



## The feasibility of platform cooperatives in the gig economy

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### ABSTRACT

In view of the precarity and economic dependency of gig workers, platform cooperatives come into the picture as alternatives to investor-owned platforms. We develop a taxonomy of platform cooperatives along the dimensions of ownership of the platform and employment by the cooperative. Platform cooperatives are then examined as worker-run matchmaking platforms for gigs, by analysing their challenges, highlighting the difficulties to raise capital, take collective decisions, and gain institutional support. On the basis of a feasibility analysis, we conclude that the identified challenges can most likely be successfully overcome by platform co-ops that organise taxi rides and professional jobs, while it may prove much more difficult in food delivery, homecare and micro-tasking.

### 1. All talk and no action?

During the last decade, we have witnessed a proliferation of online platforms that match the supply and demand of flexible labour. Such online platforms mediating flexible labour are generally classed under the term “gig economy” (De Stefano, 2015), and are best-known through examples such as Uber (for taxi rides) and Deliveroo (for food delivery). The rise of these platforms created a lot of turmoil in political arenas, whereby unions, workers and digital activists have expressed their critical views of gig economy platforms as they exercise control over workers without employing them, use algorithms and reviews to assign gigs to workers or rank gigs to clients. Gig workers employed through such platforms are left in a precarious position regarding their wages and income security, while also at risk of discrimination (Schor, 2020).

In the face of political passivity regarding the protection of gig workers, stakeholders increasingly consider platform cooperatives as a solution to the precarity and economic dependence of gig workers (Bunders, 2021; Johnston & Land-Kazlauskas, 2018; Schor, 2020). The idea of ‘platform cooperatives’ (hereafter: platform co-ops), first introduced in the United States (Schneider, 2014; Scholz, 2014; Schor, 2014), resonated strongly with research critical of the platform economy (Acquier, Daudigeos, & Pinkse, 2017; Gruszka, 2017). Platform co-ops combine the online infrastructure of a platform to mediate social and economic interaction (Kenney & Zysman, 2016) with the collective ownership and democratic governance of a cooperative enterprise (Zamagni, 2012). While applicable to all kinds of platforms, these

platform co-ops have been most strongly advocated for as an alternative to investor-owned ‘gig platforms’ like Uber and Deliveroo (Scholz, 2016). As owners of a platform co-op, gig workers can create the conditions for better pay and job security because they decide themselves over commission rates and surplus value. Legal issues concerning their self-employed status could be solved as well because, in principle, gig workers can either continue to do their work as self-employed (in a producer cooperative) or as employee (in a worker cooperative), depending on the form of cooperative that is chosen. Either way, the issues that arose in the regular platform economy about employment conditions would be in the hands of the members of the platform co-op.

The wide support for the idea of platform co-ops begs the question why we see so few of them. There exist some promising examples (collected in directories of *The Internet of Ownership*, 2016 and *Platform Cooperativism Consortium*, 2021), but the number of platform co-ops remains very small and many are not operational yet. This observation resembles those made by economists over sixty years on the rarity of labour-managed firms (Dow, 2018). Explaining their rarity is not only interesting as an academic puzzle, but has serious implications if we want to consider platform co-ops as serious alternatives to investor-owned gig platforms.

The question we pose in this article, is whether the emergent platform co-ops can be a feasible alternative to investor-owned platforms currently operating in the gig economy. We will answer this question mainly theoretically rather than empirically given the very limited number of platform co-ops that are, or have been, operational so far. Our

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goal is not to demotivate the imagination of cooperative entrepreneurs, but rather to theorise about cooperatives in the specific context of the gig economy and to raise awareness for specific challenges that platform co-ops are likely to face in specific sectors. The next section discusses the potential of platform co-ops for the gig economy. Section three evaluates whether classic explanations for the rarity of labour-managed firms also apply to the gig economy concept. We then develop a feasibility analysis from which (un)favourable conditions for platform co-ops can be derived. Throughout the article, our frame of reference is the context of Europe and North-America.

## 2. Types of platform co-ops

Cooperatives date back to at least the 19th century and can be defined as “an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise” (International Co-operative Alliance, 1995). Online platforms, on the other hand, are much more recent, and no agreed-upon definition exists at the moment. For example, the European Commission’s working definition was seen as too broad during a public consultation among a wide variety of stakeholders (Gawer, 2020). The definition suffices, however, for understanding platforms in the context of this study: “An undertaking operating in two (or multi)-sided markets, which uses the Internet to enable interactions between two or more distinct but interdependent groups of users so as to generate value for at least one of the groups” (European Commission, 2015: 5).

Platform co-ops must be distinguished from other types of institutions for collective action (Ostrom, 1990) in the platform economy, such as efforts to unionise gig workers and online forums of gig workers (Johnston & Land-Kazlauskas, 2018; Vandaele, 2018). These are more strictly focused on bilateral negotiation with investor-owned platforms (e.g. grass-roots unions, union-affiliated guilds) or the pooling of knowledge about platforms and clients (i.e. online forums). And, while unions are generally supportive towards platform co-ops (Bauwens & Niaros, 2017), the platform co-op movement is organised quite separately from traditional labour unions. Similarly, existing associations of cooperatives in Europe are also supportive of the idea of platform co-ops, but they have also expressed some doubt whether platform co-ops can develop a value proposition that is both competitive and sustainable in practice (Como, Mathis, Tognetti, & Rapisardi, 2016).

Cooperatives may emerge in all parts of the digital economy, such as data cooperatives in which data subjects store and manage their data (Scholz & Calzada, 2021), but equally so they have gained importance as a way to facilitate the sharing of physical goods, such as car-sharing. It is noteworthy that cooperative carsharing-platforms are shown to be quite successful in the German and Swiss context (Münzel, Boon, Frenken, & Vaskelainen, 2018). This particular movement, builds on consumers who co-invest in cars that can then be rented in the neighbourhood. In the discussion addressed here, however, platform co-ops appear primarily as a solution to the labour conditions and earnings of gig workers (Schor, 2020) and non-standard employment more broadly (Eum, 2019). We use the term gig work here to refer to paid short-term service jobs, and will further specify the dimensions of platform intermediation and employment status below (Koutsimpogiorgos, Van Slageren, Herrmann, & Frenken, 2020). Two problems stand out in debates on the gig economy: precarity and economic dependency. Precarity implies an externalisation of risks onto self-employed workers (Drahokoupil & Piasna, 2017), while economic dependency refers to the control that platform firms maintain over these workers through algorithmic management and their access to consumers (Schor, 2020). Given these problems, the cooperative model can then be made relevant to the gig economy in four different ways (see Table 1).

The first row of the matrix includes cooperatives where gig workers continue to find jobs via an investor-owned platform or via their personal channels, but gain something else through their membership.

**Table 1**  
Cooperative types by platform ownership and member employment status.

	Members are self-employed	Members are employed
<b>Cooperative does not own platform</b>	Producer cooperative that does not provide gig workers with labour rights, and does not own a matchmaking platform (e.g. <a href="https://decooperatie.org/">https://decooperatie.org/</a> )	Worker cooperative that does provide gig workers with labour rights, but does not own a matchmaking platform (e.g. <a href="https://smartbe.be/">https://smartbe.be/</a> )
<b>Cooperative owns platform</b>	Producer cooperative that does not provide gig workers with labour rights, but does own a matchmaking platform (e.g. <a href="https://taxiapp.uk.com/">https://taxiapp.uk.com/</a> )	Worker cooperative that does provide gig workers with labour rights, and does own a matchmaking platform (e.g. <a href="https://www.upandgo.coop/">https://www.upandgo.coop/</a> )

These are not platform co-ops in the narrow sense, but they are closely related. A minimal version is that of gig workers who remain self-employed while also becoming a member of the cooperative to gain access to shared services like co-working spaces, financial advice or insurance. The Dutch producer cooperative of freelance journalists called “De Coöperatie” is an example of this model. In a more extensive variant, gig workers actually become employed by the cooperative to gain labour rights, but without being subjugated and effectively still working as freelancers who get their assignments via an investor-owned platform or via personal channels, also known as quasi-self-employment with functional equivalents to the protections in standard employment (Lorquet, Oriane, & Pichault, 2018). This model has been pioneered by the Belgian worker cooperative Smart, initially intended for artists, but later opened up to all gig workers. As such, Smart allowed at some point for example Deliveroo-riders to join the cooperative as worker-members. While addressing the problem of precarity, these models may be unfit to resolve economic dependency on investor-owned platforms, as illustrated by Deliveroo pulling out of the agreement with Smart after only 18 months (Drahokoupil & Piasna, 2019).

The second row of the matrix consists of cooperatives that own a platform where gig workers can find jobs. These are considered as true platform co-ops, and correspond to the category of platform co-ops that manage labour exchange as identified by Calzada (2020). By setting up a platform themselves, gig workers are no longer dependent on unilateral decisions that can conflict with their interests (Schneider, 2018), such as increases in commission rate, selling of personal data, digital surveillance, or being denied access without the possibility to appeal. Instead, members of a platform co-op can democratically determine (according to a one member-one vote principle) the amount of commission they pay as well as provisions concerning the algorithm, privacy, and access. Again, in a minimal version, gig workers would remain self-employed, but benefit from their cooperative membership in terms of lower commission rates and a say in the algorithms’ workings. This model can be illustrated by Taxiapp, a producer cooperative of black cab taxi drivers in London. While addressing the problem of economic dependency, precarity is left unresolved as most risks are still carried individually. In work settings where precarity is less of a problem, this may of course be well acceptable. The final and only variant that addresses both precarity and economic dependency is one where gig workers are employed by the cooperative and function as one single economic unit with fixed prices and instructions through their own platform. An example of this model is the worker cooperative for home cleaners called “Up&Go” in New York, United States. The present study focuses exclusively on these two latter categories. Thus, in the remainder of our study, the term platform co-op strictly refers to worker or producer cooperatives that own a matchmaking platform for gigs.

## 3. Why labour-managed firms are so rare

Platform co-ops, in the form of worker-run matchmaking platforms

for gigs, are a subset of labour-managed firms. The observation that platform co-ops are rare relative to investor-owned platforms mirrors the comparisons made between the prevalence of labour-managed firms and capital-managed firms in general (Dow, 2018). A standard explanation of the low presence of labour-managed firms goes back to Ward (1958) and Domar (1966), who theorised that such firms suffer from a 'perverse supply response'. This is based on the assumption that as profit increases, labour-managed firms would restrict the number of jobs to increase the income among fewer workers – leading to inefficiencies compared to capital-managed firms. Another early explanation was the horizon problem (Vanek, 1977). Here the argument is that labour-managed firms would underinvest because workers who expect to leave the firm are unwilling to sacrifice income when a return on investment comes only after their departure – leading to comparatively superior innovation in capital-managed firms. A third set of explanations focuses on inferior work incentives in labour-managed firms relative to capital-managed firms (Alchian & Demsetz, 1972). The argument holds that shirking behaviour in teamwork would only be avoidable by a central monitor who rewards workers based on individual productivity, while shirking behaviour by the central monitor needs to be avoided by making this person claim the difference between revenue and costs – resulting in a capital-managed firm.

Nevertheless, a first wave of empirical studies rejected the early explanations above (for an overview, see Bonin, Jones, & Putterman, 1993). And, more recent studies also show that, compared to capital-managed firms in the same industries, labour-managed firms prioritise employment levels over simply maximising individual member income, do not under-invest in the production process, and are both more productive and survive longer (for an overview, see Pérotin, 2013). Now, theorising has shifted its focus to problems of formation rather than survival as well as to contexts that are (un)conducive to labour-managed firms.

One direction that explanations for the rarity of labour-managed firms has taken is the 'capital conundrum', which points out that even if labour-managed firms would be more efficient than capital-managed firms, workers fail to finance them out of their own pockets or through external capital because they are too poor and risk averse (Bowles & Gintis, 1990). This burden is even higher when the asset specificity of physical capital is greater than that of human capital (Dow & Putterman, 2000). Empirical studies generally support this explanation, showing that capital requirements inhibit labour-managed firm creation (Monteiro & Stewart, 2015; Podivinsky & Stewart, 2012).

Others maintain that capital-managed firms are still more efficient than labour-managed firms, but with regard to transaction costs instead of productivity (Williamson, 1980). A major explanation for the rarity of labour-managed firms derived from this is the problem of collective choice (Hansmann, 1996). Assuming that preferences of workers with regard to wages and working conditions are more heterogeneous than those of investors who simply prioritise profit, labour-managed firms would either fail to deliver a coherent set of instructions to managers and the board or suffer from high transaction costs involved with democratic deliberation and bargaining. There is at least some empirical support for this explanation, showing that worker heterogeneity is an obstacle to labour-managed firm formation (Belloc, 2017).

Another explanation is that the viability of labour-managed firms depends on the institutional environment, which means they are established when the benefits of labour-managed relative to capital-managed firms outweigh the costs (Ben-Ner, 1988). If these costs exceed the benefits in a particular context due to its economic, political or social conditions, we will likely observe a lack of labour-managed firm supply. Reversely, demand for labour-managed firms evolves when workers' needs are left unsatisfied by the private and public sector (Moulaert & Ailenei, 2005). Empirical findings show that labour-managed firms are indeed more prevalent, but also obtain greater support by states and unions, where and when capital-managed firms are more contested or market failures exist (Cornforth & Thomas,

1994; Jensen, 2013).

For the purposes of the present study, the analogous question to ask holds why platform co-ops are so rare. Given the scarcity of empirical research on platform co-ops, it is no straightforward task to evaluate the relevance of these explanations in the gig economy context. We deem three explanations as theoretically relevant to platform co-ops. First, even though the gig economy is predominantly labour intensive, the capital conundrum also holds for the formation of platform co-ops (Belloc, 2019). Supply of investment capital is likely lacking when low-income gig workers are the main, or otherwise the initial, suppliers. One set of costs is the platform infrastructure itself, its maintenance, and further innovation (Lampinen, McGregor, Comber, & Brown, 2018). Another is related to starting a cooperative enterprise (Borkin, 2019). Second, despite the fact that digital tools may lower transaction costs by facilitating preference aggregation in large and heterogeneous groups (Belloc, 2019), there is at least some evidence that collective choice problems persist in platform co-ops (Martin, Upham, & Klapper, 2017). Even when day-to-day operational decisions are left to an elected board or management, relatively slow democratic deliberation over strategic and tactical decisions may inflict significant costs on the platform co-op. Generally, it can be expected that the more socioeconomically and geographically diverse a group of gig workers are, the more difficult it will be to organise as a platform co-op (Lehdonvirta, 2016). And third, while the platform economy transcends national borders and specific industries, it is still very much shaped by differences in institutional context (Thelen, 2018). Previous research already shows that platform co-ops are susceptible to regulatory obstacles and support structures (Pentzien, 2020).

#### 4. Feasibility analysis

From a theoretical point of view, the main challenges to set up platform co-ops lie in raising capital, organising collective decision-making among heterogeneous workers, and finding a favourable institutional environment. This would imply that platform co-ops are expected to be most feasible where capital requirements and worker heterogeneity are low, and institutional support is high. Feasibility is understood here as a relative concept: how easy or hard it is to start up and make a business operational. We therefore do not look at scale or turnover, nor at the mere existence of platform co-ops, but at the relative numbers of operational versus failed platform co-ops per sector. In particular, we look at seven such sectors in which private matchmaking platforms are particularly active: taxi, delivery, professional jobs, odd jobs, cleaning, homecare, and online micro-tasks. To perform a feasibility analysis, it is useful to further unpack capital requirements and worker heterogeneity, and also the institutional support that platform co-ops may receive based on the gig economy literature.

##### 4.1. Capital

Regarding capital requirements, we can distinguish between the need to raise capital to build the platform and the costs of the cooperative enterprise itself. The prime or at least initial source of capital are the workers who have to chip in as owners of the platform. The income they make from their work can thus be considered to be a factor. If workers make a good income, as it is the case for most professionals (e.g., software designers, consultants, artists) and specialised odd job workers (e.g. carpenters, plumbers, electricians), then it is more likely that participants can raise the capital required. Their hourly rate is generally well above minimum wage, reflecting the specialised knowledge and skills required for such jobs. In most sectors, however, gig workers earn a low income, and in some cases, below minimum wage (Florisson & Mandl, 2018; Pesole, Urzi Brancati, Fernández-Macías, Biagi, & González Vázquez, 2018). Hence, in sectors where workers earn a **low income**, the challenge to raise capital is accordingly higher.

Another factor that can come into play is whether we deal with a

**start-up** cooperative or an already existing cooperative that transforms itself into a platform co-op. In the taxi service, delivery, cleaning and homecare sectors, for example, many cooperatives are already active (Borowiak, 2019; Burks, Carpenter, & Goette, 2009; Majee & Hoyt, 2009; Marshall, 2003). If they would develop a matchmaking platform to assign gigs to their members, they become platform co-ops following our definition. For such cooperatives, the capital requirements are lower and available investment capital is higher than for start-ups, as the sole costs concern the development of software and previously generated profits can be reinvested. For a start-up, by contrast, the costs of establishing a platform co-op also entails the recruitment of workers and clients, as well as the setting up of the organisation (legal costs, deliberation costs). Hence, in sectors where cooperatives are already active, the platform co-op model may turn out to be more feasible as existing cooperatives can relatively easily transform themselves into platform co-ops (Como et al., 2016). Reversely, in sectors where platform co-ops have to be established as start-ups, the platform co-op model will generally be less feasible.<sup>1</sup>

A final aspect that affects the capital requirements of setting up a platform co-op is related to technology. Overall, the software to run a platform is becoming cheaper, and, in some cases, is freely available as an open source solution.<sup>2</sup> Such software allows a cooperative to list its members' profiles and availability in a searchable database, allowing clients to contact them for an appointment. Other modules, such as data storage and payment, can be further purchased as a service via plug-ins. However, platforms that organise a more sophisticated matchmaking process, will require more **complex** technology. In particular, time-critical transportation services like taxi and food delivery require complex software to make immediate matches between supply and demand (Duggan, Sherman, Carbery, & McDonnell, 2020). For such services, the underlying algorithms need to be fast and accurate, and should be based on location data of worker and client to minimise waiting time. In food delivery service, a further complicating feature holds that every order involves four parties (client, worker, restaurant, platform) instead of the usual three parties (client, worker, platform). Concluding, one may expect that platform co-ops are more feasible in sectors that require relatively simple matching logic, while setting up a platform co-op in sectors with higher technological complexity may prove more challenging (Lampinen et al., 2018).

#### 4.2. Heterogeneity

A robust finding from empirical reports on the gig economy holds that gig workers vary widely in the number of **hours** they work via a platform (for an extensive review, see Florisson & Mandl, 2018). While some only do gigs occasionally to supplement a main source of income, others do it as a regular part-time job next to study or another job. Only in some sectors, notably taxi and professional jobs (Florisson & Mandl, 2018), there are many full-time gig workers. In this light, it would be too simple to argue that all gig workers are precarious, even if they work for the same platform. Instead, as found by Schor, Attwood-Charles, Cansoy, Ladegaard, and Wengronowitz (2020), those who do gigs occasionally generally value platform work highly, stressing its flexibility and the autonomy to choose when to work and what gigs to accept. What is more, many do such gigs next to a job as an employee, thus benefitting from the social security provided via their regular job. By contrast, those who earn a full income via a platform experience dependency and precarity. They may have to accept more gigs, even if low paid or in remote

<sup>1</sup> Transforming an existing cooperative into a platform co-op might come with its own challenges, such as entrenched resistance to innovation and organisational change. Yet generally speaking we assume that these do not outweigh the disadvantages for platform co-op start-ups in terms of the capital conundrum.

<sup>2</sup> <https://www.sharetribe.com/>.

locations. Given the heterogeneity among workers in terms of the hours worked via a platform, the experiences and needs of gig workers vary widely (Schor et al., 2020). For example, those who rely on the platform for their main income, may wish more job security and social contact compared to those who rarely do gigs for a platform. Generally speaking, gig workers will have more similar interests if their hours and total earnings are more similar (Höhl & Kühn, 2018; Schor et al., 2020). One can expect that workers who work fulltime for a platform have a much larger interest than part-time earners to develop and co-own an alternative platform based on the principles of a cooperative. Platform co-ops with experienced members who commit themselves full-time and for longer periods may gain a competitive advantage over capitalistic platforms. Platform co-ops can also gain a competitive edge by investing in training, whereas the self-employed nature of capitalistic platforms gives them less legal leeway. Concluding, one may expect that platform co-ops will generally be more feasible in sectors where gig workers gain their main income through a single platform.

A second source of heterogeneity is geographical. Most gig platforms operate in local markets, with gig workers and users living in the same or neighbouring municipality. In local markets, it is relatively easy for a platform co-op to enter the market, as the establishment of such a cooperative depends on mobilising gig workers in one local context. For a cooperative to start up, it only needs to recruit locally as to have sufficient supply (and demand) on the platform. More specifically, gig workers can be recruited within local networks through targeted communication pointing out the advantages of a platform co-op. In contrast, the market for online gig services will span a much larger geographical area, and in some cases even **global** (Lehdonvirta, 2016). Hence, it will be more difficult for a platform co-op to successfully set up a platform that can effectively organise and align the interests of gig workers. One reason is related to the variance in real wages among workers executing the same gigs, as the price paid for a particular gig represents very different real wages in different countries. In this respect, workers from low-wage countries may have less incentives to organize into a cooperative as they may experience their earnings as quite high. By contrast, workers from high-wage countries may see their earnings drop due to increased competition from fellow workers in low-wage countries (Berg, Furrer, Harmon, Rani, & Silberman, 2018). A second reason may be that legal, language and cultural differences across countries may render collective decision-making much harder compared to locally operating platforms. And, practically, occasional face-to-face meetings among members of a cooperative are very costly, while online meetings may suffer from time-zone differences. All in all, as workers on online gig platforms are so heterogeneous, it may be difficult to establish a global platform co-op.

#### 4.3. Institutional support

Online gig platforms have also met a lot of criticisms of unions and other stakeholders. Most resistance against the platform economy is directed at a number of taxi and food delivery platforms, in particular Uber and Deliveroo (Cant, 2020; Schor, 2020; Thelen, 2018). It is mainly the controversial practices of these companies, like dynamic pricing, algorithmic matching, sudden raises in commissions and deactivating workers arbitrarily, that attract protests, lawsuits, union actions, and attempts at regulatory reform. It is often in response to these practices that stakeholders consider to set-up platform co-ops and are willing to support them financially or politically (Pentzien, 2020). Hence, support for platform co-ops will likely be greatest in contexts where investor-owned platforms are most contested and smallest where investor-owned platforms are still relatively undisputed and considered legitimate.

#### 4.4. Analysis

Table 2 presents our feasibility analysis. The feasibility aspects are

**Table 2**  
Sectoral analysis.

	CAPITAL			HETEROGENEITY		SUPPORT	STATUS	LOCATION	
	Low income	Start-up	Complex	Hours	Global	Undisputed		Origin	URL
<b>Taxi</b>									
Alberta Co-op Taxi	X		X				Active	Canada	<a href="https://co-optaxi.com/">https://co-optaxi.com/</a>
Alpha Taxis	X		X				Active	France	<a href="https://alphataxis.fr">https://alphataxis.fr</a>
Cotabo	X		X				Active	Italy	<a href="https://www.cotabo.it/">https://www.cotabo.it/</a>
Co-op Cabs	X		X				Active	Canada	<a href="https://co-opcabs.com/">https://co-opcabs.com/</a>
DRIVE Taxis Cardiff	X	X	X				Active	UK	<a href="https://www.drivetaxis.wales/">https://www.drivetaxis.wales/</a>
Eva	X	X	X				Active	Canada	<a href="https://eva.coop/">https://eva.coop/</a>
Faircab	X	X	X				Failed	UK	n.a.
Green Taxi Cooperative	X	X	X				Active	USA	<a href="https://greentaxico-op.com/">https://greentaxico-op.com/</a>
People's Ride	X	X	X				Failed	USA	n.a.
Taxiapp UK	X	X	X				Active	UK	<a href="https://taxiapp.uk.com/">https://taxiapp.uk.com/</a>
The Drivers Cooperative	X	X	X				Active	USA	<a href="https://www.drivers.coop/">https://www.drivers.coop/</a>
Yamuv	X	X	X				Failed	UK	n.a.
Yellow Cab Cooperative	X		X				Active	USA	<a href="https://yellowcabsf.com/">https://yellowcabsf.com/</a>
<b>Delivery</b>									
Applicolis	X		X	X			Active	France	<a href="https://www.applicolis.com/">https://www.applicolis.com/</a>
Blockfood	X	X	X	X			Failed	France	n.a.
CoopCycle	X		X	X			Active	France	<a href="https://coopcycle.org/en/">https://coopcycle.org/en/</a>
Foodfairies	X	X	X	X			Failed	Germany	<a href="https://foodfairies.de/">https://foodfairies.de/</a>
Radish	X	X	X	X			Active	Canada	<a href="https://radish.coop/">https://radish.coop/</a>
<b>Professional jobs</b>									
Covivi		X				X	Failed	USA	<a href="https://pittsburgh.covivi.us/">https://pittsburgh.covivi.us/</a>
Lilith						X	Active	Finland	<a href="https://www.lilith.fi/">https://www.lilith.fi/</a>
Doc Servizi						X	Active	Italy	<a href="https://docservizi.retedoc.net/">https://docservizi.retedoc.net/</a>
The Interpreting Collective		X				X	Active	UK	<a href="https://interpretingcollective.co.uk/">https://interpretingcollective.co.uk/</a>
Signalise		X				X	Active	UK	<a href="https://signalise.coop/">https://signalise.coop/</a>
Tribe Works		X				X	Active	USA	<a href="https://www.tribeworks.io/">https://www.tribeworks.io/</a>
<b>Odd jobs</b>									
Core Staffing Cooperative		X		X		X	Active	USA	<a href="https://www.corestaffing.us/">https://www.corestaffing.us/</a>
Loconomics		X		X		X	Failed	USA	n.a.
Pwiic		X		X		X	Active	Belgium	<a href="https://pwiic.com/">https://pwiic.com/</a>
<b>Cleaning</b>									
Up&Go	X			X		X	Active	USA	<a href="https://www.upandgo.coop/">https://www.upandgo.coop/</a>
<b>Healthcare</b>									
Equal Care Co-op	X	X		X		X	Active	UK	<a href="https://www.equalcare.coop/">https://www.equalcare.coop/</a>
Savvy	X	X		X		X	Active	USA	<a href="https://www.savvy.coop/">https://www.savvy.coop/</a>
<b>Micro-tasking</b>									
Daemo	X	X		X	X	X	Failed	USA	n.a.

taken from the theoretical discussion of the challenges that platform co-ops need to overcome. Raising capital will be harder if workers earn lower income, if the cooperative needs to be started from scratch as a start-up, and if large sums of investment are needed for complex algorithms. Platform co-ops are also considered more difficult to run if gig workers are heterogeneous in terms of the hours they work via the platform and the places in which they are located. Finally, platform co-ops will have less chance to succeed in institutional contexts where investor-owned platforms are undisputed.

The platform co-ops included in this analysis are based on our specification as worker-run matchmaking platforms for gigs and are taken from two directories ([Platform Cooperativism Consortium, 2021](#); [The Internet of Ownership, 2016](#))<sup>3</sup> supplemented by five cases via manual search. The directories most likely do not list all platform co-ops and especially lack information on the Global South, which is why we focus the analysis exclusively on Europe and North-America. Additional information on the platform co-ops is drawn from their websites and blog posts or news articles about them. In the table, we indicate for each of the platform co-ops which obstacles can be expected stemming from difficulties (indicated by X) related to raising capital, managing heterogeneity in decision-making, and finding a favourable institutional environment. Only for start-up status we used the empirical information from each platform co-op's website, all other obstacles were identified

<sup>3</sup> We based our case selection on both databases, precisely because we also wanted to find "failed" and "deactivated" cases which are more likely to be included in the older / less maintained directory of The Internet of Ownership.

on a sectoral level based on the above literature review. We also list the development status of platform co-ops as active or failed based on the availability of their website/app.

From our analysis, we can conclude that obstacles are most easily overcome for platform co-ops organising taxi rides and professional jobs, facing only two out of the six challenges. The highest number of (active) cases for these two sectors also indicates the viability of platform co-ops in those sectoral contexts. Next to that, we find that successful cases in other sectors have found solutions or ways to bypass the obstacles they face.

Regarding taxi platforms, gig workers work fulltime and in the same region, rendering the labour force quite homogeneous facilitating its organisation and collective decision-making. The current investor-owned taxi platforms like Uber and Lyft are highly disputed, which makes it easier to find supports and achieve legitimacy with regulators and the wider public. What is more, cooperatives are already active in the taxi sector, which may find it easier to transform themselves into platform co-ops. Indeed, the three failed cases of taxi platform co-ops were all start-ups, which shows that converting from existing cooperatives is a more feasible strategy in the taxi sector. Raising capital can nevertheless be challenging in the taxi sector, because of low income among its members and the more complex technology required to match drivers and clients geographically and in real time.

Professionals also face few obstacles in operating a platform co-op. Indeed, we find quite a number of examples, all with an active status except one. The membership sizes of Doc Servizi (6000 +) and Lilith (400 +) indicate that that they face little problem to scale. These cooperatives started in the late 1990 s and have more recently developed

their own platform. Workers are quite homogeneous with most working fulltime and in a local area, alleviating governance challenges. Furthermore, raising capital is less of a challenge for professionals as most earn decent incomes and the platform technology can be rather simple to be effective in matching. However, as few cooperatives are already active in this sector, the main challenge may lie in building a cooperative from scratch and without examples. And, finding institutional support might be less obvious for freelancers who are not necessarily in a precarious or economically dependent position.

Platform co-ops for odd jobs and cleaning benefit from requiring only simple platform technology and the local character of their activities. Yet, they face other hurdles to form a platform co-op. Platform co-ops in the odd jobs sector are mostly start-ups and the cleaning sector is a relatively low income sector, creating specific capital obstacles. Both are impeded by heterogeneity in hours and the need to find institutional support. Consistent with this analysis, we only found a few examples of platform co-ops in these sectors. Among the examples of active platform co-ops, the Core Staffing Cooperative is a particularly interesting case as it did manage to attract institutional support, not because similar investor-owned platforms are contested as in the taxi and delivery sectors, but because their membership consists of previously incarcerated individuals. Pwiic is also noteworthy as it was founded as a start-up, but could grow by creating special groups on their platform for members of existing cooperatives like the case of Smart we discussed before. And Up&Go benefitted greatly from a collaboration between existing cleaners' cooperatives and supporting organisations. Next to that, many of the cleaners in Up&Go are women with a migration background, making them a more homogenous community in other aspects than on the basis of working hours.

From our analysis, we can foresee the biggest challenges for platform co-ops in the delivery, homecare and micro-tasking sectors. These contexts pose multiple challenges that need to be overcome at the same time. Workers tend to be heterogeneous in the number of hours they work for a platform -often considering their income from the indicated jobs as extra- and may thus have varying incentives and interests to join a cooperative and to participate in collective decision-making. What is more, the low pay of such jobs and the scarcity of cooperatives that may set an example will make it difficult to raise sufficient capital to start up as a platform co-op. Two remarkable exceptions in this regard are Applicolis and CoopCycle, which were able to connect many small existing cooperatives of bicycle messengers in France. What is more, a food delivery platform co-op such as Radish was able to bypass part of the capital conundrum by including restaurants as a member class, effectively becoming a multi-stakeholder cooperative. The same strategy of including multiple stakeholders was used by Equal Care Co-op and Savvy in the healthcare sector.

Micro-tasking is a specific type of sector in our analysis as it is the only sector where gig labour is sourced globally. The organisation of gig workers across countries will be particularly challenging as they will have to organize online and across national borders. Such platforms also differ in the hours worked and, as labour is sourced from many different countries, also in terms of the real wages earned per hour. Hence, the incentives to join a cooperative are not aligned. The only case observed in this sector, Daemo, has failed already.

## 5. Conclusion

At a time when the current gig economy platforms are claimed to be responsible for the exploitation of precarious groups of workers, the platform co-op has emerged as an attractive alternative model. The costs of operating a cooperative, from a technical point of view, are reduced by internet technologies that ease communication over long distances and with large numbers of people (Lupia & Sin, 2003). Platforms can also start relatively asset-light, which reduces the public good problem of upfront costs for workers that need to be pooled together (Norbutas & Corten, 2018; Stanford, 2017). And, regarding the governance of

platform co-ops, digital tools can support for more direct member involvement as well as simple voting schemes (Como et al., 2016; Mannan, 2018).

However, as theorised in this paper, the challenges of raising capital, organising collective decision-making among heterogeneous workers, and finding institutional support can persist even for platform co-ops. In fact, the investor-owned platforms have deeper pockets, are better able to deal with social and geographic heterogeneity of gig workers by relying on advanced contracting and nudging algorithms, and are not seen as equally problematic in each sector (Lehdonvirta, 2016; Schor et al., 2020). From our analysis, we conclude that, at present, platform co-ops may be particularly feasible for taxi drivers and for professionals, while the platform co-op model looks much more challenging in other sectoral contexts. That does not mean, however, that running a platform co-op in those sectors is per definition impossible. We do find, however, that the few platform co-ops that do remain operational in these sectors are particularly resourceful helping them to bypass the obstacles they face.

It is clear that the gig economy is quickly developing. The current wave of capitalistic platforms is mostly driven by venture capital as to grow their market share by offering services under cost of sales. Virtually all players on the market are still in deficit (White, 2019). The ability of investor-owned platforms to leverage vast amounts of resources against the currently still embryonic platform co-ops provides an additional challenge for platform co-ops in the gig economy. In particular, when it comes to start-up investments, it is more difficult to found platform co-ops than their investor-owned counterparts. Having said this, the long-run viability of for-profit platforms has also been questioned, given that many struggle to make substantial profits (Schor, 2020). Moreover, regulations against precarity and economic dependence in the gig economy are currently in development at multiple levels of government (European Commission, 2021; Koutsimpogiorgos et al., 2020). Previous research shows how public policies may support or restrain cooperatively-owned versus investor-owned firms in general (Spicer, 2021), and more attention for platform co-ops can be expected from policymakers in the field of gig economy specifically (Pentzien, 2020). While it remains an open question whether this is the right moment for workers to take the (financial) risk to start a platform co-op, the increasing public support and the availability of platform software will anyway raise the viability of platform co-ops in the years to come.

## CRedit authorship contribution statement

**Damion Bunders:** Conceptualization, Methodology, Investigation, Writing – original draft. **Martijn Arets:** Conceptualization, Writing – original draft. **Koen Frenken:** Conceptualization, Writing – review & editing, Funding acquisition. **Tine De Moor:** Conceptualization, Writing – review & editing, Funding acquisition.

## Declaration of interest

None.

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