Received: 22 March 2021 | Accepted: 7 February 2022

DOI: 10.1111/ntwe.12234

REVIEW ARTICLE

Charting platform capitalism: Definitions, concepts and ideologies

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Funding information
Durham Doctoral Studentship

Abstract

The term 'platform capitalism' captures a dynamic set of new work modalities that are mediated by platforms and have been brought about through advances in Information and Communication Technologies, adjustments in consumption modes and preferences, and changes in how work is conceived. Beyond work-related changes, the ascent of platform capitalism reflects wider societal and political as well as economic changes. While research on platform capitalism and its manifold manifestations abounds, there is a lack of consensus in the literature regarding its key features and characteristics. Seeking to provide conceptual clarity and to contribute to efforts of theorization, we here analyse four main facets of platform capitalism, namely, crowdsourcing, sharing economy, gig economy and platform economy. We review key definitions of each term and provide an overview of their distinctive features. This allows us to identify both similarities and differences in the framing of these four terms. We also delve into the ideologies underlying these four terms, thus providing a critique of the neophilia characterizing the discourse framing platform capitalism.

KEYWORDS

crowdsourcing, gig economy, ideology, platform capitalism, platform economy, sharing economy

INTRODUCTION

Digitalization can certainly be seen as the fuel for the transformation and expansion of the market economy in the 21st century (Aroles et al., 2019). Under the combined effect of advances in Information and Communication Technologies (ICTs), wider societal changes, and new modes of consumption, platform capitalism gradually emerged and flourished as a 'new' economic system and model (Srnicek, 2017a). The concept of platform capitalism, in essence, places 'the platform at the centre of critical understandings of digital economic circulation' (Langley & Leyson, 2017, p. 13). The ascent of platform capitalism is a highly complex phenomenon that testifies to an ambivalent relation to the world of work. Platform capitalism has been researched from many different disciplinary—work and employment, sociology, computer science and innovation—as well as conceptual angles, resulting in both a proliferation of research on this topic and a parallel lack of conceptual clarity. This, we believe, points to the necessity to develop detailed and precise descriptions of the main tenets of platform capitalism.

Here, we aim to contribute to further clarifying the remits of platform capitalism by focusing on four of its main facets, namely *crowdsourcing*, *sharing economy*, *gig economy* and *platform economy*. Although these four terms are all premised on the emergence of Web 2.0, the subsequent development of digital platforms as well as a wide array of cultural, economic, financial and political changes, they present significant differences that clearly set them apart. These differences are particularly noticeable when considering the socioeconomic background and context behind their respective development. Yet, these terms tend to be used interchangeably, as their respective meanings are conflated and amalgamated in a broader discourse of novelty and transformation. The hype and grandeur that envelop current debates on platform capitalism are crystallized around the themes of change, freshness and novelty, pointing to the neophilia underlying such debates.

Clarifying crowdsourcing, sharing economy, gig economy and platform economy is thus not only conceptually important but also a timely task as these feature prominently in academic journals, practioner outlets and in the media, which in turn tends to further obfuscate their meaning. We here concur with Codagnone and Martens (2016, p. 17), who argue that existing definitions are mostly 'ostensive' (by pointing and exemplifying) rather than 'intentional' (connotative), thus calling for further conceptual clarity. This is a significant issue that, we contend, hinders our ability to theorize and elaborate on these facets of digital capitalism and *ad infinitum* contributes to the linguistic brouhaha that surrounds discussions on the 'new' world of work.

Against this background, this paper provides an overview of the four facets of platform capitalism mentioned above (namely crowdsourcing, sharing economy, gig economy and platform economy), presents their core features and highlights elements of disagreement in the literature. It then touches upon the question of ideology and critically explores the role of the discourse of novelty in the materialization of platform capitalism.

NAVIGATING THROUGH DEFINITIONS AND CONCEPTS: FOUR FACETS OF PLATFORM CAPITALISM

Crowdsourcing

The term 'crowdsourcing' was coined by Howe (2006a) to describe an emerging type of outsourcing: 'the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people' (Howe, 2006b). While the term itself might be less than 20 years old, the concept of crowdsourcing is clearly not new. As early as 1714, the British government offered £20,000 to whoever could help solve the 'Longitude Problem', thus relying on the general public (Hossain & Kauranen, 2015; Saxton et al., 2013). In 1884, the Oxford English Dictionary recruited some 800 readers to categorize words (Hossain & Kauranen, 2015). In the 1990s, individuals and institutions began volunteering spare computing cycles to help solve major research projects (Greengard, 2011). With the development of ICTs, a new type of Internet-based crowdsourcing emerged, the most iconic of which being Wikipedia. Members of the public can also share, in online databases, scientific data that they collected or processed themselves—citizen science (Bonney et al., 2014). These various examples show that crowdsourcing is premised on the well-established idea that crowds can solve problems beyond the capabilities of experts (Hossain & Kauranen, 2015; Levy, 1997).

The story behind the term crowdsourcing is more complex than first appears. Wolfgang von Kempelen, a highly skilled Hungarian mechanic, built the 'Automaton Chess Player' in 1769 with which he toured throughout Europe. In essence, this automaton is just an elaborate scam, which relies on a subtle design: a human chess master is hidden in the 'chess robot', and manipulates its actions, thus creating the illusion that the robot is an unbeatable artificial intelligence (Dudley & Tarnoczy, 1950). In fact, it is human intelligence that truly powers the automaton. This invention, called the 'Turk' or 'Mechanical Turk', inspired Amazon in the naming of its crowdsourcing website, which unveils another facet of crowdsourcing. The concept of crowdsourcing is thus wide-ranging, resulting in the development of a multitude of different definitions. Table 1 presents some of these definitions.

The expansion of the internet and ICTs have significantly fuelled the surge of crowdsourcing; with Web 2.0, two-way communications have become easier to manage, work requesters can access information at lower costs and production can be distributed and conducted online more easily than previously (Battistella & Nonino, 2013; Greengard, 2011; Satzger et al., 2013). At the onset of the shift from outsourcing to crowdsourcing, open-source movements initiated almost a 'cultural shock' as in the majority of cases, crowds contributed to the public good for free (Barnes et al., 2015; Kogut & Metiu, 2001). Crowdsourcing allows citizens' knowledge to flow into a platform. In turn, the platform acquires knowledge and access to outstanding talents without having to hire employees. This process bears similarities to the concept of open innovation proposed by Chesbrough et al. (2006), who contend that the inflow of 'external knowledge' will accelerate internal innovation and further expand the market. Gassmann et al. (2010) pointed out that the development of ICTs has fostered open innovation, which then spread to more mainstream industries, including software and electronics (Chesbrough, 2003).

Following the large-scale application of crowdsourcing in various industries, financial compensation appeared and gradually became commonplace (Barnes et al., 2015), but there was never a clear consensus as to whether crowdwork should be remunerated (Hammon & Hippner, 2012; Hossain & Kauranen, 2015), and if so, how (Felstiner, 2011). Arguably, the introduction of financial incentives changed crowdsourcing, the remits of which are debated in literature (see Schenk & Guittard, 2011), even though comparative research has shown that crowdsourcing requesters are predominantly organizations (Hossain & Kauranen, 2015; Satzger et al., 2013; Saxton et al., 2013). Examples of individuals acting as requesters are far less uncommon in the literature (Kleemann et al., 2008). Table 2 provides an overview of the main features of crowdsourcing, highlighting the main conceptual differences found in the literature.

TABLE 1 Illustrative definitions of crowdsourcing

Definition	Reference
'The act of taking a job traditionally performed by a designated agent (usually an employee) and **outsourcing it to an undefined, generally large group of people** in the form of an open call.'	Howe (2006b)
'A type **of participative online activity** in which an individual, an institution, a non-profit organization, or company proposes to a group of individuals of varying knowledge, heterogeneity, and number, via a flexible open call, the voluntary undertaking of a task.'	Estellés-Arolas and González-Ladrón-De-Guevara (2012, p. 197)
'The act of **outsourcing tasks originally performed inside an organisation**, or assigned externally in form of a business relationship, to an undefinably large, heterogeneous mass of potential actors. This happens by means of an open call via the Internet for the purpose of free, value creative use.'	Hammon and Hippner (2012, p. 163)
'**A new paradigm for performing computations** in Web-based environments by utilizing the capabilities of human workers.'	Satzger et al. (2013, p. 547)
'A **sourcing model** in which organizations use predominantly advanced Internet technologies to harness the efforts of a virtual crowd to perform specific organizational tasks.'	Saxton et al. (2013, p. 5)
'A new level of outsourcing, in that rather than offshore jobs to low-cost locations, companies can **outsource functions once performed by employees to an amorphous and generally large pool of individuals** using an open call over the Internet.'	Bergvall-Kåreborn and Howcroft (2014, p. 215)
'The **outsourcing of work to a large group** through an open call made possible through advances in technology.'	Barnes et al. (2015, p. 17)
'A form of outsourcing, although it typically does not require a formal contraction which is found in **outsourcing tasks to an external organization specialized in that task to perform**. Crowdsourcing is also meant to reach a wider range of people, which may sometimes be required to get a solution correctly and efficiently.'	Hosseini et al. (2015, p. 44)
'**Outsourcing, over the Internet, of tasks**, which were typically done by employees of a company, to an undefined group of potential contractors.'	Schörpf et al. (2017, p. 44)
'The practice of **soliciting work from a "crowd"** via an open call on the Internet.'	Lehdonvirta (2018, p. 14)

Sharing economy

The expression 'sharing economy' was coined by Lessig (2008) to emphasize the act of sharing and exchanging resources without operating a formal transfer in ownership (Puschmann & Alt, 2016). More specifically, sharing can be defined as 'the act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking something from others for our use' (Belk, 2007, p. 126). In that sense, it is very much premised on the notion of

TABLE 2 Main features of crowdsourcing

		Main features
Work		
	Broad understanding	Crowdsourcing does not need an active shift from current employees (or again, contractors) to the crowd; it can start with the crowd (Howe, 2006a)
		Different levels of skills are required (Felstiner, 2011)
		Human process tasks that are difficult to implement in software (Satzger et al., 2013)
		A wide range of pay levels (Hammon & Hippner, 2012; Hossain & Kauranen, 2015)
	Narrow understanding	A job traditionally performed by a designated agent (usually an employee) (Greengard, 2011; Satzger et al., 2013; Schörpf et al., 2017)
		Content creation, problem-solving and corporate R&D (Brabham, 2008; Kleemann et al., 2008). Usually innovation-related work (Saxton et al., 2013)
		Compensated at piece rate (Felstiner, 2011)
		Using workers' spare resources (Kleemann et al., 2008)
Platform		
	Broad understanding	Web-based environment (Barnes et al., 2015; Brabham, 2008; Satzger et al., 2013; Saxton et al., 2013)
	Narrow understanding	Web 2.0 (Hammon & Hippner, 2012)
		Intermediary (Battistella & Nonino, 2013; Hossain & Kauranen, 2015; Schörpf et al., 2017; mediator Hirth et al., 2013)
Workers		
	Broad understanding	Large network of potential labours (Djelassi & Decoopman, 2013)
		Open call (Barnes et al., 2015; Djelassi & Decoopman, 2013)
		General public (Kleemann et al., 2008)
	Narrow understanding	Undefinably large, heterogeneous mass of interested internet users (Hammon & Hippner, 2012)
		Amorphous collection of individuals sitting in front of computer screens (Felstiner, 2011)
		Diversity, largeness, suitability of independent contractors (Pongratz, 2018)
		Undefined, nonprofessional and heterogeneous virtual crowd (Saxton et al., 2013)
Requesters		
	Broad understanding	Requesters are mostly companies, but other project initiators cannot be excluded (Hammon & Hippner, 2012)
	Narrow understanding	Company or organizations (Hossain & Kauranen, 2015; Satzger et al., 2013; Saxton et al., 2013)
		Profit-oriented firm (Kleemann et al., 2008)

peer-to-peer (P2P) collaboration and, by extension, P2P consumption (see Parguel et al., 2017). While some have suggested that transactions in the sharing economy could happen between individuals and businesses (Puschmann & Alt, 2016), others have argued that this would amount to micro-entrepreneurship rather than sharing (Codagnone & Martens, 2016).

Here again, the notion of sharing is not new and is premised on a much older 'quid pro quo' logic. An 'early' and well-known example is 'car-sharing', an initiative launched in 1948 in Zurich under the operation of community-based, not-for-profit cooperatives (Codagnone & Martens, 2016). As in the case of crowdsourcing, the development of ICTs played an important role in the evolution of the 'sharing economy', as it fostered new possibilities of sharing, thus materializing the so-called 'sharing turn' (Grassmuck, 2012). Changes in consumption also greatly facilitated the development of the sharing economy, most notably with a move from 'owning' to 'accessing' (Bai & Velamuri, 2020; Hamari et al., 2015). Some saw in the sharing economy a way of addressing ecological and societal concerns, including carbon and eco-footprints (Hamari et al., 2015; Schor & Fitzmaurice, 2015). Importantly, various framings of the concept of sharing economy have emerged (Arvidsson, 2018). Table 3 presents indicative definitions of the term 'sharing economy'.

In recent years, new ways of sharing emerged and older ones were revisited. Following on from the 2009 recession, deploying unused assets for economic gain took on added appeal and schemes aimed at mobilizing idle assets or capital exploded (Schor & Fitzmaurice, 2015). A new form of sharing—'stranger sharing'—sprung up and developed rapidly (Schor & Fitzmaurice, 2015; Schor, 2016). In essence, it became the basis of our current understanding of the sharing economy. Schor and Fitzmaurice (2015) argue that the concept of sharing economy should also include exchanging services in which the intangible resource that individuals would lease is their time. Essentially, platforms then act as 'time banks', aiming to avoid the monetization of market transactions and making the relationship between parties more equal (Reisch & Thøgersen, 2015). Time banks date back to the 1980s; Seyfang (2004, p. 63) define time bank as 'a community currency, based upon time as a unit of value'. Those platform workers who 'share' their time perform an action that is exchanged for value with work providers (Spohrer et al., 2007).

Belk (2014) distinguishes between 'true-sharing' and 'pseudo-sharing'. At the onset, sharing was not for profit, thus constituting 'pure sharing' (Lessig, 2008). With 'pure sharing', temporary access is required rather than ownership, and no compensation is offered during transactions. Departing from this type of platform, the overwhelming majority of recent sharing platforms are clearly commercially oriented (Codagnone & Martens, 2016) and therefore considered as 'pseudo-sharing'. This has led some to argue that the honeymoon of the 'sharing economy' is over (Codagnone & Martens, 2016) and that the sharing economy, as a concept, became a contradiction in itself (Frenken & Schor, 2019; John & Sützl, 2016). As such, the term 'sharing economy' is characterized by contradictory features and framings, the main features of which we present in the table below (see Table 4).

Gig economy

The term 'gig' is a direct reference to the music industry. Dating back to 1926, it was essentially 'musicians' slang for an engagement at a single venue' (Dalzell & Victor, 2014, p. 986). This origin is indicative of the type of work—temporary, precarious and erratic—that the gig economy encapsulates. The expression 'gig economy' itself was coined in 2009 by the journalist

TABLE 3 Illustrative definitions of the sharing economy

Definition	Reference
'Of all the possible terms of exchange within a sharing economy, the single term that isn't appropriate is money.... as with any economy, the sharing economy is **built upon exchange**. And as with any exchange that survives over time, it must, on balance, benefit those who remain within that economy.'	Lessig (2008, pp. 78–95)
'People coordinating the **acquisition and distribution of a resource for a fee or other compensation**'	Belk (2014, p. 1597)
'Consumers (or firms) granting each other temporary **access to their under-utilized physical assets** ("idle capacity"), possibly for money.'	Frenken et al. (2015)
'A peer-to-peer based activity of **obtaining, giving, or sharing access to goods and services**, coordinated through community-based online services.'	Hamari et al., (2015, p. 2049)
'First, the new sharing economy is distinguished from previous forms of sharing by its ability to facilitate **sharing between strangers**, rather than among kin or within communities. In contrast to monetized commodity exchange, sharing necessitates at least a modicum of social connection.... Second, practices comprising the sharing economy can be distinguished from previous forms of sharing by **their strong reliance on digital technologies**.... Finally, the contemporary sharing economy can be distinguished from other systems of sharing by the **participation of high cultural capital consumers**. Increasingly, such consumers are electing to share, rather than sharing out of necessity.'	Schor & Fitzmaurice (2015, pp. 16–18)
'The sharing economy is a very **heterogeneous group of online platforms** that contains many new and very innovative economic and social activities that are hard to classify.'	Codagnone & Martens (2016, p. 11)
'The economic system that uses online platforms to **connect workers and sellers with clients and consumers**, primarily through smartphone applications.'	Harris, 2017, (p. 269)
'**A digital platform-enabled governance structure** that aligns large-scale peer-to-peer transactions among economic actors for the episodic usage rights of decentralized private assets, which serve both private consumption and collective productive purposes.'	Bai & Velamuri (2020, p. 3)

Tina Brown (2009), who is the founder and editor-in-chief of digital news site 'The Daily Beast'. The 'gig economy' is usually considered as a tripartite structured market system with digital platforms acting as intermediaries (Duggan et al., 2020; Jabagi et al., 2018; Stewart & Stanford, 2017; Tassinari & Maccarrone, 2020). In coordinating supply and demand, platform providers shift most of the costs, risks and liabilities to the other two parties (Jabagi et al., 2018) through different algorithms that control transactions, such as matching workers and potential clients (Duggan et al., 2020; Harris, 2017; Lepanjuuri et al., 2018; Newlands, 2020; Tassinari & Maccarrone, 2020).

While the expression 'gig economy' is fairly new, the logic on which it is founded clearly is not. For Kalleberg (2009), the gig economy finds its roots in precarious work. The shipping

TABLE 4 Key features of the sharing economy

	Main features
Resources	
Broad understanding	Both intangibles/services and tangibles/goods (Belk, 2010; Newlands et al., 2018; Puschmann & Alt, 2016; Schor & Fitzmaurice, 2015)
Narrow understanding	Temporary access (Frenken & Schor, 2019; Frenken et al., 2015)
	Shareable goods (Benkler, 2004)
	Physical assets (Frenken et al., 2015)
	Nonmonetary (Lessig, 2008)
	For a fee or other compensation (Belk, 2014; Frenken et al., 2015)
Platforms	
Broad understanding	Internet (Belk, 2007; Schor & Fitzmaurice, 2015)
Narrow understanding	Intermediary (Frenken & Schor, 2019; Puschmann & Alt, 2016)
Workers	
Broad understanding	Business or individuals (Puschmann & Alt, 2016)
Narrow understanding	Individuals (Duggan et al., 2020; Frenken et al., 2015; Hamari et al., 2015)
	Independent contractors (Newlands et al., 2018)
Requesters	
Broad understanding	Business or individuals (Frenken et al., 2015; Puschmann & Alt, 2016)
Narrow understanding	Individuals (Frenken et al., 2015; Hamari et al., 2015; Duggan et al., 2020)

industry illustrates this point. As early as the 19th century, the rapid development of the shipping industry caused a large shortage of workers in the docks in the East End of London.

Two-thirds of dockers worked without knowing their schedule in advance owing to the flexibility of the time of entry and exit of ships. With the absence of efficient communication systems, workers had to line up outside the terminal every morning, waiting for job opportunities (Tillett, 1910). This can be seen to be the prototype of gig work (i.e., before the ascent of digital platforms). In the mid to late 1970s, macroeconomic policies began to intensify global price competition, and companies started to reduce labour costs by outsourcing work to low-wage countries. In parallel, the power of trade unions has gradually decreased, and the balance of power has been continuously tilted towards employers (Kalleberg, 2009). With the development of science and technology, the emergence of new types of gig work, with the help of ICT, had thus become inevitable. Comparable with the concepts previously discussed, there are no universally accepted definitions for 'gig economy' (Fleming et al., 2019; Lepanjuuri et al., 2018; Woodcock, 2020); its use is as erratic as the type of work it describes (see Table 5).

Unlike traditional employment relationships, platforms, in the overwhelming majority of cases, do not offer legal employment contracts to platform workers (Duggan et al., 2020). Workers and platforms, as well consumers and platforms, are bound together through digital, ephemeral contracts. These contracts both maximize platforms' control over workers and

TABLE 5 Illustrative definitions of the gig economy

Definition	Reference
'A term that suggests that it is not only normal but **also fun to hop creatively from job to job on an ad hoc basis**.'	Huws et al. (2018, p. 116)
'**One-time jobs** where workers are employed on a particular task or for a defined period of time. A gig worker is not paid a wage or salary; does not have an implicit or explicit contract for a continuing work relationship; and does not have a predictable work schedule or predictable earnings when working.'	Fleming et al. (2019, p. 493)
'The gig-economy is an **emerging labor market wherein organizations engage independent workers for short-term contracts** ("gigs") to create virtual jobs, often by connecting workers to customers via a platform-enabled digital marketplace.'	Jabagi et al. (2019, p. 192)
'The gig economy, in which employees complete short-term, on demand work assignments (i.e., "gigs") across a variety of, is defined by its **utilization of non-standard employees**.'	Schroeder et al. (2019, p. 1)
'A new "gig economy" that enables both menial tasks (e.g. usability testing, image tagging) and complex endeavors (e.g. design, user testing, or consultancy work) to be broken down into **smaller tasks that can be distributed among an external workforce**.'	Connelly et al. (2020, p. 1)
'An economic system that **uses online platforms to digitally connect workers**.'	Duggan et al. (2020, p. 115)
'The notion of a "gig" is freighted with descriptive and normative meaning. It implies not only that **the work is one-off or short-lived**, but that it should also be easy, incidental and, ideally, enjoyable.'	Healy et al. (2020, p. 3)
'Gig work is usually typified by four characteristics**: irregular work schedules**; workers providing some or all capital (e.g. mobile phones, cars, or bikes); **piece-rate work remuneration**; and **work being arranged and/or facilitated by digital platforms**.'	Newlands (2020, p. 721)
'The term "gig economy" refers to the **parcelled nature of the small tasks or jobs** (the "gigs") that individuals are contracted to carry out by companies (often platforms) adopting this **model of service provision**.'	Tassinari and Maccarrone (2020, p. 36)
'**A continuum of online labour from microwork to online freelancing**, including work that is transacted on platforms but delivered locally (e.g. Uber and Task Rabbit), and work that is both transacted and delivered remotely on the platforms (e.g. Upwork and Amazon Mechanical Turk).'	Yao (2020, p. 485)

minimize platforms' responsibilities and obligations when problems arise (Stewart & Stanford, 2017). For instance, Deliveroo riders do not benefit from health cover when they are working; should a problem come up, they would not receive support and might thus rapidly fall into more precarity. Another point of contention is the way in which it isolates workers, as they are neither physically in contact with other workers nor are they the recipients of their own work (Ashford et al., 2018). Gig workers cannot share work experience and learn from each other in a timely manner, which affects their productivity and income (Friedman, 2014). De

Stefano (2015) indicates that the idea of 'human-as-a-service', which amounts to an extreme form of commodification, will be exacerbated in the gig economy because transactions, workers and customers are mostly invisible. Table 6 gives an overview of the main features of the gig economy found in the literature.

TABLE 6 Main features of the gig economy

	Main features
Work	
Broad understanding	Menial tasks and complex endeavours (Connelly et al., 2020)
	Most jobs are compensated on a piecework basis (Stewart & Stanford, 2017)
Narrow understanding	One-off or short-lived, easy, incidental and, ideally enjoyable (Healy et al., 2020).
	For money (Lepanjuuri et al., 2018)
	Labour (Fleming et al., 2019; Jabagi et al., 2018; Lepanjuuri et al., 2018)
	Irregular work schedules (Newlands, 2020)
	Piece-rate work remuneration (Connelly et al., 2020; Newlands, 2020)
	Small tasks or jobs (Fleming et al., 2019; Tassinari & Maccarrone, 2020)
	Short-term contracts (Jabagi et al., 2018, 2019)
	Labour and money are determined by a group of buyers and sellers operating within a price system (Jabagi et al., 2018)
	Labour can be virtual or physical (Jabagi et al., 2018)
Platforms	
Broad understanding	Online (Duggan et al., 2020; Newlands, 2020; Stewart & Stanford, 2017)
Narrow understanding	Intermediary (Duggan et al., 2020; Jabagi et al., 2018; Stewart & Stanford, 2017; Tassinari & Maccarrone, 2020)
	Range and/or facilitate work platform (Newlands, 2020)
Workers	
Broad understanding	Individuals or companies (Lepanjuuri et al., 2018)
Narrow understanding	Non-standard employees (Schroeder et al., 2019)
	Freelancers or one-person businesses (Lepanjuuri et al., 2018)
	Workers providing some or all capital (Stewart & Stanford, 2017; Newlands, 2020); even places of work (Stewart & Stanford, 2017)
	Independent contractors (Bernhardt & Thomason, 2017; Newlands, 2020)
	Individuals (Ashford et al., 2018; Jabagi et al., 2018, 2019; Tassinari & Maccarrone, 2020)
	Irregular work schedules (Stewart & Stanford, 2017)
Requesters	
Broad understanding	Individuals or companies (Lepanjuuri et al., 2018)
Narrow understanding	Organizations (Jabagi et al., 2019)

Platform economy

Gawer (2011) argues that the term ‘platform’ is rooted in engineering design, and was developed by management scholars from the three research waves of products (Wheelwright & Clark, 1992), technological systems (Bresnahan & Greenstein, 1999) and transactions (Rochet & Tirole, 2003), which accounts for the many different framings of the concept of platform. Rochet and Tirole (2003) coined the expression ‘platform economy’ and argued that this new type of economy differed from ‘conventional’ two-sided market economy, inasmuch as it is based on a triangular relationship involving a platform, workers and customers. On that point, as well as on many others, the platform economy strongly resonates with the gig economy. Platforms own an infrastructure made of software, tools, rules and services. The main feature of platforms is the provision of an online interactive community, which facilitates interactions between users. More precisely, platforms use data to match workers and consumers based on demand and supply. Large-scale horizontal networked communications and interactions are the basis upon which the platform economy is built (Peticca-Harris et al., 2020). In this respect, platform economy creates a world of possibilities and prospects, with some believing that it can make a greater social good without negative consequences, even though others feared that new technologies would result in undesirable, and perhaps unintended, effects (Kenney & Zysman, 2016). Platform economy is, in a sense, the most technologically inclined of our four terms, which makes it harder to trace historically. Table 7 provides an overview of common definitions from the literature.

TABLE 7 Illustrative definitions of the platform economy

Definition	Reference
‘Usually refers to **digital media firms** that connect users through two-sided platform-based marketplaces.’	Cockayne (2016, p. 73)
‘A universal characteristic of various definitions is that they place emphasis on individuals rather than organizations as the primary economic actors: the **supply of capital and labor comes from decentralized crowds of individuals** rather than corporate or state aggregates. Another near-universal characteristic is that these **individual participants are organized by digital platforms that match suppliers and demanders** as well as perform various management-type functions, such as quality control’	Lehdonvirta (2018, p. 569)
‘Digital platforms, which are virtual locations through which various users communicate and transact, have become **intermediaries for organizing social and economic life** at both the micro-level in terms of how work is performed and the economic structural level.’	Kenney and Zysman (2019, p. 2)
‘The platform economy is made possible by **new kinds of horizontal, networked exchanges and interactions between users through online communities**. The platform economy is structured around ‘temporary access, non-ownership models of utilizing consumer goods and services [and often rely] on the Internet, and especially Web 2.0 …’	Peticca-Harris et al. (2020, p. 37)
‘The platform economy has experienced rapid growth since then and now encompasses **a wide array of digitally mediated economic transactions involving the exchange of goods and services**.’	Vallas and Schor (2020, p. 274)

Although the term platform originally referred to mediators in the 'real' world (Shapiro, 2020), the 'platform economy' is premised on both the 'algorithm revolution' and cloud computing. Yet, in the platform economy, the platform is not just a new piece of technology, it is also a new business model in its own right. This business model is usually flatter and more participatory than models that are part of the 'traditional' economy (Morozov, 2015). By extension, the platform economy is distinctive because of its ease of participation and registration; anyone can become a supplier of the platform economy. Platform work can be completed through a few clicks (Peticca-Harris et al., 2020). The ease of signing-up, direct participation and the abundance of largely unqualified tasks generate a network effect in platforms, which means that more users will essentially increase the value of platforms (Evans & Gawer, 2016), which can actually be seen as the real innovation of the 'platform economy' (Langley & Leyshon, 2017). This is a point on which the gig economy and the platform economy diverge.

Platforms have emerged as generic ecosystems able to link potential customers to anything and anyone, from private individuals to multinational corporations. The central concept within the industrial relationship—employer control (Maffie, 2020)—is reflected in platforms using algorithms that sort, rank, categorize and display content. Platforms act as multisided markets (Cockayne, 2016) and coordinate net-worked connectivity between customers, individuals and multinational corporations, thus performing the role of socio-technical intermediary (Gillespie, 2010; Langley & Leyshon, 2017; Lehdonvirta et al., 2018) or mediator (Dijck, 2013). Technically, the platform provides software, hardware and services, a place for online social activities through coding, uses algorithms to process user data and provides users with friendly pages so that all participants understand the logic of the platform. In Table 8, an overview of the main features of the platform economy is provided.

TABLE 8 Main features of the platform economy

	Main features
Work	
Narrow understanding	Temporary access (Peticca-Harris et al., 2020)
	Utilizing consumer goods and services (Peticca-Harris et al., 2020)
Platforms	
Broad understanding	Internet (Kenney & Zysman, 2016, 2019; Peticca-Harris et al., 2020)
Narrow understanding	Intermediary (Gillespie, 2010); Langley & Leyshon, 2017); Lehdonvirta, et al., 2018)
	Mediator (Dijck, 2013; Peticca-Harris et al., 2020)
	Two-sided platform-based marketplaces (Cockayne, 2016)
Workers	
Narrow understanding	Individual (Peticca-Harris et al., 2020)
Requesters	
Narrow understanding	Individual (Lehdonvirta, et al., 2018)

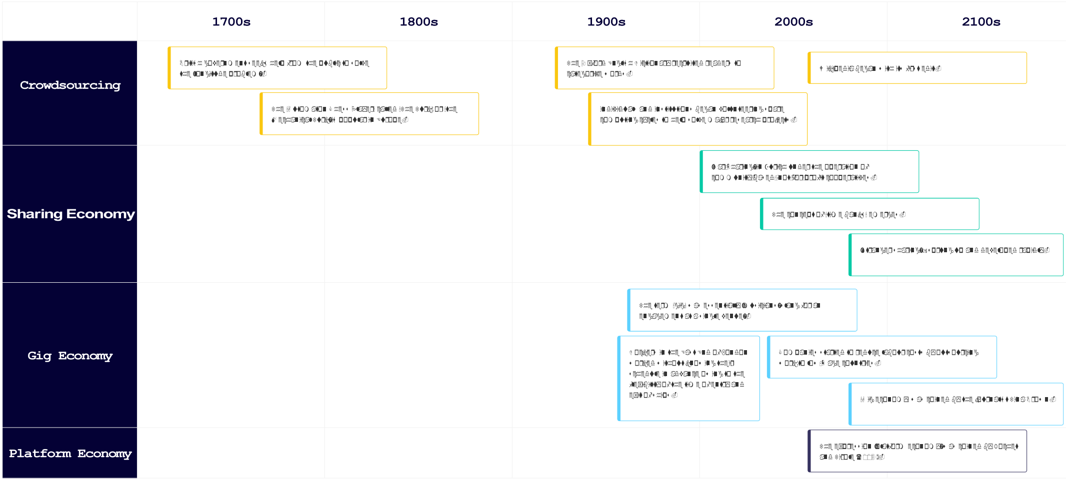

FIGURE 1 Origin of crowdsourcing, sharing economy, gig economy and platform economy [Color figure can be viewed at wileyonlinelibrary.com]

Analogies and distinctions

As we showed, all four terms are embedded in a long history through which technological developments have played a key role in intensifying existing logics and modes of valuation (see Figure 1).

Our characterization of the gig economy, platform economy, sharing economy and crowdsourcing allows us to highlight, in a systematic manner, the differences but also overlaps between these facets of digital capitalism. The 'platform economy' is certainly the most encompassing of all four with regard to newly evolved forms of works and technologies used, thus including platforms that are excluded by the gig economy and sharing economy, such as online retail for instance (Kenney & Zysman, 2016). The digital activities that it covers are not limited to business activities but are increasingly touching on wider political and societal concerns (Kenney & Zysman, 2016). In addition, compared with 'sharing economy' and 'gig economy', the term 'platform economy' is also used in a more neutral manner. This aside, the platform economy and gig economy converge on many different aspects and are the two closest facets of digital capitalism. In terms of types of interactions, we find, in all four, P2P and business-to-costumer (B2C) as well as business-to-person (B2P) interactions. The table below (Table 9) summarizes the main similarities and differences between these four facets of digital capitalism.

IDEOLOGY AND THE DISCOURSE OF NOVELTY

As sociotechnical systems rely on a neoliberal logic to operate, platforms lie at the core of the gig economy, the sharing economy and the platform economy as well as crowdsourcing. Critical views of platforms and their activities have been burgeoning over the past few years. Platforms are notably seen to limit the well-being of workers in the pursuit of profit maximization (Fleming et al., 2019; Langley & Leyshon, 2017), with platforms controlling workers

TABLE 9 An overview of our four concepts

Features	Crowdsourcing	Sharing economy	Gig economy	Platform economy
Working condition				
Independent contractors	X	X	X	X
Microentrepreneurship		X		
Full-time/part-time employees				X
Business model				
Pure reseller		X		
Two-sided market		X	X	X
Interaction type				
P2P	X	X	X	X
B2P/B2C	X	X	X	X
B2B	X	X		
P2B	X			
G2G		X		
Transaction products				
Services	X	X	X	X
Tangible and intangible assets		X		X
Nature	Crowd intelligence	Pure sharing	Online labour outsourcing	Human effort and consumer assets monetized

Abbreviations: B2C, business-to-costumer; B2P, business-to-person; G2G, government-to-government; P2B, peer-to-business; P2P, peer-to-peer.

through elaborate manipulations of data and code (Srnicek, 2017b). Arguably, platform capitalism can then be seen to be an extreme variant of the digital economy (Fleming et al., 2019).

Many platforms have noticeably adopted the language, and pretendingly the values, of the traditional community-based sharing movement and ethos, which promote the socioeconomic and environmental benefits of working with and through platforms, thus producing a form of 'idealist discourse' (Codagnone & Martens, 2016; Schor, 2020), which is very much in line with the new economy narrative (see Thrift, 2001). Advocates of those platforms encourage individuals to imagine platforms as utopias through altruistic slogans that are in line with market logic and the use of open-source activities for hype (Murillo et al., 2017). Yet, these 'socially oriented' platforms are not simply governed by the noble principles they articulate. Rather, as we hinted at previously, they perform and extend existing issues under the guise of novelty. The gig economy, the sharing economy and the platform economy as well as crowdsourcing are all embedded in complex sociohistorical contexts that tend to be overlooked or set aside in discussions pertaining to platform capitalism.

The platform's neoliberalism is not just a set of economic policies; platform participants are forced to become 'homo economicus', and their behaviour is configured by the platform's sophisticated algorithms relying on market rationality (Brown, 2003). The market capacity is limited, and market rationality makes the market competition of the platform increasingly fiercer (Murillo et al., 2017). At the same time, in the digital economy, as the worker pool becomes overcrowded and the supply of workers gradually exceeds the demand, the welfare benefits of workers is further affected (Healy et al., 2017). Equality is then just a utopian fantasy. As network effects produce platform monopoly (Kenney & Zysman, 2016; Langley & Leyshon, 2017; Vallas & Schor, 2020), it is difficult for smaller start-ups to survive in the digital economy. A few workers with high performances on a platform can get an income far higher than the average wage level of the platform, materializing the 'Piketty effect' in the digital economy (Frenken, 2017).

Attending to key historical points related to these manifestations of digital capitalism is critical to exploring the question of novelty that frames, and to a certain extent performs, current work endeavours. The discourse of novelty is increasingly dominant in today's society and has become a kind of 'truth' (Brown, 2015) that attempts to conceal political and power relations. Importantly, the obsession with novelty and associated neophilia is not new per se; almost 20 years ago, Nolan and Wood (2003, p. 165) already noted that 'grand narratives and futurology have foreshadowed the study of contemporary developments in paid and unpaid work'. As De Cock and Rehn (2006, p. 123) suggest, 'the lure of the new' involves the mesmerizing 'deconstruction of the old'. It is thus critical to evaluate the extent to which the phenomena that we are depicting are genuine epochal events (*sensu* du Gay, 2003) or more modest changes discursively constructed to appear as the former (French et al., 2009; Savage, 2009; Thrift & French, 2002).

Hyperbolic and positive qualifiers, such as 'interesting', 'flexible', 'revolutionary', 'groundbreaking' or 'fun', are commonly used to depict the new world of work (Aroles et al., 2020). The use of such a positive terminology seems to ignore, or overlook, core issues plaguing platform capitalism, such as instability or precarity (Montgomery & Baglioni, 2021). All transaction-related activities take place within algorithmic systems. Platforms are regarded as intermediaries, and algorithms firmly control workers' performances. At different levels, platforms (or rather work activities mediated by platforms) seem to replicate a Taylorist (Duggan et al., 2020) or Toyotist logic (Steinberg, 2021) as specific, small and short-term tasks are distributed to workers by the platform, with wages uniformly set and settled. In this sense, platforms act as exploiters, using distinct algorithms to maximize productivity; exploitation did not so much disappear, but rather changed from managerial to algorithmic exploitation (Vallas & Schor, 2020). We thus need to be mindful of the dichotomization between old and new world of work created and enacted through epochalist claims of change and novelty (see du Gay, 2003).

Under the impetus of neophilia, innovation has thus become synonymous with the 'new' economy (Rhodes & Pullen, 2010). This context favours the emergence of a utopian vision of the world fuelled by ICT progress, in which work is flexible and mobile, and classes simply no longer exist (Rhodes & Pullen, 2010). This technological utopian stance finds its roots in the so-called 'California ideology', which posits that technology can make society peaceful and equal (Schor, 2020). Platforms seem to have become the promoters of the digital revolution, through which people can escape from government supervision and realize "market populism" (see Frank, 2001).

CONCLUSION

Platform capitalism is undoubtedly an important topic that requires careful investigation. Its popularity, as a topic of research, has led to much confusion regarding its meaning and contours. In this review paper, we aimed to highlight both the similarities and differences between four manifestations of platform capitalism, namely crowdsourcing, gig economy, sharing economy and platform economy. In addition, through our exploration of these four manifestations, we sought to reflect on some of the myths and fetishisms that surround platform capitalism. As we endeavoured to show, these play out at the ideological level inasmuch as they convey and perform a particular vision of the world of work, one that is inscribed in a broader discourse of novelty and change. Through its emphasis on transformation, innovativeness and opportunity, platform capitalism obfuscates the politics and power relations hidden behind the concepts of crowdsourcing, gig economy, sharing economy and platform economy. The themes of connectivity and exchange, central to platforms, obscure the neoliberalist ideology that runs free at the heart of platform capitalism. The positive, or neutral, stance on those manifestations of platform capitalism seeks to detach them from their past in such a way that they are portrayed as a force for good that can challenge long-established power relations. Attending to and exploring the origin and evolution of these four facets of digital capitalism allow us to unpack the ideology and narratives that underlie them, thus proposing a historically informed and critically inclined reading of these concepts.

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How to cite this article: Liang, Y., Aroles, J. & Brandl, B. (2022) Charting platform capitalism: definitions, concepts and ideologies. *New Technology, Work and Employment*, 1–20. https://doi.org/10.1111/ntwe.12234