The platformisation of work robs it of its essential character and the self-determination that differentiates it from labour, skewing the balance of activity and potentially leading to a destabilisation of the public realm by eroding the worldly foundations of infrastructure and shared institutional memory (see Figure 5).

5.3.2 Platforms as spaces for work-action

Having established 1) that gig economy platforms effect a shift towards 'radical privatisation', i.e. a withdrawal from public concerns due to an all-consuming preoccupation with activity resembling labour, by 'colonising' new temporal and spatial dimensions along and across the life course and 2) that the quality of the work process itself is affected on digital platforms due to being subjected to algorithmic governance, it seems natural to conclude that *platformisation* is rapidly advancing society into an Arendtian 'jobholder society' dystopia, where labour and consumption monopolise all of human activity and attention. However, insights from the third

analysis demonstrate that developments might not be so clear-cut. Here I focused on a form of platform work that is so far removed from the reality of the 1950s that it might well have been unimaginable to Arendt and her peers. The advent of digital communication and social media platforms have redefined the common informational foundation that Arendt thought was required for orientation in 'the world', or, as she puts it, the way "we take our bearings in the real world". Where the integrity of this informational substratum is compromised, as was the case in totalitarianism, the result is an "experience of a trembling wobbling motion of everything we rely on for our sense of direction and reality" (Arendt, 1967/2006, p. 253). The findings from the third analysis showed how the radical connectivity and propagation of information through digital platforms have weakened the traditional gatekeeper role of journalists and created an increased demand for the verification of information. Amateur communities in the tradition of '*societal verification*' have stepped up to the task by providing *informational work*, a *world-building activity* that enables *political action* and blurs the boundaries between the two forms of activity.

Establishing and maintaining the coercive and "brutally elemental data" that constitute factual truths (Arendt, 1967/2006, p. 234) has become simultaneously more troublesome and achievable through digital platforms, whose fleeting nature means facts are constantly in flux, bubbling up and disappearing forever without leaving any traces. In itself this does not constitute a major departure from non-digital reality, since any scrap of information depends on its being witnessed to be functional, i.e. forming part of a story or informing an opinion. What has changed is their sheer quantity, rapid frequency and possibility of being witnessed by innumerable individuals at once through spontaneous many-to-many broadcasting and interaction. For Arendt, factual truth was non-political, since it "peremptorily claims to be acknowledged and precludes debate [...] the very essence of political life" (Arendt, 1967/2006, pp. 236–237). Here the fundamental difference brought about by platformisation becomes obvious in the mere existence of OSIN/T communities, whose sole purpose is the deliberative establishment of facts for further use in the narrative journalistic apparatus, which itself is an instrument of debate or opinion-forming.

I argue that today it is no longer the case that facts acquire political relevance only by being threaded into an interpretative context (though this often remains their ultimate destination) in contrast to Arendt, who maintained that telling the truth, i.e. relaying verifiable factual information, "to say what is, or how something that is appears to me", cannot be considered political action, since it lacks the qualifying criterion of intention to set something in motion (cf. Arendt, 1967/2006, p. 245). The fleeting and unstable nature of digital platforms necessitates *active* engagement to solidify factual truths from their fluid surroundings. Here, bearing witness is no longer a passive state but a deliberate act, namely providing the necessary foundation for the *beginning* of a narrative. Achieving a 'static' understanding of one particular event on digital platforms requires the conscious and deliberate activity of many—satisfying the criterion of *plurality*—to establish and hold on to the informational landscape surrounding them. Without this fundamental 'informational (ground)work', the platformised world disappears into a noisy sea of signals. Decidedly relevant, it is nevertheless difficult to categorise this activity in terms of the Arendtian ontology of activity.

Despite being *craft-like*, i.e. skilful and community-driven, *informational groundwork* of the kind practised by OSIN/T communities contains the spark of natality—the notion that saving this particular informational instance from oblivion could unfold into a (political) narrative of its own. The seeking out, holding on to and setting in stone of facts has become a hybrid form of work and action against the knowledge that 'inaction' would see all factual truth on platforms dissipate the moment it comes into existence. In Arendt's analogue world, "the mere telling of facts, leads to no action whatever; it even tends, under normal circumstances, toward the acceptance of things as they are" (Arendt, 1967/2006, p. 246). The "fact-finder, the witness, and the reporter" took their stand and exercised their function from "outside the political realm" (Arendt, 1967/2006, p. 255). In contrast, on platforms the mere telling (and thereby repeating and amplifying the reach of) of facts simultaneously means their distribution and ossification. It represents an additional drop on the scale balancing the sum total of truths and lies; and the findings indicate that the groups performing such truth-telling 'work' are aware of their role as actors in the digital public realm.

OSIN/T communities operate according to the notion that "one can spot a lie by noticing incongruities, holes, or the junctures of patched-up places" and that "as long as the texture as a whole is kept intact, the lie will eventually show up as if of its own accord" (Arendt, 1967/2006, p. 248). Establishing the *stasis* of information for lies to reveal themselves is a formidable challenge of the platformised world, since it is considerably more difficult, nigh impossible, to juxtapose pieces of information with others that could reveal its disingenuity if everything is in constant flux. In the platformised world, it falls to certain groups of individuals, who, alternating between the capacity of *homo faber* and *zōon politikon*, prevent the informational balance on platforms from tipping into an environment where self-deception is possible by ensuring that a

counternarrative to any misleading claims is always within reach⁷⁷. Even when 'knowledge generation and verification work' is performed for its own sake, without any further narrative implication in mind, it corresponds to the pre-philosophical *Homeric* ideal of bearing witness to all sides of a conflict and registering the deeds of the victor and the vanquished with equal attention to preserve them for posterity (Arendt, 1967/2006, p. 258; Detienne, 1996, p. 102). The process of 'setting facts in the middle' by reiterating them on the Discord server where they can be monitored and further spun into a narrative is central to the studied OSIN/T communities.

The novel blended work-action practised daily by OSIN/T communities (and many ordinary citizens) did not arise spontaneously, but in opposition to a threat posed by platforms to the integrity of the digital public sphere. Platforms have made easier by a magnitude the 'reversibility' of action recorded in facts that Arendt claimed to be a major limitation to (absolute) totalitarian rule. For Stalin to truly convince the world that Trotsky had played no role in the revolution, his "power [...] would have to amount to omnipotence" (Arendt, 1971/1972, p. 13), meaning world-wide and all encompassing. On digital platforms, the "irreversibility" of speech acts is compromised (Arendt, 1958/2018, pp. 236-237) through the concentration of the 'deliberative' infrastructure in the hands of a few powerful platform provider companies, who impose their own policy and (generally) the national laws and moral codes of their headquarters' locations on international cross-border discourse. That the economic paradigm which governs their value-maximisation doctrines lies in open conflict with their de-facto duties as archivers and guarantors of our informational foundations is an open secret (e.g. OHCHR, 2022), for ultimately it amounts to private companies governing 'worldly' public infrastructure. Platformisation has made all information contested, readily increasing the power of political actors to spread falsehoods and shape the informational landscape according to their desires. As a result, the "politically relevant functions" of the "fact-finder, the witness, and the reporter" have migrated from outside the political realm to its deliberative heart (Arendt, 1967/2006, pp. 255, 258). Simply telling the truth and providing the initial impulse for a counternarrative to form means putting up a fight against the drowning out of all facts in a flood of information, which ultimately leads to the blurring of the "distinction between fact and fiction (that is, the reality of experience) and the distinction between true and false" that Arendt thought was the hotbed of totalitarianism (Arendt, 1951/2017, p. 622). The assembly of micro-histories of salient events, e.g. human rights abuses

⁷⁷ The literature on 'filter bubbles' on social media indicates the extent to which such imbalance poses a threat.

or war crimes, by a plurality of citizens scattered around the globe acting in concert redeems the platformised world in the Arendtian understanding.

The section demonstrated how platformisation enables new forms of activity to take place which defy easy categorisation according to the Arendtian *vita activa* (Figure 5). I proposed conceptualising them as hybrid *work-action* in an effort to situate them in the framework and analyse the impact of this activity on the public realm, which I detail in the following section.

5.3.3 The platformised world

As I read it, Arendt's life's work in its entirety is dedicated to the phenomenon of totalitarianism and ultimately an exercise in moral philosophy⁷⁸ (see also McElvoy, 2021). In the 1930s, Arendt witnessed the complete breakdown of tradition, when all moral, philosophical and legal-institutional safeguards crumbled with little resistance in the face of National Socialism. She was determined to locate the root causes of this inversion of the Socratic ideal that it is better to suffer injustice than to cause it. Though she was first tempted to identify this development in historical circumstances as the "temporary alliance of the mob with the elite" (Arendt, 1951/2017, p. 427), her later work, in particular *The Human Condition*, drills down below the surface and she discovers the inhibition of political action through a reconfiguration of the modalities of work as the *radix omnium malorum*. The ontology of the *vita activa* therefore serves primarily a moral purpose: to flag any critical degradation of public life before it is too late—and totalitarianism becomes a possibility. As we morph into *labourers* in deed and mind, our abilities to speak, think and act are stunted, providing the conditions for the fateful mob–elite alliance to arise in the first place. It also contains the reverse, i.e. initial impulses for how we might restructure and bolster our institutions to safeguard political life.

Having established that platformisation can both shift the human condition towards labour and provide new opportunities for hybrid *work-action*, what then do the combined findings of the inquiry reveal about how platformisation affects the integrity of political life? What became clear from the previous sections is that the platformised world differs fundamentally from that described in *The Human Condition*, including in its most futuristic sections. For Arendt "[...] the world of

⁷⁸ Though, as outlined earlier in this dissertation (Table 1), Arendt strongly opposes morality derived from esoteric knowledge or ideology, e.g. Christian moral doctrine, her work includes a strong prescriptive component regarding safeguards for the integrity of the public realm. In other words, what *ought* to be done to prevent the loss of political life and the excesses of totalitarianism (see also Mason, 2019).

machines has become a substitute for the real world, even though this pseudo world cannot fulfil the most important task of the human artifice, which is to offer mortals a dwelling place more permanent and more stable than themselves" (Arendt, 1958/2018, pp. 151–152). A world entirely dedicated to labour has experienced total *world-alienation* and offers no place for *homo faber* to introduce the stability necessary for genuine politics by constructing a *public realm*. Instead, the world becomes a timeless continuum of sustenance and private concerns shared by its inhabitants.

Budding forms of neo-totalitarianism have taken easily to the technological affordances of digital platforms for spreading misinformation, graphically illustrated by 'the world's first networked war' in Ukraine (Tett, 2022). However, in a departure from Arendt's vision, resistance practices developed in response to these threats to our factual reality have taken the form of workaction hybrids, new alliances between homo faber and zoon politikon. In the pre-platform public sphere (cf. Gerhards & Neidhardt, 1990) journalistic actors would iteratively perform the *work* of validation, a systematic task motivated by a strong professional ethos, and the weaving of convincing narratives, a form of action. The condition of platformisation has amplified the frequency and noise with which information is funnelled into our lives. As a result, validation is today a pluralistic task. The OSIN/T communities, journalistic actors and publics studied in this inquiry form a collaborative narrative-mnemonic (Straßenberger, 2015, p. 170) assembly of the public sphere contingent on technology that was not available or conceivable in Arendt's time. Through constant mutual *monitoring* of numerous sources channelled by platform technology (e.g. bridging analogue radio signals to live streams, where they are interpreted in near real-time) and deliberate archival processes, the self-regulated amateur communities combating the misand disinformation emanating from 'networked wars' exemplify how platformisation has seeded new forms of activity that can be harnessed to bolster political life and offer a potent counterweight to the predominantly pessimistic overtones in the academic discourse on platformisation.

The continued *platformisation* of quotidian life is thus both regressive and progressive, as it varyingly promotes isolation or plurality. Debating whether digital platforms are throwing humanity back into a form of digital feudalism by assuming *statelike* powers (Lehdonvirta, 2022; cf. Morozov, 2022) misses a crucial implication. We should be asking—in light of increasingly prevalent platform labour and communication—how digital platforms affect our *capability* for political life, even if they seem unrelated on the surface.

6 The duality of platformisation

The inquiry presented in this dissertation investigates how the changes to the configuration of labour, work and action brought about by platformisation affect the stability of the public realm (see Figure 5). By tracing these dynamics, it makes three contributions. First, it takes up the thread left off by the scholarly literature on platformisation by demonstrating how platformisation increases 'world-alienation', i.e. how it inhibits our capacity for pluralistic, public politics by allowing labour to colonise our daily lives and bind us in a fundamentally private cycle of earning and consuming (Arendt, 1958/2018, p. 254). It is easy to imagine how a remote gig worker, attempting to conform to the governance of a rating algorithm while being deliberately isolated through commodification of their work and prevented from forming anything resembling conventional workplace encounters, would experience the kind of loneliness that we intuitively attribute to a networked society (Mason, 2019)-and in which Arendt saw one of the preconditions for totalitarianism, i.e. isolation (Arendt, 1951/2017, p. 623). The research presented in this dissertation complements views from the existing academic literature, which often limit the carry of their arguments by describing platformisation solely from an economic perspective, and stopping short of tracing the crucial implications a jolt towards labour would bring about for political life. Any destabilisation of the public realm is far more consequential than an accelerated form of capitalism in that it potentially paves the way for totalitarianism to take hold by eroding its inbuilt safeguard of collective memory (see Chapter 3.4.3). The idea of platformisation introducing totalitarian qualities is proposed in the literature, but it is framed as a project of corporate 'puppet masters' (e.g. Zuboff, 2019b, p. 11) focused on monetary gain by surveilling 'private' human activity and thereby stopped from unfolding its potential to inform platform design and governance. Instead of asking only who immediately benefits from platformisation, we ought to ask what its longer-term effects on the 'public' are.

Second, the findings demonstrate that platformisation is *dualistic*, since it exhibits a further dynamic beyond leading to an increased *labourisation*, by allowing new forms of *work*-*action* to take place which provide the conditions for virtual public realms to be formed and maintained. OSIN/T communities exemplify how platformisation is not only reconfiguring existing activity but paves the way for novel, platform-native forms to emerge in opposition to the threat of mis- and disinformation. From this insight, we can devise prescriptive guidance on how platforms should be governed and designed to redeem political life, i.e. promoting the activity

that bolsters the public realm, thereby providing a potent counternarrative to the prevailingly pessimistic literature, which tends to frame platformisation as a wholly negative phenomenon.

Third, it shows how the conceptual apparatus presented in *The Human Condition* 65 years ago, the *vita activa*, can be leveraged to analyse contemporary technological phenomena. This is relevant because it furnishes scholars of digital transformation with a powerful tool to analyse and map its implications. Going forward, the analytical framework resulting from the abductive inquiry presented here should be further developed and validated in other situations⁷⁹.

The findings of the inquiry reveal that platformisation both enables and inhibits 'political life' in the Arendtian sense, by 'labourising' our activity and by allowing for new forms of workaction, respectively. The analyses show that where platforms function as factories, they undermine the quality of the work process—the domain of *homo faber*—required to stabilise the public realm by providing its mnemonic underpinning. As interactive spaces, however, they allow us to tap previously unavailable means of collaboration and facilitate global discourse and fact-checking. Over the following sections, I expand on these implications and formulate prescriptive guidelines for platform design and governance based on them. To begin, I directly address the two research questions guiding this inquiry based on the evidence generated in the previous chapter and theorise how platformisation can account for the full range of findings. I then proceed to mount a response to the four main understandings of *platformisation* identified in the literature review based on the proposed *duality of platformisation*, and finish by outlining how the application of Arendtian theory in this dissertation matches calls in the literature for a more holistic understanding of changes to the configuration of work and labour in terms of their impact on political action.

6.1 The platformisation of labour, work and action

The findings presented in the previous chapter directly address the first research question⁸⁰ of this inquiry by illustrating how platformisation affects the three constitutive dimensions of human activity according to Arendt, *labour*, *work* and *action* (see Chapter 3.5). By mapping the emergent dynamics onto the theoretical framework elaborated in Chapter 3.6 (Figure 5), changes

⁷⁹ Sætre & Van de Ven (2021, Figure 1) describe the release of plausible "hunches" for further "deductive fleshingout and inductive testing" as the culmination of the abductive research cycle.

⁸⁰ The first question: How does platformisation affect labour, work and action?

to the configuration of activity can be evaluated in terms of their impact on the public realm and, by extension, political life. This opens the path to addressing the second research question⁸¹, which calls for a normative perspective on what *ought* to be done to ensure platformisation does not lead into the totalitarian dystopia it has been associated with in the literature (see Chapter 2.4). The central assumption of this discussion that I arrive at based on the findings of this inquiry is that platformisation has the potential for both inhibiting (see Chapter 5.3.1) and promoting (see Chapter 5.3.2) political life. If we subscribe to the Arendtian view that the absence of political life opens the floodgates for totalitarianism (see Chapter 3.4.3), then how this potential can be harnessed to 'redeem' it becomes a vital societal concern. It also forms a direct response to the literature attributing proto-totalitarian qualities to platformisation, which, it can consequently be argued, focuses only on one side of this *dualistic* phenomenon.

It is worth clarifying that what the abductive research process presented in this dissertation revealed is not a representative understanding of all instances of platformisation, but the anomalous insight that, contrary to exhibiting only the expected shift of the vita activa towards labour, platformisation can also lead to the opposite effect—a strengthening of the work and action dimensions. Evidence supporting the expected labourisation is found in the analyses of gig workers' career trajectories and remote gig workers' discussions on online platforms, where they form communities of 'practice' and 'coping'. As the work process is deliberately commodified by platform providers to make it easier to govern algorithmically, the transfer of values between creator and product-the process Arendt accredits with imbuing 'the world' with its qualities of permanence and durability-is called into question (see Chapter 5.1.3). Combined with the insights that workers increasingly enter and leave the gig economy on short-lived stints following fragmented occupational trajectories (see Chapter 5.1.2), platformisation bears the hallmarks *labourisation*, i.e. it creates *necessity*—the quality of the private realm—and concentrates energy and attention. The consequences of an intensifying shift of human activity towards labour and away from value-imbued and self-directed work is a degradation of the mnemonic function of the public realm (Figure 5), which in turn inhibits political action by depriving individuals of the institutional and physical infrastructure for deliberative encounters.

In stark contrast to this stand the insights generated by the third analysis. The example of OSIN/T shows not only that digital platforms can host spontaneous *expressive* and *associational*

⁸¹ The second question: How can platformisation redeem political life?

interaction (see Chapter 3.4.1) but also that communities form novel, technology-enabled *memory processes*. Platformisation is, in this sense, truly a transformative process in that it both generates the virtual spaces for encounter (the 'where') and stabilises them (the 'how' of political life).

The mnemonic aspect is thus where the duality of platformisation is most salient by, on a case by case basis, either undermining the work processes that constitute remembrance or allowing for practices to emerge that bolster it. The difference between the 'platform as factory' and the 'platform as polis' as presented in the previous chapter is the presence of a platform-provider with a pronounced profit-maxim. This crucial aspect can a) serve to explain which conditions are conducive to platformisation as a perilous transformation towards proto-totalitarian conditions and b) shine light on the community-centric open practices that we *ought* to support to harness platformisation for the promotion of political life. Over the following sections, I use the duality of platformisation and the factor of profit-making as key concepts to engage with the platformisation literature.

6.2 A new perspective on platformisation

In this section, I briefly relate the findings of the inquiry and their central implications from an Arendtian standpoint to the four main understandings of *platformisation* in the reviewed scholarly literature. My aim is to demonstrate that while the identified issues or effects of *platformisation* are relevant, mapping their impact on political life using the *vita activa* as a reference framework emphasises the relevance of these arguments or, in some cases, indicates opposite effects. A summary of the implications is provided in Table 9.

The first perspective of *platformisation* in the literature, 1.), understands it as the gradual emergence of new technology-based business models inspired by 'sharing economy' ideals (Howe, 2006) and modular manufacturing architecture (e.g. Steinberg, 2022). The unique combination of an emerging mindset and the affordances of new technological infrastructures, which facilitated peer-to-peer markets and minimised transaction costs, led to the rapid growth of numerous 'platform' businesses over the past decade. The 'platform providers' benefit economically by intermediating transactions and syphoning off value, thereby moulding the labour and work processes they facilitate to enable maximal exploitation, e.g. in the so-called 'gig economy' (Ravenelle, 2019; Scholz, 2017). The notion of platforms as *multisided* or *ecosystemic* (Jacobides et al., 2018), i.e. as nested infrastructures, adds important nuance to the understanding of platformisation as *dualistic*, since even instances of platformisation with a positive impact on

political life (e.g. OSIN/T communities) draw on multiple levels of platform infrastructure, each with its own economic and political implications (e.g. Discord, Wikipedia, Twitter, Telegram, etc.). Similarly, gig work platforms, such as Upwork, form the centre of a network of peripheral platforms relied on by workers to augment their bare-bones workplace experiences, such as Reddit, WhatsApp or Youtube.

Insights into the experience of platformisation from this perspective focuses predominantly on the economic situation of workers and misses how such a fundamental intervention into the configuration of their *vita activa* (labour and work) by extension affects workers' political capacity. Similarly, the second view of platformisation, 2.), whose proponents advocate for understanding it as a development towards globalised, technology-enabled exploitation of invisible labourers front-ended by platforms and seemingly fully computational algorithms ('tech-washing') (e.g. Tubaro et al., 2020), adds further urgency to this interpretation by highlighting how (reconfigured) means of production and daily technology-driven appliances are becoming inseparably entangled. It follows that platform providers should be treated as participants in public life based not merely on their size and economic relevance, but due to their reconfiguration of the modalities of work and labour, a fundamentally political activity.

The third view, 3.), departs from conventional understandings of labour and work towards the dissolution of the boundary of *leisure*, which is increasingly 'valorised' and exploited (Fumagalli et al., 2018). Users, engaging in outwardly non-labour activities are unwittingly made part of a form of 'social factory' (Terranova, 2004) or as appendages of a 'heteromated' network of labour (Ekbia & Nardi, 2017). This understanding illustrates how *platformisation* represents a departure from the gradual creep towards a 'jobholder society' (Arendt, 1967/2020, p. 309) that Arendt predicted in *The Human Condition*. Technology in the guise of digital platforms has not liberated us from the necessity of labour to waste away our time with meaningless consumption (Arendt, 1958/2018, p. 118), but has instead found ways to *labourise* all areas of daily activity and the life course itself by expanding labour to previously out-of-the-labour-market demographic groups (see Chapter 5.1.2). The issue of a gradual labourisation of leisure activity becomes even more pressing when viewed through an Arendtian lens, since the integrity of the private realm is required to provide adequate respite and preparation for 'stepping up' into the public realm (Arendt, 1967/2020, p. 89,104; Hill, 2022).

Table 9

Summary of the implications

View of platformisation	Findings and implications	Prescription
 1.) New business models based on technology and 'sharing' values 2.) Global value chains of invisible human labour 	Platformisation reconfigures the modalities of work and labour with implications for economic <i>and</i> political life. Labourisation <i>undermines</i> the mnemonic dimension of the	Platform providers should be treated as participants in public life based on their effect on <i>how</i> we labour, work and act.
	public realm.	
3.) Covert exploitation of private activities; <i>digital labour</i>	Platformisation 'colonises' the life course and violates the sanctity of the private realm, a prerequisite for performative political action.	Platformisation should be understood as a complex and entangled process that affects both <i>overt</i> and <i>covert</i> labour. Its impact on the life course is likely profound but as yet poorly understood, necessitating further in-depth analysis of the platformised work process.
4.) An economic paradigm shift; 'totalitarian' surveillance capitalism; <i>statelike</i> entities	Platformisation radically transforms economic <i>and</i> political life. It provides the necessary counterbalance to prevent economic changes from enabling totalitarianism.	Platformisation can enable new forms of work-action and <i>bolster</i> the mnemonic dimension of the public realm. The platform infrastructure for spontaneous encounters and interaction must be safeguarded against economic exploitation.

Finally, the fourth view, 4.), sees *platformisation* as a new economic paradigm fostered by unscrupulous enterprises using methods of surveillance. Rhetoric of *imperialist* (Jin, 2013) or even *totalitarian* (Zuboff, 2019a) qualities introduced by platformisation signals a warning but limits it to its economic implications, i.e. seeing platformisation as a tool to achieve someone's profit motive. By drawing on the Arendtian discovery that political freedom is a function of a stable public realm and thereby the foundational configuration of labour and work, this inquiry

adds an important aspect to this argument, which counterbalances the often fatalistic-sounding claims in group 4.) by demonstrating that platformisation possesses qualities that might redeem our political capacity. These attributes are located in a 'blind spot' missed by the literature due to its preoccupation with economic factors. I engage with this view of *platformisation* more extensively in the following sections.

6.3 The missing link

The findings from this inquiry complement existing applications of Arendtian theory to *platformisation* by capturing data on shifts in all constitutive dimensions of activity (labour, work and action) and relating them to their impact on the public realm. The first two analyses confirm the 'platform as factory', where algorithmic control has mechanised workers' rhythms (cf. Márton & Ekbia, 2021) and which, by extension, undermines the foundations for performative action (cf. Schwarz, 2014). In this interpretation, platformisation represents a shift within human activity towards labour, a gradual creep towards a distributed version of Arendt's 'society of jobholders' (Arendt, 1967/2020, p. 309). Those advocating for an economic perspective of *platformisation*, either as organisation around a global value chain (e.g. Altenried, 2020; Dyer-Witheford, 2015) or as the *covert* exploitation of private activities as a form of labour (e.g. Ekbia & Nardi, 2017; Fuchs & Sevignani, 2013), corresponding to the views 2.) and 3.) outlined in the literature review, leave the political implications of such a profound transformation to the way we labour and work unaccounted for. This can be remedied by adopting an Arendtian perspective to complement the existing literature and laying out how the reconfiguration of labour through platformisation diminishes our capacity for political action and how undermining the integrity of the work process through algorithmic intermediation can compromise the stability of the public realm. The inquiry therefore acts on calls in the literature for a more integrated application of Arendtian theory in digitalisation research, arguing that we must "avoid developing simplified and/or abstract narratives about work [...]" (Fayard, 2021, p. 217). What Fayard (2021) does not consider when she muses on how action might be performed once labour and work have been automated is how activity and political life are mutually constitutive through world-building, i.e. value-driven and ends-oriented work. Without the critical mnemonic dimension of the public realm, speech and action cannot solidify and serve any purpose beyond their immediate context (see Arendt, 1961/2006a, pp. 3-6). As I have shown in this inquiry, OSIN/T communities, emergent from technology-driven changes to the way factual information is generated and distributed through

platforms, are prime examples of how articulation and remembrance processes have been transformed through platformisation.

6.4 Platform totalitarianism?

But what about platformisation's imperialist (Jin, 2013), totalitarian (Zuboff, 2019b) or *statelike* (Lehdonvirta, 2022) qualities, which are increasingly presented as revealing its true transformative (and potentially calamitous) nature? These arguments, corresponding to view 4.) in the literature review, require more carefully consideration, since they present platformisation as a process affecting society as a whole, rather than, for example, ways of doing business. I address them by drawing on the two contrasting dynamics of promoting and inhibiting political life revealed by the inquiry, which show how any changes to the modalities of labour and work might have implications for political life that are not immediately obvious. Applying an Arendtian perspective shows how the literature exhibits a blind spot regarding non-profit-oriented platformisation. Using Zuboff's *surveillance capitalism* as an example, I demonstrate a path on which this narrative of societal transformation can be complemented and advanced based on the findings presented in the previous chapter.

Zuboff's invocation of totalitarianism against which she contrasts her own concept of 'instrumentarianism' raises some issues. First, she supposes that totalitarianism was a political project operated through the means of violence by leaders bent on murder and the refashioning of souls (Zuboff, 2019b, p. 20). While comparable in terms of "dominating [...] human beings from within" (Arendt, 1951/2017), the concept of instrumentarianism that Zuboff proposes as the contemporary equivalent is, in her words, "a market project that converges with the digital to achieve its own unique brand of social domination" (Zuboff, 2019b, p. 20). Zuboff's view maintains the existence of a shadowy class of Silicon Valley type 'puppet masters', whose economic orientation (surveillance capitalism) controls the puppet of technology. She readily admits that "surveillance capitalism is an economic creation" and claims it is therefore subject to "democratic contest, debate, revision" and other forms of control (Zuboff, 2019b, p. 11).

Here, revisiting the Arendtian understanding of totalitarianism that Zuboff draws on is warranted. According to Arendt's seminal study on *The Origins of Totalitarianism* (Arendt, 1951/2017), totalitarianism is not a 'political' project but rather a movement that could rise from the total absence of political life (see Chapter 3.4.3). What her later ontological work in *The Human Condition* shows us is how the conditions for totalitarianism to foster, i.e. the absence of

any checks and balances that led to the calamities of National Socialism and Stalinism, are rooted in the configuration of work and labour on which political action can or cannot rest. The argument presented by Zuboff is stopped from unfolding further by being tied to the 'safe haven' of economic incentives, i.e. the profit-motive of ominous individuals—which has prompted the 'business as usual' criticism levied by Morozov (2019). The invocation of Arendtian thinking is thus not followed through to its inherent conclusion. If *surveillance capitalism* is reconfiguring the modalities of our work, then this will ultimately affect our ability to employ the very means we are supposed to use to curtail it: speech and action. The democratic forms of control over platformisation that we allegedly retain would eventually be eroded (cf. Zuboff, 2019b, p. 11), creating the conditions for anything—including truly 'radical evil' (Arendt, 1951/2017, p. 581) to fester. Like a fungus, totalitarianism might appear as a single violent upheaval, but is in fact only the final visible outgrowth of a gradual putrefaction of worldly institutions and infrastructure happening underground, out of sight from daily life.

The evidence presented in this dissertation related to new modalities of work under platformisation would suggest we are indeed moving in this direction. As platformisation expands labour across the life course and dismembers career paths under the banner of commodification or remote gig workers' attention is increasingly absorbed by their fully automated and opaque algorithmic management systems, we might be sorely tempted to see in these developments the preconditions of totalitarianism (Arendt, 1951/2017): a loss of genuine privacy through total *surveillance* (Zuboff, 2019a), a degradation of the 'permanent structures' required for political action in the virtual realm (Schwarz, 2014) and the imperialist doctrine of unimpeded expansion (Jin, 2013; Lehdonvirta, 2022).

However, this inquiry has further shown that platformisation unfolds its redemptive potential especially in the absence of a guiding profit-maxim, e.g. in the case of OSIN/T communities, who leverage the platform-native monitory affordances to verify the authenticity of information—a 'benign surveillance' of sorts. The values of stability and endurance central to the *mnemonic* dimension of the public realm are present in these spontaneous organisations which, through platform technologies, have become world-wide movements revitalising old hopes for citizen-led 'societal verifciation'. By analysing the full range of the Arendtian categories of activity, I have shown that platformisation contains the impulses for the redemption of political life by enabling new blended *work-action*. By combining insights from the literature with the

findings of this inquiry, I set out a path for how platformisation might be leveraged and which aspects of it ought to be relinquished to promote political life and prevent totalitarian excesses.

6.5 Redeeming platformisation

Arendt's vita activa provides the concepts and terminology to effectively dissect the 'big tent' phenomenon of platformisation. It acts as a missing link to theories of platformisation invoking Arendtian concepts, such as Zuboff's surveillance capitalism, by demonstrating how the changes brought about by the 'infusion of platforms' into daily life affect the quality of the public realm. In the inquiry presented in this dissertation, I pried apart platformisation to reveal that it affects the three constitutive domains of human activity in two distinct ways-by shifting their configuration towards labour and undermining the quality of the work process that stabilises the public realm and, inversely, by allowing new forms of work-action to flourish through technology. From these insights two general learnings can be drawn. First, the we must look out for genuinely novel forms of activity, such as the hybrid work-action performed by OSIN/T communities. Much of the academic discourse is preoccupied with how platformisation transforms existing industries-highly relevant from both the workers' and businesses' perspectives-but not sufficient to grasp the full range of implications for political life, which become evident only in the study of *platformised solutions to platformised issues*. Second, building on this first point, the argument advanced by Morozov (2019, 2022), that despite the exciting rhetoric of new forms of capitalism we are simply witnessing the regrettable business as usual of capitalistic exploitation, seems to be valid insofar as the assumption of a profit-maxim always underpins the literature. What this indicates is that the ongoing debate in the literature is too narrow in focus and could benefit from being complemented by an Arendtian perspective speculating on how a particular instance of platformisation might affect the integrity of the public realm and our capacity for political life.

What emerges from this inquiry is that platformisation is a multifaceted process and onesize-fits-all theories are unlikely to capture the phenomenon in its full breadth. Digital communication platforms, e.g. Reddit or Instagram, are powerful examples of platformisation because they a) form part of remote gig workers' extended workplaces (their communities of coping), b) host *overt* labour and work in the form of influencers, c) behind-the-scenes workers who screen and ,sanitise' content, d) *covert* valorisation or ,playbour' as well as e) being spaces of for-profit *surveillance* and f) novel work-action hybrids, such as OSIN/T. Many of the contemporary voices commenting on digital communication platforms, often including their creators and owners, understand them additionally as spaces for public discourse—a literal 'polis' in the clouds. This is perhaps best exemplified by Elon Musk commenting following his prominent acquisition of Twitter in 2022 that "[it] is the digital town square where matters vital to the future of humanity are debated" (Musk, 2022 cited in York, 2022).

Platforms are not only spaces *where*, but new ways of *how* we labour, work and act. Thinking of platforms as spaces for communicative interaction is an important aspect worth exploring and developing (e.g. Schwarz, 2014), but it is not in itself sufficient to ascertain the impact of *platformisation* (as a transformative process) on political life. This perspective focuses only on two of the constitutive dimensions of the public realm (Figure 5), *communication* and *expression*, and leaves a blind spot as to how our collective *memory* is affected by the way and quality in which we labour and work. What this inquiry demonstrates is that "Facebook and Twitter" (standing in for platforms in general) are really not "just places revolutionaries go"⁸² but have profoundly affected the when, where and how we perform the *work* of constituting a common factual basis for deliberative interaction. Rather than succumbing to the impression of impossibility that dealing with an unfathomable amount of truths declared in every direction through smartphone-equipped citizen-monitors might conjure up, amateur communities have devised strategies of technology-enabled *human interaction* to secure their ability to form opinions founded in factual reality (see Chapter 3.4.2).

The inquiry reveals that the logic of platformisation degrades the work experience while simultaneously providing new facilities for hybrid work-action to be performed. However, the technological infrastructure that enables online communities to perform 'knowledge generation and verification work' and 'archiving' to fortify the mnemonic infrastructure of the public realm still depends on proprietary platform providers driven by economic imperatives. Here, the diagnosis made by Zuboff, Lehdonvirta and others arguing in a similar fashion is helpful: today's platform providers have less in common with their socially responsible predecessors, the "great corporations", who "work[ed] in harmony with [our] institutions" (Roosevelt, 1901 cited in Gomory & Sylla, 2013, p. 102) than with their imperialist cousins, the *statelike* colonial East India or Africa companies. Assuming governmental privileges and powers, whether through

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https://web.archive.org/web/20230427142520/https://www.theguardian.com/commentisfree/2011/mar/07/facebook -twitter-revolutionaries-cyber-utopians (accessed on 27.04.2023)

surveillance or by establishing their own institutions of taxation, etc., they infuse our activity with the economic logic of infinite expansion that, according to Arendt (1951/2017), provided the conditions for totalitarianism to grow. Recognising their public role beyond being mere 'online marketplaces' or 'digital town squares', we should insist that purveyors of platformisation, who benefit handsomely from this technological transformation, should assume responsibility towards "all [business and society] constituents in toto" (Business Roundtable, 1981 cited in Gomory & Sylla, 2013, p. 142). As *platformisation* reconfigures how we *labour*, *work* and *act*, responding appropriately becomes a vital political question. For example, public ownership of the platform infrastructure underpinning OSIN/T communities, ought to be explored as a policy. Further, increased scrutinisation of the working conditions in the remote gig economy and an adaptation of existing labour laws to suit the nature of distributed OLMs should be made a priority to counteract the ongoing labourisation identified in this study. Along these lines, interventions or guiding principles based on the vita activa could be designed that ask 1) how changes to our activity impact the public realm, e.g. by weakening or strengthening its mnemonic foundations, and 2) how platformisation can be leveraged constructively to improve the conditions for political life.

What this inquiry attempts is to tell a rich narrative about the future of work by drawing on Arendtian theory (cf. Fayard, 2021, p. 217). In doing so, it contributes to the literature on platformisation by complementing existing economy-centric analyses of platformisation with their implications for political life according to Arendt's vita activa, thereby addressing a call in the literature for a more extensive engagement with Arendt's theory. It further engages with a powerful argument invoking Arendt's concept of totalitarianism to paint platformisation as a process of decay, by demonstrating that it is under the surface a multifaceted transformative development. While the gig economy does indeed correspond to Arendt's notion of continuous labourisation undermining our political capacity, this inquiry shows how platformisation also enables novel forms of work-action, facilitating cross-border virtual political life. Platformisation thus simultaneously enables and inhibits political life. This leads to another central contribution, a normative perspective on platformisation that emphasises the infrastructural qualities of digital platforms as space and method for informational work. Finally, this discussion demonstrates how Arendt's theoretical apparatus can be employed to evaluate contemporary technologies 65 years after The Human Condition was published by tracing their effect on the configuration of activity and mapping it onto the public realm.

7 Conclusion: The post-human condition

This chapter concludes the inquiry presented in this dissertation by briefly summarising the key insights, highlighting its contributions to research and practice, setting out some suggestions for how further investigation might improve our understanding of platformisation and, finally, presenting a speculative outlook on how the *vita activa* touches on other contemporary and emergent technological issues.

7.1 Summary of the dissertation

This dissertation began with an introductory chapter setting out platformisation as a transformative process affecting a central aspect of our daily lives, *the way we work*. It presented some of the potent narratives of how the 'future of work' might play out on digital platforms and highlighted how the political theory of Arendt partly anticipated these predictions and how others have taken a new, unprecedented direction. As warnings about hegemonic, imperialistic or even totalitarian tendencies of platformisation are sounded, a strong baseline of empirical and theoretical research is needed to separate alarmist voices from those demanding action. Arendtian theory held promise as an analytical framework to 'look under the hood' of platformisation, but applying it first required careful operationalisation.

Following this, I set out to define platformisation as the "penetration of infrastructures [...] and [the] reorganisation of cultural practices and imaginations [around platforms]" (Poell et al., 2019, pp. 5–6) from which I departed into the inquiry and outlined key debates in the current academic literature in Chapter 2. What emerged from the literature review were four distinct views of platformisation which are nested in one another, a transformation of *business models*, a global *value chain* perspective, the *covert exploitation* of behaviour and *proto-totalitarian* domination practices. What these views have in common is an understanding of platformisation as an essentially economic phenomenon—a transformation initiated to fulfil profit motives that affects livelihoods. Even where concepts such as *surveillance* or *imperialism* are invoked to understand platformisation, the argument is short-circuited by classifying platformisation as a market project and the consequential connection between changes to our activity and the (loss of) capacity for political action is left unexplored.

In Chapter 3, I introduced the political theory of Arendt and developed an analytical framework to evaluate platformisation in terms of its wider impact on political life. To begin, I

contextualised Arendt's world of ideas in her tumultuous biography and mapped the origins of her ideas to key literary influences. In doing so, I aimed to make her sprawling philosophical and political writings accessible without seeming obscure. Owing to her peculiar fragmentary historical method and the device of etymological distinction, which she frequently employs, the central terminology of *labour, work* and *action* can only be understood against a diligently set out contextual backdrop. By layering this tripartite configuration of human activity onto a model of the public realm, which is qualified by *expression, communication* and *memory*, it became possible to construct a narrative of platformisation extending beyond its impact on the modalities of work and labour. This model of the *vita activa* (Figure 5) formed the guiding analytical framework of the empirical analyses of this inquiry.

Having identified a blind spot in the academic literature on platformisation and having introduced the *vita activa* as a suitable analytical framework to address it, I turned to the empirical core of the dissertation in the fourth chapter. Here, I presented abductive inquiry as the methodology and elaborated its pragmatist epistemological underpinning. I then proceeded to outline research strategies and methods for three analyses: 1) a sequence analysis of gig workers' occupational trajectories, addressing how the modalities of *labour* are transformed under platformisation, 2) a topic model of remote gig workers' discourse on community platforms, investigating how platformisation affects their relationships with their *work* processes and 3) a qualitative content analysis of remote OSIN/T communities, which asked how platformisation affects activity that defies easy categorisation as work or labour. I further reflected on the plausibility of the overall research design and reconciled the chosen observational methods with Arendt's understanding of the social sciences.

Chapter 5 presented the findings of the inquiry in two major tranches, reflecting how the abductive research process unfolded by generating hunches (from the literature), confirming them ('the *platform as factory*') and then revising the overall understanding of platformisation based on *anomalous* findings ('the *platform as polis*'). Interpreting the findings of the three analyses using the Arendtian terminology and concepts established in the third chapter revealed that platformisation had discrepant effects on the configuration of activity. First, the combined findings of the first two analyses demonstrated that, as a process, it is expansive along the life course and creates modalities that are not conducive to *work* (the self-actuated activity of *homo faber*), e.g. by designing the workplace (as a space for encounters) out of the gig economy and by intermediating the work process through algorithmic governance. I interpreted this as

labourisation, which, according to the *vita activa*, would lead to a gradual destabilisation of the public realm by depriving its mnemonic foundation of the stability it is imbued with through value-driven work. Second, the findings showed the opposite dynamic in the third analysis—that platformisation can enable novel forms of activity blended between *work* and *action*. Therefore, since platformisation as a transformative process could, according to the *vita activa*, both inhibit and enable political life (and thus create or deny the conditions for totalitarianism), identifying the conditions under which it does one or the other becomes a key for policy and design prescriptions.

Finally, the discussion in Chapter 6 synthesised the findings of the inquiry with the reviewed academic literature by developing an understanding of the *duality of platformisation* (as potentially increasing or decreasing 'world-alienation'). It revealed that portraying platformisation as a wholly negative transformation—a process of decay of the public realm and political life—captures only part of its nature and might distract us from harnessing its redemptive potential. Based on this, I called for reconsidering platforms not only as spaces for work and encounter ('*where*') but also new modes of activity ('*how*'). What this dissertation showed is that platformisation, even where it superficially resembles only a new business model or a way of valorising consumption patterns, has wide implications for our political life. The *human condition* is today—in many areas of life—inextricably platformised. Understanding how we work and speak to each other on and through platforms is therefore always also a political question. This insight ought to guide the way platforms are designed and regulated in the platformised world.

7.2 Contributions to research and practice

The research presented in this dissertation makes multiple contributions to scholarly discourse on platformisation and the practice of designing and regulating it. First, it 'released' (from the abductive cycle) an expanded understanding of platformisation that complements the existing academic literature. The developed concept of the *duality of platformisation* slots neatly into the ongoing debates by shining light on its blind spot, i.e. that, platformisation is always *also political* and, when it appears without its profit-maxim appendage, it can be a constructive political force. From this, I derived the second contribution, a set of high-level prescriptions for how the redemptive potential of platformisation could be promoted: a.) that large platform providers, much like their imperialist forebears, e.g. the colonial East India or Africa companies, should be considered as political participants in the public sphere, b.) that the platform

infrastructure underpinning novel *work-action* must be safeguarded, possibly by transferring its ownership to the public and c.) that any new platform business model should, if it expands to a certain level or at a certain rate, be audited in terms of its potential impact on activity and political life. We should be watching closely as large corporations concentrate their influence in the platformised world by attempting to acquire (often unprofitable) platforms, such as Discord⁸³, Twitch⁸⁴ or Github⁸⁵, which, as I have demonstrated, can underpin new forms of work-action.

In terms of a methodological contribution, this dissertation further demonstrated how abductive inquiry has matured into a research methodology ideally suited for the broad mixedmethods research demanded by the social sciences. Establishing the appropriate standards to evaluate abductive research designs, e.g. in terms of the plausibility of their meta-inferences, without falling back onto the quantitative paradigm and its yardsticks of validity and reproducibility (Venkatesh et al., 2013), is a gradual process and this dissertation adds a further point of reference and orientation for future work choosing this approach. It also contributed insights into innovative research methods that have been, to my knowledge, not previously or only sporadically applied to digital platforms, such as *social sequence analysis* and *topic modelling*, thereby increasing the range of methods available for platform researchers.

Over the process of writing this dissertation (see Chapter 4.3.1) the research (or parts thereof) was presented to various scholarly communities during conferences, seminars and research visits, including platformisation studies⁸⁶, organisation studies⁸⁷, economic sociology⁸⁸

⁸³ Microsoft intended to acquire the community platform Discord in 2021, though no deal has been finalised. See https://web.archive.org/web/20210323022143/https://www.bloomberg.com/news/articles/2021-03-23/microsoft-said-to-be-in-talks-to-buy-discord-for-more-than-10b (accessed on 30.04.2023).

⁸⁴ The streaming service Twitch was acquired by Amazon in 2014. See: https://web.archive.org/web/20140825204010/http://blog.twitch.tv/2014/08/a-letter-from-the-ceo-august-25-2014/ (accessed on 30.04.2023).

⁸⁵ The open source collaboration and version control platform Github was acquired by Microsoft in 2018. See: https://web.archive.org/web/20220209142725/https://techcrunch.com/2018/06/04/microsoft-has-acquired-github-for-7-5b-in-microsoft-stock/ (accessed on 30.04.2023).

⁸⁶ During the regular *Platform Economy Interest Group (PEIG)* seminars hosted by Professor Vili Lehdonvirta at the Oxford Internet Institute.

⁸⁷ During the EGOS (Charlton-Czaplicki & Márton, 2022) and WORK2021 (Charlton-Czaplicki & Margaryan, 2021) conferences.

⁸⁸ During the SASE (Charlton-Czaplicki & Hukal, 2022) conference.

and (political) communication studies⁸⁹, generating lively debates and interest in Arendtian theory as a lens for evaluating platforms and other contemporary technologies. As Arendt's political theory cyclically resurfaces in mainstream media and academic discourse, the 'translational work' of connecting her vast and often frustratingly unsystematic corpus of writings to contemporary phenomena becomes increasingly important. It is my intention that my research stimulates further debate about how Arendtian ideas are used today and how their potential might be unfolded in future projects.

7.3 Future research

This dissertation showed that the actual transformation brought about by platformisation is subtle, drawn out and not immediately evident. For example, the destabilisation of the public realm through the undermining of the value-oriented work process is not sudden but creeping. Much like erosion, it often becomes an issue only when the integrity of the affected construction is threatened. By establishing the link between the configuration of activity and political life, Arendt empowers us to recognise such developments before it is too late and the absence of 'worldly' safeguards paves the way for totalitarianism. This analytical device can be turned towards other technological developments supposedly bringing about the 'future of work', such as the recent emergence of powerful AI models, which—based on the rate of opinion pieces and scholarly publications—are set to radically alter our terms of engagement with the world of work.

The subtlety of the changes brought about by platformisation demands further research, digging deep into the composition of the work process itself. The research presented here relied only on observational methods to negotiate between the academic literature, Arendt's wide range of writings and a multifaceted phenomenon. Building on the presented work, future research could shift this analysis onto the micro-level, e.g. through in-depth qualitative interviews or by analysing trace data generated by transactions made in the gig economy. A more granular perspective might further shine light onto which aspects of platformisation are causing the degradation of the work process perceived by workers or which factors prompt workers to leave the gig economy or (re-)enter it, questions left unanswered by this inquiry.

⁸⁹ During my visiting fellowship at the Weizenbaum Institute for the Networked Society in 2022 and the IJPP (Charlton-Czaplicki et al., 2022) conference.

Arendtian political theory is a profound resource, which offers further avenues to explore and from which to leverage concepts that apply to platformisation, many of which I have only touched upon or not covered at all in this dissertation. For example, despite its 'labourising' tendencies which I have laid bare over the previous sections, the (remote) gig economy holds significant potential for certain population groups, a point emphasised by the large proportion of workers' with a migration background in the presented analysis of UKHLS panel data (see Table 5). It provides a pathway to earnings for individuals who find themselves outside the institutions conventionally governing access to labour and work. Such groups might include *migrants and refugees* or any people finding themselves marginalised in their physical locations but in possession of in-demand tradeable 'skills' and access to the internet⁹⁰. Arendt was greatly concerned for groups deprived of the "right to have rights" (Arendt, 1951/2017, p. 388) and investigating how platformisation might furnish individuals with de-facto access to economic and legal institutions or fence them into virtual fiefdoms is a promising angle for further exploration, which could potentially reveal additional redemptive properties.

Finally, we have learned that from radical changes to the configuration of work and labour new possibilities for political action, such as that performed by OSIN/T communities, are born. A revitalisation of 'societal verification' is desperately needed in the face of looming technological threats, such as AI-generated deepfakes, for which traditional media institutions are woefully underprepared. We must assume that any future wars will be 'networked wars' (Tett, 2022) and retaining the 'informational lifeline' required to freely form opinions has become a central concern in the *platformised world*.

7.4 Outlook

The themes covered in this dissertation, *the human condition* and our faculty for political action, are universal and the Arendtian lens helps us understand and brace ourselves for other emerging technological developments that might threaten the integrity of our political life, such as the rise of powerful artificial intelligence systems. Noam Chomsky recently described ChatGPT, the prominent poster-child of large-language-models, as exhibiting "something like the

⁹⁰ This powerful narrative has inspired numerous initiatives, e.g. the NGO LearningLions, which attempts to furnish youths from economically deprived regions with a skill set suited for participation in the remote gig economy (see https://web.archive.org/web/20230213205253/https://www.learninglions.org/ accessed on 13.02.2023).

banality of evil: plagiarism and apathy and obviation"⁹¹. The chat bot, regurgitating information assembled from its undoubtedly vast archives and governed by opaque protection mechanisms against accidently making insensitive or outright offensive utterings, presents us with 'declarative' knowledge (see Chapter 3.4.3) thinly veiled in 'scientific-sounding' reasoning. When pushed, unable to actually justify its convictions, it reverts to a "just following orders" defence of the Eichmann kind, fully embracing the esoteric roots of its purported 'knowledge'. By effectively *lying* and reiterating a non-truth, i.e. a statement that does not emanate from relational deliberation, ChatGPT is performing political action (see Chapter 3.4.2).

65 years after *The Human Condition* was published, it remains a rich repertoire of profound insight into the 'in-between' of work and politics—how they are linked and mutually constitutive. Arendt's late work, in particular the uncompleted *The Life of the Mind*, contains a host of insights into the intimate relationship between our ability to *think* and our faculty for speech and political action. This internal dialogue, which she found famously lacking in Eichmann and curiously pronounced in Shakespeare's Richard III, ceases under totalitarian conditions, where truth is wholly esoteric and 'unknowable'. As we move into a world where the technological threats emanate from within our pockets (Runciman, 2020a), be it in the form of attention-monopolising and behaviour-shaping social media platforms or as truth-spewing AI chatbots, we ought to don the diving bell and go 'pearl diving' into the profound depths of Arendtian political theory and philosophy.

This dissertation demonstrated that questions about the *platformisation of work and communication* are always also political questions. If we act on this insight and ask how emerging technologies affect political life, even when the two seem unrelated at first glance, we might come out ahead.

⁹¹ See: https://web.archive.org/web/20230309100853/https://www-nytimes-

com.cdn.ampproject.org/c/s/www.nytimes.com/2023/03/08/opinion/noam-chomsky-chatgpt-ai.amp.html (accessed on 09.03.2023).

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9 Appendix

Appendix A

Coding schema for the analysis of dynamics between OSIN/T communities, publics and journalistic intermediaries

Code	Description
Input	All codes related to the inflow of information into the OSIN/T process
— Type of content	Information about the data type
— — Audiovisual	E.g. video, imagery or recorded radio broadcasts
— — Web resource	E.g. news or government website
— — Personal source	Information shared by someone known to the poster
——Live Stream	Live audio or video broadcast
— Origin of content	Information about the data source
— — Social media	E.g. Twitter, Facebook, Youtube, etc.
— — News website	E.g. Reuters, BBC, etc.
— — OSIN/T website	E.g. Bellingcat, etc.
— — Official website	E.g. Russian / Ukrainian ministry, university, NGO, etc.
— — Other / missing	All other sources
— Method of introduction	How content is introduced to the community
— — Commentless	No contextual information provided
— — Commented	Contextual information provided
— — — Requesting OSIN/T from community	E.g. imagery with request for geolocation
— — — Requesting OSIN/T from specific user	Request directed at specific user / moderator

— — — Providing initial assessment	Posting includes pre-assessment of trustworthiness, validity, etc.
Throughput	All codes related to the processing of information
— Referencing input	Discussion related to the quality of the source
— — Credibility	Establishing the credibility of the information
— — Context	Providing circumstantial information about the source / event
— — Emotional reaction	Voicing an strong personal reaction to a piece of information
— OSIN/T method	Discussion related to OSIN/T methodology
— — Speculation	Voicing a speculative opinion about potential findings
— — Incremental assistance	Assisting an ongoing OSIN/T process by providing additional information
— — Next steps	Discussing a strategy for further processing
— — Methodological discussion	Discussing which OSIN/T method should be applied
— — Concerns about process validity	Discussing potential issues associated with a choice of method
— — Community-centric workflow design	Proposing a workflow to process a steady inflow of information. E.g. interpreting radio transmission snippets
— — Splitting and allocation workload	Applying a divide & conquer strategy to larger input
— Publishing outcome (internal)	Moving verified information to the appropriate channel, marking it as completed
Output	Instances of OSIN/T output in external publications / services

— Higher education	Report / resource published by a university, institute or other higher education facility
— External validation	Pass-through to external platform for further validation, e.g. a collaborative map service
— Wiki	Knowledge-base, e.g. Wikipedia
— Legal	Legal resource, including archives
— Journalistic publication	News and other journalistic media
— Community publication	Community-driven or OSIN/T resource, e.g. blogs
— OSIN/T community	Publication to external OSIN/T community with explicit / implicit request for further processing
— Live stream	Live coverage of OSIN/T process / results through streaming platform
— Social media	Publication of results to social media, e.g. Twitter
Institutional order	Codes referring to platform related affordances / constraints
— Discord	* specific to the Discord platform
— — ToS	Platform terms of service and instances of violation
— — Channel structure	Discussion channel system / logic
— — Private messaging	Use of user-to-user communication channel & privacy issues
Miscellaneous	Numerous codes covering Discord- specific technology, including search feature, moderator flagging, emojis, redactions, thread-structure, direct tagging, etc.
— — Bots & automation	Server governance using bots and automated features

— — — Crowd control	Directing users to appropriate channels using scripted messages
— — — Automatic translation	Server-side mechanism to automatically translate non-English language content, e.g. from Russian
— — — Flagging / source warning	Automated warning messages displayed adjacent to previously problematic sources
— — — Channel hygiene	Detection of idle chatter and automated warning messages
— — — Server / channel rules	Scripted regular reminders of server and channel rules and best practice
— Other OSIN/T	Instances of recruiting / soliciting assistance from other external OSIN/T communities
— Other platforms	Integration of external platforms / services
— — Office / productivity apps	E.g. Google Spreadsheet
— — Community-owned platforms	Discussion related to setting up a community-owned platform service, e.g. Bellingvat volunteer programme
— — Bridging services	Making available analogue resources, e.g. radio transmission, to the community by using an intermediary streaming platform as connecting link
— Governance	Explicity discussion related to platform / server / channel governance
— — Suitability evaluation	Community discussion about the advantages / disadvantages of platform infrastructure such as Discord for OSIN/T purposes
— — Community involvement	Involving community members in governing the Discord server (setting rules, channel structure, moderation, etc.)
Other	
— Multihoming	Membership in multiple OSIN/T groups or other institutions (e.g. journalistic)

— Motivation	Expressions of encouragement, motivational statements and discussions about self-image as OSIN/T practitioners
— Onboarding	Advice for newcomers, guidance towards technical resources
— Legality	Discussion surrounding the legality of the OSIN/T process
— Codex / ethos	Discussions about ethical issues regarding OSIN/T and community self-image / ethos

Note. This coding schema was developed collaboratively with Anna-Theresa Mayer during my research stay at the Weizenbaum Institute for the Networked Society in Berlin in 2022 (see also Footnote 48).

Appendix **B**

Overview of minor grammatical corrections and wording changes implemented according to the suggestions provided by the assessment committee

- ∞ On p.1 the omission of 'important'
- ∞ On p.2 the addition of 'frequently'
- ∞ On p.4 the addition of 'contracted to' to explain the acronym 'OSIN/T'
- ∞ On p.8 the addition of a brief explanation of the terms *overt* and *covert* as they are used in this context
- ∞ On p.20 the minor rewording of the explanation of the term *gig economy* to emphasise it being only one interpretation among others
- ∞ On p.79 the partial deletion of a sentence contrasting abductive reasoning with postmodern thinking
- ∞ On p.99 the replacement of 'transition' with 'substitution'
- ∞ On p.154 the omission of the word 'full' to account for different perspectives on algorithmic management

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