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**GOVERNING SHARING PLATFORMS COOPERATIVELY:
ESSAYS IN THE PERSPECTIVE OF SOCIAL CONTRACT THEORY
AND THE CAPABILITY APPROACH**

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ABSTRACT ITALIANO

Il presente elaborato intende contribuire, sotto forma di una collezione di quattro articoli tematici, ad una delle principali questioni che caratterizzano l'attuale discorso sulla sostenibilità: come porre rimedio agli aspetti più negativi del cosiddetto "capitalismo di piattaforma" al fine di rendere possibile una transizione digitale inclusiva, democratica e giusta per un ampio gruppo di *stakeholders*. In particolare, l'elaborato analizza la recente proposta delle cooperative di piattaforma, vale a dire piattaforme governate democraticamente e possedute collettivamente dagli stessi lavoratori e utenti. Più specificamente, l'elaborato si concentra sulle dimensioni etiche ed economiche del "cooperativismo di piattaforma", con l'obiettivo di dimostrare come il modello organizzativo cooperativo per le piattaforme digitali sia più giustificabile da un punto di vista normativo e anche economicamente più efficiente in determinate circostanze. Per raggiungere questo obiettivo, il primo articolo presenta perciò i risultati di una revisione sistematica della crescente ed interdisciplinare letteratura sull'argomento e li collega attraverso il quadro olistico della teoria degli *stakeholder*, sostenendo che le cooperative di piattaforma *multi-stakeholder* sono la struttura di governance più coerente con il progetto di un'economia digitale più democratica ed equa e presentano specifici vantaggi competitivi rispetto alle piattaforme commerciali private. Il secondo articolo si fonda idealmente su questi risultati e critica contributi esistenti che adottano la prospettiva del contratto sociale, la più compatibile con una forma di governance estesa e democratica, per giustificare invece l'attuale potere unilaterale di definizione delle regole da parte delle piattaforme digitali private e la conseguente distribuzione ineguale del valore creato. Pertanto, il terzo articolo, riconoscendo al contrario l'affinità tra teoria del contratto sociale e strutture di governance *multi-stakeholder*, presenta un esercizio normativo di disegno istituzionale incentrato sulla proposta di un contratto sociale multi-livello per guidare l'equa divisione di diritti e libertà tra i diversi

stakeholders di ciascuna piattaforma. Dato il carattere infrastrutturale delle piattaforme digitali, che suggerisce una loro gestione come *commons*, l'articolo assume però le *capabilities* Seniane come base informativa di tale contratto anziché i *primary goods* Rawlsiani. Infine, al fine di fornire un collegamento empirico all'argomentazione normativa, il quarto articolo considera una specifica categoria di *stakeholders*, vale a dire i *gig workers*, e mostra i risultati di un'indagine qualitativa condotta con *riders* operanti in un particolare contesto urbano preso come caso di studio—ovverosia la città italiana di Verona—per valutare l'impatto del lavoro di piattaforma sul loro *flourishing* personale e professionale e farli partecipare al processo di teorizzazione condivisa di un modello organizzativo alternativo che rafforzi le loro *capabilities* anziché ridurle. Le cooperative di piattaforma si confermano così come una delle opzioni più promettenti da considerare anche alla luce dei risultati della ricerca empirica.

ENGLISH ABSTRACT

This paper-based dissertation, made up of four thematic articles, wants to contribute to one of the primary issues that characterize the current discourse on sustainability: how to redress the downsides of the so-called “platform capitalism” in order to make possible an inclusive, democratic, and just digital transition for a wide group of stakeholders. In particular, it analyzes the recent proposal of platform cooperatives, namely, platforms that are democratically governed and collectively owned by their workers and users. More specifically, the dissertation focuses on the ethics and economics of “platform cooperativism,” aiming to demonstrate that the cooperative organizational model for digital platforms is more justifiable from a normative point of view and even economically more efficient under certain circumstances. To reach this goal, the first article presents the results of a systematic review of the growing and interdisciplinary literature on the topic and connects them through the holistic framework of stakeholder theory, arguing that multi-stakeholder platform cooperatives are the governance structure most coherent with the project of a more democratic and equitable digital economy and present specific competitive advantages as compared to private commercial platforms. The second article ideally builds on these results and criticizes existing contributions which adopt the social contract perspective, the most compatible with a democratic and extended form of governance, to justify instead the current unilateral rule-setting power of private digital platforms and the consequent unequal distribution of the value created. Hence, the third article, recognizing, on the contrary, the affinity between the social contract theory and multi-stakeholder governance structures, presents an exercise of normative institutional design focused on the proposal of a multi-level social contract for guiding the fair division of rights and liberties between the different stakeholders of each particular platform. However, given digital platforms’ infrastructural character, which suggests their governance as *commons*, the paper takes

Senian capabilities as the informational basis of such a contract instead of Rawlsian primary goods. Finally, in order to give an empirical connection to the normative argument, the fourth article considers one specific category of stakeholders, i.e. gig workers, and shows the findings of a qualitative inquiry conducted with food-delivery couriers operating in a particular urban context taken as a case study—that is, the Italian city of Verona—to assess the impact of platform work on their personal and professional flourishing and co-theorize with them a capability-enhancing alternative organizational model. Platform cooperatives are confirmed in this way to be one of the most promising options to consider even in light of the results of the empirical research.

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Governing Sharing Platforms Cooperatively: Essays in the Perspective of Social Contract Theory and the Capability Approach

We find ourselves in the midst of a battle over the institutional ecology of the digital environment. A wide range of laws and institutions [...] are being tugged and warped in efforts to tilt the playing field toward one way of doing things or the other. How these battles turn out over the next decade or so will likely have a significant effect on how we come to know what is going on in the world we occupy, and to what extent and in what forms we will be able [...] to affect how we and others see the world as it is and as it might be

(Benkler, 2006: 2)

Without any doubt, in the last few years, the issue of how to make the digital transition just, inclusive, and sustainable for the involved stakeholders has assumed an increasing centrality in the public debate. Such an issue is directly related to one of the major transformations modern societies have witnessed: the adoption of digital platforms to disintermediate the matching of demand and supply, facilitate horizontal exchanges of goods and services between people, and organize tasks on-demand (Warhurst et al., 2019). Due to the importance of these features, digital platforms have in fact an enormous and twofold effect on our daily lives and are key factors of sustainable development, contributing to shaping the digital transition.

In particular, after the shock of the global financial crisis, the advent of the first “sharing platforms,” such as BlaBlaCar, Couchsurfing, Airbnb, and Uber, was initially welcomed as the harbinger of a process of democratization of the entire economic system. Made possible by the invention of the smartphone and based on the idea of enabling the sharing of idle assets among peers through digital means in order to tackle overconsumption and extreme market inequalities, the sharing economy was indeed depicted by its original

proponents and supporters as the first step towards a new economy and society based on the freedom to access shared resources and collaboratively create, distribute, and consume value (Botsman, & Rogers, 2010; Pais, & Provasi, 2015; Schor, & Cansoy, 2019).

However, venture capital soon entered the board of directors of the leading tech companies of the time, imposing a “shareholder value” and profit-oriented mentality and turning ideals into “business as usual.” Accordingly, the same term sharing economy started to be used just as a marketing expedient aimed at covering outcomes that did not have anything in common with the concept of sharing (Ravenelle, 2017) and a group of big investor-owned platforms from Silicon Valley (like the same Airbnb and Uber) ended up monopolizing digital markets and radicalizing some of the most problematic aspects that characterize capitalist enterprises. Therefore, some scholars are currently referring to this business model as “platform capitalism” (Srnicsek, 2017), “neoliberalism on steroids” (Murillo, Buckland, & Val, 2017), or the “gig economy” (De Stefano, 2016) and, afraid for the governance of the Internet, are arguing for the necessity of alternative institutional solutions.

In light of this scenario, the general problem that moves this dissertation is how to limit the negative outcomes of digital platforms on their different stakeholders, such as workers, customers, and third parties in society, without renouncing the many advantages they can offer. Some of the main negative outcomes of platform capitalism on which I will focus are: the misclassification of employment relations and the externalization of the entrepreneurial risk on workers, the “Uberization” of working conditions and labor markets, the unilateral extraction of value (even in the form of data), the extensive adoption of surveillance practices through algorithmic management systems, the platforms’ anti-competitive behaviors, and their increasing role of gatekeepers concerning essential infrastructures of our daily lives and the provision of public utility-like services (Davis, 2022;

De Stefano, 2016; Frenken, & Fuenfschilling, 2021; Marciano, Nicita, & Ramello, 2020; Mazzucato, Ryan-Collins, & Gouzoulis, 2020; Ravenelle, 2017; West, 2019; Zuboff, 2019).

Tackling these and similar issues and reviving instead the original project of economic democratization of the Internet is definitely in the spirit of the PhD program in Law, Ethics, and Economics for Sustainable Development (LEES) in which I am enrolled. Moreover, it is also at the centre of some of the most progressive legal documents recently developed by the EU for regulating the sector, such as the *Platform Work Directive*, the *General Data Protection Regulation*, the *Digital Services Act*, the *European Data Governance Act*, and the *Digital Markets Act* (Aloisi, & De Stefano 2024; European Commission, 2024a, b; Haeck, 2024).

At the same time, considering these kinds of documents, we have to acknowledge how fixing minimum standards for protecting stakeholders' interests and fundamental rights in the digital environment can represent just half of the answer. A complementary strategy that would deserve attention is to actively sustain more democratic and equitable bottom-up initiatives that can thrive in an enabling and more certain legal context. One of the most promising alternatives that have been recently proposed in this sense is probably the organizational model known as "platform cooperativism," which consists of "businesses that sell goods or services primarily through a website, mobile app, or protocol" and "rely on democratic decision-making and shared platform ownership by workers and users" (Platform Cooperativism Consortium, 2024).

The New School's professor and digital activist Trebor Scholz was the first to theorize this concept, speaking about the opportunity of "cloning or creatively altering the technological heart of the sharing economy" (2017: 174) through the implementation of the 7 principles of the International Cooperative Alliance (i.e. open and voluntary membership;

democratic member control; members' economic participation; autonomy and independence; education, training and information; cooperation among cooperatives; concern for community) in order to tackle the aforementioned challenges. Nevertheless, until now, such a niche project has got (increasing) attention mostly thanks to the work of social entrepreneurs, gig workers' collectives, and activists from all over the world, often united in the Platform Cooperativism Consortium led by Scholz himself. Hence, at this stage, the global rise of platform cooperativism needs interdisciplinary academic research and formalization to guide cooperatives and policymakers in developing socially, environmentally, and economically sustainable solutions that could overstep the current niche boundaries and become an actual alternative to private commercial platforms. With this dissertation, I specifically want to offer my contribution to such a task from a business ethics viewpoint by analyzing the platform cooperativism ethics and economics in order to answer the following research question:

Can a democratic governance structure for sharing platforms based on the involvement of different stakeholders in value creation and distribution such as that of platform cooperatives prove to be both normatively justifiable and economically viable?

To address this question, I adopted an interdisciplinary perspective and developed four thematic articles,¹ combining stakeholder theory, the theory of the firm, and social justice theories, like the social contract framework and the capability approach, with systematic review and qualitative methodologies.

In the first article of the dissertation, a systematic review of the interdisciplinary and growing literature on the topic is conducted through the lenses of the stakeholder theory approach to connect the existing but dispersed contributions through a holistic framework. In

¹ Two versions of the first and fourth articles have been published respectively in the *Annals of Public and Cooperative Economics* and the *Journal of Human Development and Capabilities*. Moreover, a revised version of the second one has been published in the *Business Ethics Quarterly* after further input from the journal's editor.

this way, the article details the possible strategic complementarities between the different stakeholders of a platform co-op and the competitive advantages that an extended governance model for platforms does own as compared to capitalist firms. Furthermore, the literature review also connects platform cooperatives back to the traditional discussion conducted in corporate governance theory about the general advantages and disadvantages of the cooperative model and proposes the multi-stakeholder membership type as the most coherent one to make use of consolidated knowledge, giving substance in this vein to the project of a more democratic and equitable digital economy.

Building on these ideas and aiming to develop a normative justification for the platform cooperativism concept, the dissertation unfolds then by implementing the theoretical framework that can be considered most compatible with a multi-stakeholder governance structure: the “social contract of the firm” (Sacconi, 2000). Interestingly, this choice conforms also with the increasing demands for a new social contract for the digital economy that can protect the rights of different stakeholders while addressing the issue of tech governance in light of the exacerbation of social inequalities determined by technological innovation and the contemporaneous proliferation of global crises such as climate change and the Covid-19 pandemic (Burrow, 2021).

Therefore, first, in the second article of the dissertation, a critical commentary of a contribution recently published in the *Business Ethics Quarterly*, i.e. “Ordo-responsibility in the Sharing Economy: A Social Contracts Perspective” (Hielscher, Everding, & Pies, 2022), is provided. This article could be considered as the *pars destruens* of the thesis that identifies unacceptable applications of the social contract theory and shows how this theory should properly be implemented in the sharing economy. Indeed, the commented contribution, starting from a Hobbesian interpretation of the early Internet, applies James Buchanan’s (1975) constitutional contractarian theory to justify the legitimacy of the current unilateral

rule-setting role of private sharing platforms and their related neoliberal governance structure. The commentary presents instead another understanding of constitutional contractarianism, referring to both the ex-ante agreement and the ex-post compliance problems, and reframes the evolutionary process of institutions' selection within the domain of the sharing economy consistently with the idea that the Internet should be intended as a common pool resource. As a consequence, the commentary can argue that a better account of constitutional contractarianism and institutional reconstruction of the phenomenon would imply a cooperative form of governance for sharing platforms.

Subsequently, in the third article of the dissertation—that should be rather interpreted as the *pars construens* of the previous one—I further develop these ideas and design a multi-level social contract in order to guide the concrete arrangement of more equitable governance structures for digital platforms. The force of this argument is that the proposed normative framework is not only applicable to the platforms of the sharing economy and opens to different possible juridical concretizations (see Sacconi, 2006), contributing to a broad reform of the institutional ecology of the digital environment. However, at the same time, I will show how the juridical concretization most compatible with such a framework in the sharing economy domain would be precisely that of a multi-stakeholder platform co-op. The justification of this proposal relies on the following series of interconnected steps:

- 1) Two specifications are added to the theoretical framework which inspires the article, i.e. Rawlsian contractualism. First, an “infrastructural account” of the basic structure is proposed. Namely, moving from the qualification of infrastructures as shared resources essential to citizens for pursuing non-ex ante foreseeable different plans of life (Frischmann, 2012), they are presented as homomorphic to Rawlsian social primary goods (Sacconi, 2015) and the rules governing them are introduced as the possible object of a constitutional

contract bargained behind a veil of ignorance by different stakeholders according to the idea of “justice as fairness” (Rawls, 2001). Moreover, since infrastructures normally share with common pool resources the same intrinsic features of non-excludability and (only partial) rivalry and the possibility to generate positive spillover effects when appropriately governed and managed, it is argued that the specific rules that such a contract would select should be modeled in compliance with the principles of the *commons* (Ostrom, 1990), guaranteeing infrastructures’ openness for both efficiency and ethical reasons. Second, when a social contract is designed to operate as the normative framework for the governance of a shared infrastructure, I claim that the richer metric of justice represented by Senian capabilities should be taken as its informational basis due to the co-essentiality of the capability notion with the governance of the commons.

- 2) The institutionalist part of the argument is then introduced. More specifically, since the Internet is a non-excludable and (partially) rival multi-layered conglomeration of different infrastructure resources intertwined with each other and thus an input to different functionings that its users can achieve in a mutually beneficial way (Frischmann, 2012), it is presented as a field of application of the theory. Consequently, a multi-level version of the social contract theory, which is an approach pioneered by Buchanan (1975), Donaldson and Dunfee (1999), and Sacconi (2006), is developed in parallel to the Internet multi-layered structure for extending the principles of the commons to the governance of digital platforms (such as openness for the reference communities, self-government, and users’ equal rights).

- 3) The resulting multi-level social contract informed by the capability approach that I propose for guiding the arrangement of more democratic governance structures for digital platforms is detailed and platform cooperatives are introduced as the most compatible option to operationalize this contract in the sharing economy domain.
- 4) The real-life example of the French platform co-op project CoopCycle is described through the lenses of this normative framework to test its effective meaningfulness and plausibility.

To conclude, in the fourth and last article of the dissertation, I finally try to provide some of the normative ideas developed in the previous contributions with an empirical application in order to make them less abstract and show their actual relevance and applicability. Accordingly, I selected a particular sector of the sharing economy (i.e. the food-delivery sector), a particular stakeholder (i.e. food-delivery workers, also known as “riders”), and a particular level of service provision (i.e. the urban context, taking the Italian municipality of Verona as a case study) to conduct a qualitative inquiry aimed at assessing the impact of food-delivery platforms on riders’ capabilities. Two are the main objectives that guided this inquiry: 1) to evaluate how food-delivery platforms, according to the lived experience of gig workers, can act as capability-enhancing or capability-reducing institutions depending on how they are managed and on workers’ individual characteristics (see Bueno, 2022; Lamers et al., 2022); 2) to involve selected riders in a co-theorizing process on how platforms should be designed to enhance the capabilities identified in the empirical research (cf. Zhang et al., 2022). Platform cooperatives have been one of the main options discussed with the interviewees, confirming in this way the theoretical arguments previously presented.

To reach these two objectives, this article combines two different qualitative methods: a covert auto-ethnography (Gobo, 2008), during which I worked as a food-delivery worker to

assess the impact of platform work on my individual capabilities and build a preliminary list, and a series of in-depth semi-structured interviews, inspired by the “dynamic public reflective equilibrium” technique (DPRE) developed by Jonathan Wolff and Avner de-Shalit (2007), thanks to which I discussed this list with the final beneficiaries of the research and used it to conduct the platform evaluation. Accordingly, the inquiry points to the importance for gig workers’ flourishing of platforms that enhance the dimensions of health and workplace safety, mental health at work, affiliation with other workers, participation in the governance, work performed under a protective labor legal framework, job satisfaction, and access to information.

Further, in addition to contributing to the principles that should govern platforms’ design, this article also tries to make two specific contributions to the literature on the capability approach. Methodologically, it enters the so-called “list debate” by proposing a “synthesizing method” (Byskov, 2018) for selecting capabilities that combines philosophical with empirical insights in order to reconcile the conflicting positions on the topic of Amartya Sen and Martha Nussbaum (Claassen, 2011). Theoretically, it frames the capabilities that have been identified as a result of the qualitative inquiry under a “meta-capability” for meaningful work, which is added to Nussbaum’s list of central human capabilities (cf. Holland, 2008; Weidel, 2018), opening the path to a multi-level analysis of a flourishing life’s different dimensions.

Consequently, as can be appreciated by this introduction, the collection of the four articles, apart from trying to answer the research question of the dissertation, offers several specific contributions to the existing debate on the dynamics and potential of platform cooperatives and other ethical forms of platform organizing. For a summary of the four articles’ intended contributions, theoretical frameworks, and methods adopted, see Table 1 below. Nevertheless, the dissertation of course comes with limitations too and opens the

avenue for future research. Before presenting the four thematic articles, I want to mention four possible research projects on which I could focus in the next steps of my academic career to expand the insights of the thesis:

- 1) The dissertation does not scrutinize a fundamental component in the success of platform cooperatives, that is, consumers' willingness to pay for ethical products and services in order to reciprocate workers' specific investments and risk assumptions. This could be done, for example, by running a laboratory experiment to test consumers' purchasing behavior and preferences under an appropriate treatment that brings them to frame themselves as team members of a joint production effort instead of simply self-regarding individuals.
- 2) The dissertation mentions but does not conduct any in-depth analysis of the different ways in which public institutions, especially progressive municipalities, may actively support platform cooperatives in their competition with capitalist platforms without compromising the 4th ICA principle (Autonomy and independence). One possible example worthy of investigation is the implementation of sustainable public procurement initiatives oriented to the provision of quasi-public services via digital means.
- 3) Future research could consider different strategies for a more equitable digital economy that could complement platform cooperatives at other levels, in the spirit of a pluralistic ecosystem of synergistic institutions. In fact, while platform cooperatives seem to offer a promising alternative to mainstream sharing economy platforms, the democratization of the digital economy passes through analyzing also the normative justification and economic viability of other solutions, such as national and supranational regulation aimed at protecting citizens' digital sovereignty and guaranteeing a fair legal

environment for platform competition, civic and semi-public platforms, data commons, and decentralized autonomous organizations (see Muldoon 2022).

- 4) Finally, future research could expand the empirical inquiry conducted in the fourth article in order to assess the capabilities at stake in other platforms and contexts and for other relevant stakeholders, such as consumers, investors, managers, or even third parties in societies, aiming to make the results more generalizable and further scrutinize the actual conditions under which platform cooperatives may become capability-enablers.

Table 1 – Summary of the Articles’ Intended Contributions, Theoretical Frameworks, and Methods

Article	Intended Contribution	Theory	Methodology
First	Systematic review of the literature on platform cooperativism through the lens of stakeholder theory; proposal of the multi-stakeholder membership type as the most coherent one with the platform co-op project; identification and analysis of platform co-ops’ competitive advantages and challenges	Stakeholder Theory, Corporate Governance Theory	Systematic Literature Review

Second	Criticism of social contract-based justifications of the current unilateral rule-setting role and governance structure of sharing platforms	Social Contract Theory, Institutional Economics	Commentary
Third	Normative justification of the cooperative governance of the sharing economy	Social Contract Theory, Capability Approach, Institutional Economics, Corporate Governance Theory	Normative Institutional Design
Fourth	Evaluation of the platform work's impact on riders' capabilities and co-theorization of an alternative capability-enhancing platform	Capability Approach, Co-theorizing	Auto-ethnography, In-depth Semi-structured Interviews

Source: Author's own elaboration

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An Alternative Organizational Model for a More Democratic and Equitable Digital Economy: A Systematic Literature Review on Platform Cooperativism through the Lens of Stakeholder Theory. Competitive Advantages and Challenges.²

ABSTRACT

Platform cooperatives, namely, businesses that sell goods or services primarily through a website, mobile app or protocol and commit to the principles of democratic governance and shared ownership, have lately been proposed as a more sustainable, equitable and, under certain conditions, even efficient alternative to the organizational model of commercial platforms. Accordingly, they have been presented as economic institutions capable of involving all their relevant stakeholders in an extended and inclusive governance structure. Nevertheless, this emerging literature is still characterized by the lack of a holistic and analytic framework connecting the dispersed studies on the topic through the lens of stakeholder theory and detailing strategic complementarities between these different stakeholders. Related to this point, while dealing with the competitive advantages and challenges of platform cooperatives, little reference has been made to the existing debate in governance theory about the advantages and challenges of cooperative firms as compared to

² A version of this article, co-authored by Prof. Vassil Kirov of the Bulgarian Academy of Sciences, has been published under the CC-BY license in the *Annals of Public and Cooperative Economics*. The reference is: Ghirlanda, P., & Kirov, V. 2024. An alternative organizational model for a more democratic and equitable digital economy: A systematic literature review on platform cooperativism through the lens of stakeholder theory. Competitive advantages and challenges. *Annals of Public and Cooperative Economics*: 1–25. DOI: <https://doi.org/10.1111/apce.12478>. Note that the article is a systematization, expansion, and re-elaboration of the results of a previous collaboration of the two authors for a section on alternative platform models of the working paper “Value Creation and Extraction in the Platform Economy: A Comparative Approach” (Ryan-Collins et al., 2022) published in the context of the Horizon 2020 project BEYOND4.0.

CRedit Authorship Contribution Statement: Pietro Ghirlanda: Conceptualization, Data Curation, Investigation, Methodology, Visualization, Writing – Original Draft, Writing – Review & Editing. Vassil Kirov: Conceptualization, Funding Acquisition, Supervision, Writing – Review & Editing.

capitalist ones. These research gaps motivated our literature review, which is the first comprehensive systematic review specifically focused on this topic. Given the still-emerging character of the research object, our work also makes way for future updates as new contributions are gradually published.

Keywords: platform cooperativism, stakeholder theory, multi-stakeholder cooperatives, governance theory, cooperative advantage

One of the key technological transformations to have impacted business models in the last decade is the emergence of the platform economy and, more specifically, a development sometimes called ‘Uberization’ (Warhurst et al., 2019). Uberization, a term coming from the ride-hailing platform Uber, is a technological process that helps migrate work to platforms via digital interfaces that connect users across networks and facilitate the commodification and exchange of goods and services—a process already studied in the past (Putterman, 1989), but which is now for the first time being mediated by algorithms. However, despite the initial expectations of transaction costs’ reduction and greater opportunities for all the stakeholders, this organizational model started to be linked soon to the risks of precarious working conditions, data extraction, bogus self-employment, and algorithmic surveillance (De Stefano, 2016; Mazzucato, Ryan-Collins, & Gouzoulis, 2020; Ravenelle, 2017; Zuboff, 2019). As a consequence, in the last few years, a growing literature has been proposing alternative organizational models for platforms aiming to guarantee a fairer redistribution of value among stakeholders and better sustainability while preserving economic efficiency.

This literature review focuses on the emergent phenomenon of the “platform cooperativism,” i.e. “businesses that sell goods or services primarily through a website, mobile app, or protocol” while relying “on democratic decision-making and shared platform ownership by workers and users” (Platform Cooperativism Consortium, 2024). It was the

New School's professor Trebor Scholz (2016) who first coined the term and opposed it to platform capitalism, suggesting that it offers the opportunity to adapt the roughly 180-year history of the cooperative movement and its guiding principles of democratic governance and shared ownership to solve the present challenges posed by the digital economy and make platforms more democratic and equitable (Papadimitropoulos, 2021). Thanks to this explicitly claimed affiliation, apart from reviewing the literature on the topic, this article also aims to connect platform cooperatives back to the traditional discussion about the competitive advantages (and disadvantages) of cooperative firms as compared to capitalist ones (Alchian, & Demsetz, 1972; Borzaga, Carini, & Tortia, 2022; Hansmann, 1996; Rose-Ackerman, 1996; Spear, 2000).

Indeed, up to now, this idea has never been analytically linked yet to the existing debate about (multi-stakeholder) cooperatives and (cooperative) networks within the theory of the firm (Aoki, 2001, 2011; Borzaga, & Sacchetti, 2015; Menzani, & Zamagni, 2010; Novkovic, & Holm, 2012; Powell, 1990; Sacchetti, & Tortia, 2015; Spear, 2000). For the same reason, it is also missing a framework capable of connecting all the dispersed existing contributions dealing with the different stakeholders of a platform co-op, showing strategic complementarities among them, and detailing a coherent extended governance model as well as assessing the competitive (dis-)advantages that platform cooperatives have as compared to traditional ones. That's the reason why we conducted for the first time (to the best of our knowledge) an up-to-date and comprehensive systematic review of the literature linking through the holistic framework of stakeholder theory a plurality of contributions coming from different disciplines.³ In addressing these gaps and coherently with the same platform

³ The only comparable work is another literature review by Zhu and Marjanovic (2021) which maps articles published between 2014 and 2020 dealing with the social impact and values of platform cooperatives. However, because of their use of only Google Scholar as a database, the narrow focus of their research question, and their analysis of also papers not strictly connected with platform cooperativism, we consider our systematic review an original contribution to the academic debate on

cooperativism idea, the article aims to focus in particular on presenting multi-stakeholder platform co-ops as the governance structure best suited to give substance to the project of a more democratic and equitable digital economy.⁴

To reach these goals, the review was organized as follows. It first summarizes the background that influenced the formation of the platform cooperativism movement and the basic concepts necessary for understanding the interpretation proposed in this article. Second, it explains the systematic methodology and steps undertaken for reviewing the literature. Third, it presents the main findings and the analytic framework used to assess and connect these findings. Fourth, it critically discusses the findings in light of the identified research gaps. Fifth, it dedicates a separate section for assessing the competitive advantages and challenges of platform co-ops. Finally, it concludes by recapping the argument and opening up future paths of analysis.

1. BACKGROUND AND BASIC CONCEPTS

As a matter of fact, economic transactions conducted via online platforms are currently a key public policy issue and research topic. In this context, scholars have first described digital platforms as new hybrid business organizations capable of eroding the traditional boundaries between markets and firms thanks to technological features that reduce transaction costs in horizontal peer-to-peer exchanges (Cansoy et al., 2021; Sundararajan, 2016). According to

this topic. Moreover, recently, Wegner et al. (2023) dedicated a section of their management-focused systematic review of collaborative digital platforms to platform co-ops and Mannan and Pek (2023) analyzed the challenges that worker-owned platform cooperatives have to face because of the inherent tensions between the “platform” organizational model and the “worker cooperative” organizational model. Analogous tensions between entrepreneurial needs and cooperative ideals suffered by gig workers’ cooperatives in the development phase and connected with the costs of member participation in the governance have been respectively analyzed by Bunders and De Moor (2023) and Bunders (2023).

⁴ This research path has been opened by studies like Vidal (2022) and Mannan, Pek, & Scholz (2023). A similar objective also motivated the research project TAPAS (There Are Platforms as AlternativeS), financed by the French Ministry of Labour and the Ministry of Solidarity and Health and co-conducted by the CEPN (Centre d’Economie de L’Université Sorbonne Paris Nord) with the association La Coop des Communs (Vercher-Chaptal, 2021).

this narration, the platform economy was thus initially intended as merely a new way of allocating tasks and matching demand and supply: instead of being delegated to employees hierarchically integrated into the firm via work contracts as in traditional companies (Coase, 1937; Grossman, & Hart, 1986; Hart, & Moore, 1990; Hart, 1995; Williamson, 1985), tasks would be outsourced “on-demand” to a larger group of autonomous “cloud” or “gig” workers formally acting as “independent contractors” (Schmidt, 2017), who, in future transactions, could also potentially act as consumers. However, the emergence and development of online platforms have quickly proven to be far from limited to the simple role of market-matching digital systems.⁵ Indeed, following the OECD, “the term ‘online platform’ has been used to describe a range of services available on the Internet including marketplaces, search engines, social media, creative content outlets, app stores, communication services, payment systems, services comprising the so-called ‘collaborative’ or ‘gig’ economy, and much more” (2019: 20). It is for this transformative power that the platform economy has become a prominent subject of analysis.

Nevertheless, this interest has also been accompanied by an increasing amount of criticism. Among the targets are the risks already presented in the introduction, i.e. precarious working conditions, data extraction over users, bogus self-employment of gig workers, and thorough algorithmic surveillance. Hence, rather than representing new democratic forms of business organizations able to reduce stakeholders’ underinvestment and give them back control over the value they generate, digital platforms have been accused of ultimately

⁵ Smicek (2017) recognizes, for example, five different types of platforms: “lean platforms” (where on-demand tasks are externalized to cloud or gig workers, such as Amazon Mechanical Turk and Deliveroo), “advertising platforms” (which monetize on selling advertising spaces and extracting value from customers’ data, such as Google and Facebook), “industrial platforms” (which represent the attempt to bring platforms under traditional manufacturing, such as in the case of Intel or Microsoft), “cloud platforms” (which profit from controlling the digital infrastructure in a way that can be rented out, such as Amazon) and “product platforms” (which sell purely digital products, such as Spotify).

reaffirming and exacerbating the same hierarchical features typical of traditional capitalist enterprises (Muldoon, 2022; Sacconi, 1999; Srnicek, 2017). For example, the residual control right (Grossman, & Hart, 1986; Hart, & Moore, 1990; Hart, 1995), i.e. the ability to exclude other users from the use of the platform and renegotiate standards in ex-ante unpredictable circumstances, is still in the hands of the platform owner, while the biggest part of the entrepreneurial risk is shifted to workers who are formally treated as autonomous independent collaborators and thus even more vulnerable to abuses of power (Bieber, & Moggia, 2021).

Critics, even if concerned with various aspects of platform capitalism and adopting different theoretical and sometimes ideological perspectives, have therefore opened a common path towards the search for alternative organizational models of platforms that are not involved in extractive logic, power abuses, or predatory “crowd fleecing” (Scholz, 2017). Accordingly, alongside the role of advocacy played by some activists, there is now a shared recognition of the need to analytically assess how institutionalized forms of stakeholder participation and co-determination in the platform economy can represent a viable and complementary alternative with public policies and regulation on the one hand and civil society/grassroots movements’ forms of collective action on the other (Bunders, 2021). The platform cooperativism idea represents probably the most comprehensive answer that has been developed in this sense. Hence, we decided to conduct the review of this innovative organizational model under the framework of the “stakeholder theory” approach.

Such an approach consists precisely in the view that efficient business decisions have some inherent ethical content and that “people engaged in value creation and trade are responsible [...] ‘to those groups and individuals who can affect and be affected by their actions’” (Freeman et al., 2010: 9). This definition includes both those who are essential for the viability of the business, i.e. the “primary stakeholders”—employees, suppliers,

financiers, customers, and communities—and the broader group of those who can have some influence on it, i.e. the “secondary stakeholders”—such as consumer advocate groups, special interest groups, competitors, media, and governments (see 2010: 24, 26). Thus, following stakeholder theory, these actors interact and contribute at different levels to the value creation process, and they should be taken into consideration accordingly.⁶

Coherently, from the outset of the platform cooperative movement (Scholz, 2016) to the most recent developments (Scholz, 2023), multiple stakeholders have been considered parts of a “platform cooperative ecosystem” claiming that they are decisive for the success of platform co-ops, i.e. developers, workers, customers, public institutions, investors, suppliers, third parties, activists, and academics (see also Acquier, Daudigeos, & Pinkse, 2017). In the same regard, even the other founding father of the platform cooperative movement, Nathan Schneider, speaks of a platform cooperative ecosystem in his proposal of an alternative form of ownership for the digital economy (2018). Namely, “under the banner of ‘platform cooperativism,’” he stresses how “an emerging network of cooperative developers, entrepreneurs, labor organisers and scholars is developing an economic ecosystem that seeks to align the ownership and governance of enterprises with the people whose lives are most affected by them” (Schneider, 2018: 320).

As a consequence, in contrast to the traditional mono-stakeholder view through which the viability of cooperatives is usually assessed (Hansmann, 1996), the stakeholder approach seems to suit better with the organizational design of a multi-stakeholder platform co-op. Indeed, the main feature of a multi-stakeholder cooperative is exactly to include multiple stakeholders in its governance and ownership structures with the objective of having a positive social impact and acting in the “public interest” in addition to pursuing mutuality

⁶ The term “stakeholder” is used in this article in the broadest possible sense of the word, i.e. as someone who has some sort of stake in the firm.

purposes. Multi-stakeholder cooperatives have thus traditionally developed strong connections with governments, particularly at the local level, and have also proven to be more efficient than mono-stakeholder cooperatives in some contexts—such as the provision of public utility services—because of their inherent capacity to reduce the costs of excluding relevant actors from the organization of production and management of these services (Borzaga, & Sacchetti, 2015). It is precisely for these reasons that we looked at the multi-stakeholder membership type as the most coherent one to adopt for implementing the platform cooperativism idea and guiding the review of the literature through the lens of stakeholder theory (see also Mayo, 2019 on the focus that the International Cooperative Alliance should have on multi-stakeholder platform co-ops).

2. METHODOLOGY

Adopting a systematic review approach has often been considered the most appropriate strategy to summarize the academic literature on a certain topic while giving other scholars and practitioners evidence-based insights on filling a particular research gap (Petersen, 2019; Tremml, 2019). As we anticipated in the introduction, this review aims to collect, evaluate and connect, through a holistic framework, high-quality contributions that analyze the different stakeholders who can be involved in a synergistic platform cooperative as well as the main advantages and challenges of platform co-ops as compared to other commercial kinds of platforms. All the papers that have been considered for review were published after 2016, when Scholz wrote the first structured contribution on the topic (Scholz, 2016) by systematizing his 2014 seminal web article “Platform Cooperativism vs. the Sharing

Economy” in which he invented the term and sparked the discussion (Scholz, 2014).⁷ We decided to limit our review up to 2022.

Indeed, given the still-emerging character of the research object (Figure 1), not only peer-reviewed journal articles but also books, book chapters, conference papers, and reports coming from different disciplines had to be included. Therefore, in order to maintain the possibility of having a criterion of inclusion, only cited works were considered. This choice has determined a limitation, i.e. the impossibility of assessing the most recent contributions—considering also papers published in 2023 would have weakened a criterion of inclusion based on citations. For this reason, we leave for the future the task of updating this review to map new developments in the literature.

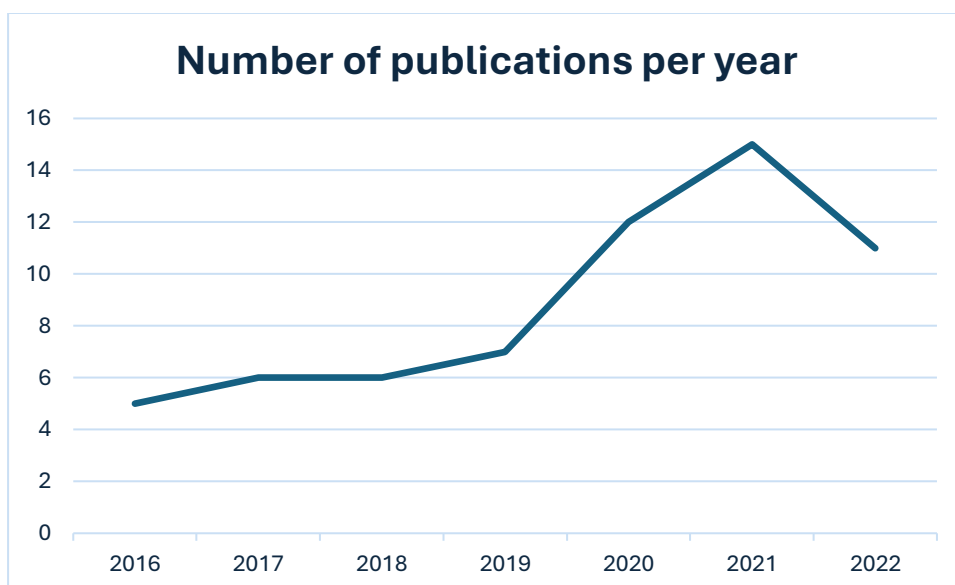
The applied methodology was inspired by the systematic approach proposed by Booth, Papaioannou and Sutton (2012) and critically engages with the previous work of Zhu and Marjanovic (2021). Accordingly, first, the keywords “platform cooperativ*” and “platform co-op*” were used to scope papers within the Scopus and Web of Science databases, searching in titles, abstracts, and keywords (last search on 13/09/2023). Next, by applying the pearl-growing technique, other relevant papers were identified (Booth, Papaioannou, & Sutton, 2012). This led to the identification of 223 contributions, while the language of publication was restricted to English—the main language in which the discussion is being conducted.⁸ Finally, duplicated articles were excluded, and we ended up with 156 articles to screen.

⁷ In those years, other relevant web articles were published, such as “The Sharing Economy Just Got Real” (Orsi, 2013) and “Owning is the New Sharing” (Schneider, 2014). Some echoes can also be found in “Debating the Sharing Economy” (Schor, 2014).

⁸ Recently, there has been a growth of interest in the topic in the Global South, particularly in Brazil in relation to possible expansions and adaptations of the definition of the same term platform cooperativism (Grohmann, 2022). Therefore, there are now many articles on platform cooperatives written in Portuguese and valuable contributions have been published even in Spanish (such as

In the second phase, by screening abstracts and titles from all these papers, those using the keywords in other contexts not referring to the topic of platform cooperativism were eliminated. 80 papers were thus retrieved. Subsequently, we excluded non-referenced papers (i.e. papers without citations), leaving 70 eligible articles. Finally, after completing an in-depth reading process for all 70 papers, we excluded another 8 articles that we considered not relevant to fill the research gaps we had decided to address.⁹ This led to the identification of 62 contributions that have been included in the literature review list (see Appendix A). Figure 2 below summarizes the entire review procedure using the “Preferred Reporting Items for Systematic Reviews and Meta Analyses” (PRISMA) model (Page et al., 2021).

Figure 1 – Number of Publications per Year



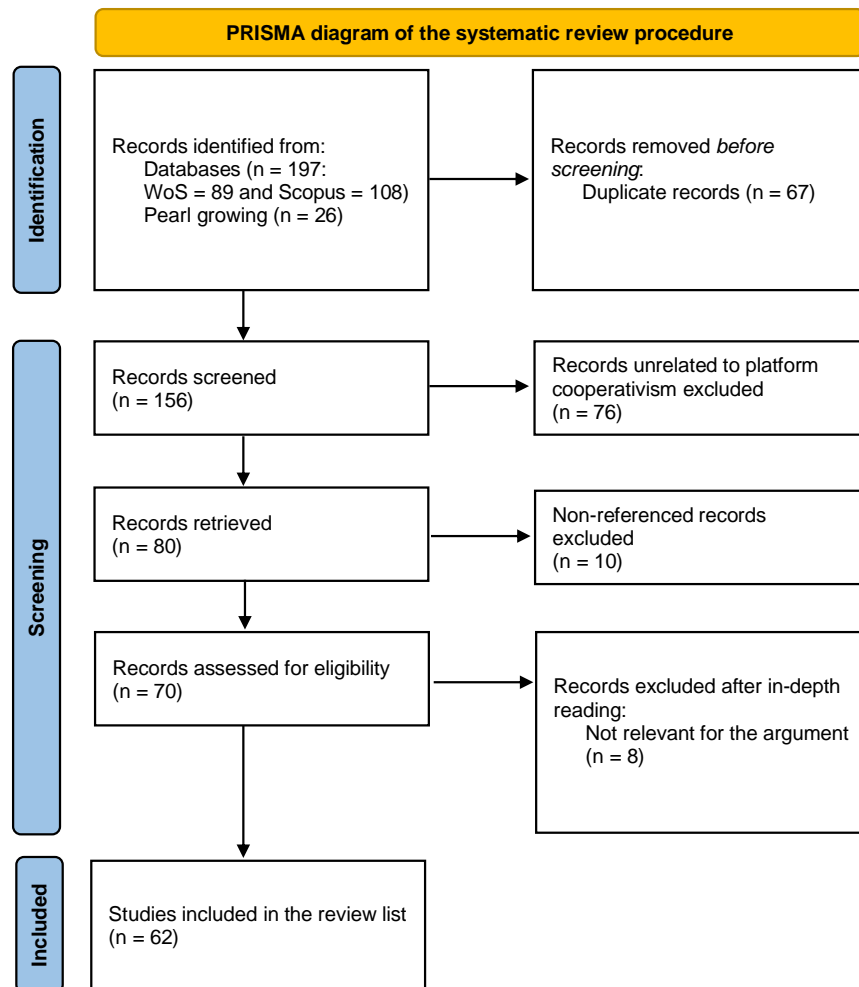
Source: Authors' own elaboration

Hernández Carrión, 2022). A future update of the systematic review should consider these new trends in the literature.

⁹ Those articles were mainly devoted to assessing the ideological dimension of platform cooperativism, peculiar technological aspects of the phenomenon, and those connected with the human-computer interaction dimension, or they were specific case studies about farmers or food system cooperatives.

The figure shows the relatively few contributions published on the topic and the still-emerging character of the research object on the one hand, but also the considerable rise of interest in the last few years on the other—probably influenced in part by the huge spread of digital platforms after the pandemic crisis (Calzada, 2020). The last search was on 13/09/2023.

Figure 2 – PRISMA Diagram of the Systematic Review Procedure



Source: Adapted from Page et al. (2021)

3. FINDINGS

This section presents the findings of our systematic review focusing on the main research gaps we have identified. Accordingly, by screening and evaluating all the papers on the review list, we first recognized that—consistently with the approach we adopted—the

increasing stream of literature on alternative platforms is built upon one main driver: the systematization of platform cooperativism as a form of collective action across a continuum from social movements to more structured organizational forms (Bunders, 2021). Namely, for authors such as Chatterton and Pusey (2020), Cohen (2018), Fuchs (2021, 2022), Nicoli and Paltrinieri (2019), Papadimitropoulos (2021), and Silberman (2016), platform co-ops are examples of alternative governance and ownership structures for digital platforms that offer a possibility to supersede the capitalist enterprise model and transforming it into a common, i.e. a particular institutional and managerial form of economic organization based on the freedom of accessing and collectively governing a common pool resource—in this case, the digital infrastructure (Frischmann, 2012; Fuster Morell, 2014; Hess, 2008; Lewin, 2018; Muldoon, 2022; Ostrom, 2010).

This collective effort can be thus intended as a further step towards affirming a polycentric digital economy—in the spirit of the reflection carried on by authors like Benkler (2006) at the beginning of the millennium about the capacity of “commons-based peer production” (CBPP) experiences, such as the FLOSS (Free Libre and Open-Source Software) projects and the Wikipedia encyclopaedia, of questioning the privatization of the Internet and managing it as a shared infrastructure freely accessible by anyone. Under discussion is indeed also the opportunity to shift from the concept of platform cooperativism to that one of “open cooperativism,” a concept that “argues for a synergy between the common-based peer production movement and elements of the cooperative and solidarity economy movement” (Pazaitis, Kostakis, & Bauwens, 2017: 177), making cooperative not only the front-end but also the back-end of platforms.¹⁰ Coherently, Zygmuntowski (2018) presents multi-

¹⁰ In this sense, there has recently been growing interest in the possible relations between platform cooperatives and Decentralized Autonomous Organizations (DAOs) (Rocas-Royo, 2019). DAOs are blockchain-based participatory data governance and coordination frameworks (Hassan, & De Filippi, 2021) that can help platform co-ops to scale efficiently and decentralize power while simultaneously retaining and expanding features like democratic governance, shared ownership and equitable value

stakeholder platform co-ops as the most democratic and egalitarian counter alternative to the extractive concentrations of power over personal data represented by so-called “netarchist platforms.”

However, grounding the results of our systematic review on this trend related to unorthodox developments in the theory of the firm, our findings confirm the fact that, despite promising premises, scholars usually focus on single stakeholders or consider platform cooperatives only as a “black box” (Coase, 1937; Williamson, 1985) yet miss the analytic assessment of this organizational form’s peculiar characteristics and the different stakeholders’ strategic complementarities. Namely, even if there are contributions dealing with the role of cooperative developers/workers (Bunders, 2021; Cohen, 2018; Kasparian, 2022; Kirsanova et al. 2021; Mannan, & Schneider, 2021; Schneider, 2018), gig workers’ unions (Conaty, Bird, & Ross, 2018; Meira, & Fernandes, 2021; Woodcock, & Graham, 2020), customers and civil society actors (Borkin, 2019; Mannan, & Schneider, 2021; Mayo, 2019; Mello Rose, 2021; Muldoon, 2022; Schneider, 2018; Talonen, Kulmala, & Ruuskanen, 2016; Talonen, Pasanen, & Ruuskanen, 2020), public institutions (Bernardi, & Diamantini, 2020; Calzada, 2020, 2021; Schneider, 2018; Scholz et al., 2021) and academics/activists (Schneider, 2018; Scholz, 2017), the mutual relations among these actors and their distinct but complementary inputs in the value creation process have not been systematically analyzed. We will discuss in-depth these relations in the next section. Table 1, taken by Ryan-Collins et al. (2022) and further elaborated, is a first attempt at developing this framework by summarizing the main actors that can be found in a synergistic platform

distribution, probably one of the main challenges platform cooperatives have to face (Mannan, & Schneider, 2021).

cooperative, the specific role they can mutually play in an extended governance structure, and the relevant literature that has examined them.¹¹

Table 1 – The Different Stakeholders of a Platform Cooperative and Their Roles in an Extended Governance Structure

Stakeholder	Role	Indicative literature
Cooperative developers/workers	Coordinating for collective action and launching platform cooperatives	Bunders (2021), Cohen (2018), Kasparian (2022), Kirsanova et al. (2021), Mannan and Schneider (2021), Schneider (2018), Scholz and Schneider (2017)
Gig workers’ unions	Pushing for worker-friendly legislation and playing a complementary role with platform co-ops	Conaty, Bird, and Ross (2018), Meira and Fernandes (2021), Scholz and Schneider (2017), Woodcock and Graham (2020)
Customers/users and civil society/cooperative actors	Participating in the governance of platform co-ops and helping to solve the capital conundrum	Borkin (2019), Mannan and Schneider (2021), Mayo (2019), Mello Rose (2021), Muldoon (2022), Schneider (2018), Scholz and Schneider (2017), Talonen, Kulmala, and

¹¹ Scholz and Schneider (2017) are cited in every line of the table because their collective volume *Ours to Hack and to Own* represents one of the few real attempts to develop a genuine and comprehensive multi-stakeholder perspective on the study of platform cooperatives. However, this is mostly a non-academic book written for practitioners and for a generalist audience and thus the nodes of the cooperative network and their complementarities are neither critically analyzed nor is there a clear reference to the debate about multi-stakeholder cooperatives within the theory of the firm.

		Ruuskanen (2016), Talonen, Pasanen, and Ruuskanen (2020)
Public institutions at the local, national, and international level	Creating a level playing field, giving citizens back data-sovereignty, adopting sustainable procurement strategies, partnering platforms directly	Bernardi and Diamantini (2020), Calzada (2020, 2021), Schneider (2018), Scholz and Schneider (2017), Scholz et al. (2021)
Academics and activists	Co-designing innovative solutions, disseminating case studies and good practices, and advocating in favour of platform co-ops	Schneider (2018), Scholz (2017), Scholz and Schneider (2017)

Source: Adapted from Ryan-Collins et al. (2022)

4. DISCUSSION OF ROLES AND COMPLEMENTARITIES OF THE IDENTIFIED STAKEHOLDERS

In this section, the findings of the literature review summarized in Table 1 will be analytically discussed. Accordingly, Borkin (2019: 18-19) identifies four membership types that platform co-ops can adopt for mobilizing their different stakeholders and democratically involve them in the platform governance: 1) multi-stakeholder/community platforms¹² (the organizational

¹² In multi-stakeholder platforms, all the users, producers and platform developers are member-owners. For example, Espelt (2020) argues how the implementation of digital platforms in Community Supported Agriculture (CSA) can promote “agroecology presumption” and solve the limitations of CSA in terms of economic sustainability. Furthermore, another interesting example is Resonate (<https://resonate.is/>), a multi-stakeholder cooperative alternative to Spotify born in Germany. Through a unique “stream-to-own” listening model, the original project aimed to directly give back to

model that, as we have stressed, is most consistent with a stakeholder theory approach and, arguably, with the same platform cooperativism idea), 2) producer-led platforms,¹³ 3) consortia/worker platforms¹⁴ and 4) data consortia platforms.¹⁵

What is common among all these membership types is that cooperative developers/workers undoubtedly play a fundamental role (Ryan-Collins et al., 2022). In this regard, Bunders (2021: 192)—who considers only worker-owned platform co-ops but whose insights can be applied even to the other models—examines precisely the case in which gig workers directly act as developers (Kirsanova et al., 2021) and identifies three different tactics they can employ to coordinate themselves and launch a platform cooperative: 1) “creation,” i.e. the construction and organization of a new cooperative “from scratch,” 2) “conversion,” i.e. the mutualization of an existing platform by its users,¹⁶ and 3) “coding,” i.e. the adoption of a platform by an existing cooperative.¹⁷ Furthermore, another possible

artists the value they produce with their music while involving the same artists, listeners, music labels, and workers in the platform governance (Borkin, 2019; Scholz, & Schneider, 2017).

¹³ Producer-led platforms are characterized by autonomous and dispersed producers that sell their products through the platform. E.g., Stocksy United (<https://www.stocksy.com/>) is an online stock photo agency providing royalty-free and high-quality photos while being directly owned and managed by photographers (Borkin, 2019; Scholz, & Schneider, 2017).

¹⁴ In consortia worker platforms, the local dimension and interaction between workers are much more important rather than in producer-led platforms. Foramitti, Varvarousis, and Kallis (2020) have extensively analyzed the case of Fairbnb.coop (<https://fairbnb.coop/>), a worker-owned cooperative legally registered in Italy but rapidly spreading in different cities all around Europe. Its main mission is to provide short-term socially sustainable vacation rentals to tackle the “gentrification” issue posed by the extractive incumbents Airbnb and Booking.com through partnering with local municipalities and giving back part of the revenues to local communities.

¹⁵ Data consortia platforms are a variant of consortia worker platforms centered on the joint ownership and use of data. One of the most paradigmatic examples is undoubtedly MIDATA (<https://www.midata.coop/en/home/>), a Swiss data co-op working in the healthcare sector to balance the power relationship between those who consume personal medical data and the owners of these data. More specifically, thanks to MIDATA, Swiss citizens can voluntarily pool their data in common and organize their conscious release to third parties who can generate social value from them, e.g. through social-impactful medical research (Borkin, 2019; Mòdol, 2019).

¹⁶ This subject has recently been explored by Gonza and Ellerman (2022a, b) who examine how ESOPs (employee stock ownership plans) might be utilized to democratize labor-based platforms. A similar proposal has also been developed by Mannan and Schneider (2021) regarding users in general.

¹⁷ This strategy and its related advantages and challenges have been extensively analyzed by Como et al. (2016), referring to the European landscape. One often-cited example is Smart (<https://smartbe.be/en/>), a Belgian-born cooperative of freelance workers for risk mutualization that

strategy that can be added is the federative one (Cohen, 2018; Mannan, & Schneider, 2021). A good example is CoopCycle.¹⁸ CoopCycle is a French bike-logistic digital infrastructure that gave birth to an international federation of food-delivery cooperatives by letting them use and customize the software in their local contexts (Kasparian, 2022). In this way, the federative strategy allows co-ops to face the cost of building up the platform by promoting the sharing of the same software within a network of independent but affiliated cooperatives and, at the same time, gives the umbrella organization the possibility to monitor the members of the federation and prevent free riding.

Secondly, another aspect whose importance has been stressed in the literature is the complementary effort that platform cooperatives and new inventive unions of gig workers can play in finding a continuum of innovative ways to resist the extractive Silicon Valley business model and ensuring fair working conditions (Meira, & Fernandes, 2021; Ryan-Collins et al., 2022; Woodcock, & Graham, 2020). Digital platforms represent in fact an occasion for both the cooperative sector to advance new forms of economic democracy and trade unions to attract new members, opening the path for untraditional collaborations between them (Conaty, Bird, & Ross, 2018). Therefore, it could even be argued that we are witnessing a sort of convergence of the different strategies played by the cooperative and trade union movements for protecting workers (and other stakeholders) thanks to digital means (Scholz, & Schneider, 2017). In its initial aspiration, the Italian food-delivery platform Consegne Etiche,¹⁹ a cooperative project incubated by the Municipality of Bologna and aiming to help gig workers, shopkeepers, and the local community during the peak of the Covid-19 pandemic, was a great illustration of how self-organized unions of gig workers and

recently adopted a platform for coordinating its activities and contextually opened its services to gig workers (Charles, Ferreras, & Lamine, 2020).

¹⁸ <https://coopcycle.org/en/>

¹⁹ <https://consegnetiche.it/>

platform cooperatives may constructively work together. Indeed, both the spokespersons of Riders Union Bologna and two existing local cooperatives aiming to “code” themselves, i.e. Dynamo and Idee in Movimento, participated together in the initial co-designing process of the service (d’Alena, 2021).

From a multi-stakeholder lens, alongside cooperative developers and workers’ unions, a key role can then be played by customers and, more generally, the larger community of citizens affected by traditional digital platforms’ extractive operations (Ryan-Collins et al, 2022). Indeed, because of their increasingly essential role in society, some scholars have stressed how the people who are impacted by these operations should have a say in how such platforms are concretely organized and work (Muldoon, 2022). That is even more compelling if it is true, as Ritzer (2010) points out, that twenty-first-century consumers are becoming “prosumers.” More specifically, they consume but they are also working for free within digital platforms, producing the primary source of value which those platforms extract and resell: their data (Papadimitropoulos, 2021; Zygmuntowski, 2018). Furthermore, innovative strategies for “Exiting To Community” (Mannan, & Schneider, 2021), such as the involvement of customers through civic crowdfunding initiatives or investment models based on withdrawable community shares (Borkin, 2019; Talonen, Kulmala, & Ruuskanen, 2016; Talonen, Pasanen, & Ruuskanen, 2020), could also offer a solution to the financing issue, one of the main challenges faced by platform cooperatives. Borkin (2019) defines it as the “capital conundrum,” i.e. the main obstacle for scaling platform cooperatives that cannot rely on the same venture capital which sustains their traditional competitors and thus have to substitute traditional investors with community or social-impact ones (Becchetti et al., 2021; Mello Rose, 2021; Schneider, 2018).²⁰

²⁰ In this sense, other institutional actors can play an important role, such as cooperative associations and cooperative banks (Mayo, 2019; Zevi, 1990).

Shifting now from a bottom-up perspective to a top-down one, there is a growing body of literature which also acknowledges the function that international, national, and especially local governments can play as active forces to enable, partner, and pave the way for creating a favorable ecosystem for social innovation based on the collaborative digital economy as well as for reverting surveillance capitalism by giving citizens back their data-sovereignty (Bernardi, & Diamantini, 2020; Calzada, 2021; Schneider, 2018)—where social innovation has been defined as “the development and delivery of new ideas and solutions [...] at different socio-structural levels that intentionally seek to change power relations and improve human capabilities, as well as the process via which these solutions are carried out” (Nicholls, & Ziegler, 2019: 5).²¹ Drawing on a comparison among seven territories (i.e. California, Kerala, Barcelona, Bologna, Berlin, Paris, and Preston), Scholz et al. present twelve strategies that regional and local governments can adopt to actively favor the scaling up of platform cooperatives: 1) mandating procurement policies that sustain platform co-ops, 2) implementing solidarity-oriented loan programs, 3) realizing public participation in multi-stakeholder cooperatives, 4) funding research to identify legal obstacles, 5) offering social benefits specifically to members of platform co-ops, 6) creating a list of public spaces that could be offered for free or at a low cost to platform co-ops, 7) providing public regulation by certifying their organizational status as cooperatives, 8) improving the conditions of platform co-op operations by leveling the playing field, 9) providing platform co-ops with fiscal advantages, 10) funding platform co-op incubators, 11) creating a municipal or national advisory committee, 12) including platform co-ops in the political platforms of parties (2021: 60-63). Irrespective of any judgement about the single measures proposed, this approach is

²¹ An early outline of the process of social innovation has been traced by Mulgan (2006).

particularly important for our framework because it calls directly for public institutions' proactive role as relevant stakeholders themselves.²²

Finally, the double role of Scholz in the development of the platform cooperative global movement as its leading mind and advocate is exemplificative of the possible function that even academics and activists can have (Schneider, 2018; Scholz, 2017). As the director of the Institute for the Cooperative Digital Economy (ICDE) at the New School in New York City, he first framed the research field and now he publishes informative books and several articles on new media for popularizing the idea and organizes and funds annual itinerant conferences, connecting scholars and practitioners from all around the world while disseminating the innovative contributions of selected fellow researchers and asking practitioners to share their experiences and challenges. At the same time, he also leads the Platform Cooperativism Consortium (PCC), an international hub which helps platform co-ops to start, grow, connect, and scale by promoting best practices and innovative design strategies as well as educating developers on platform cooperative values through online courses and tools.²³

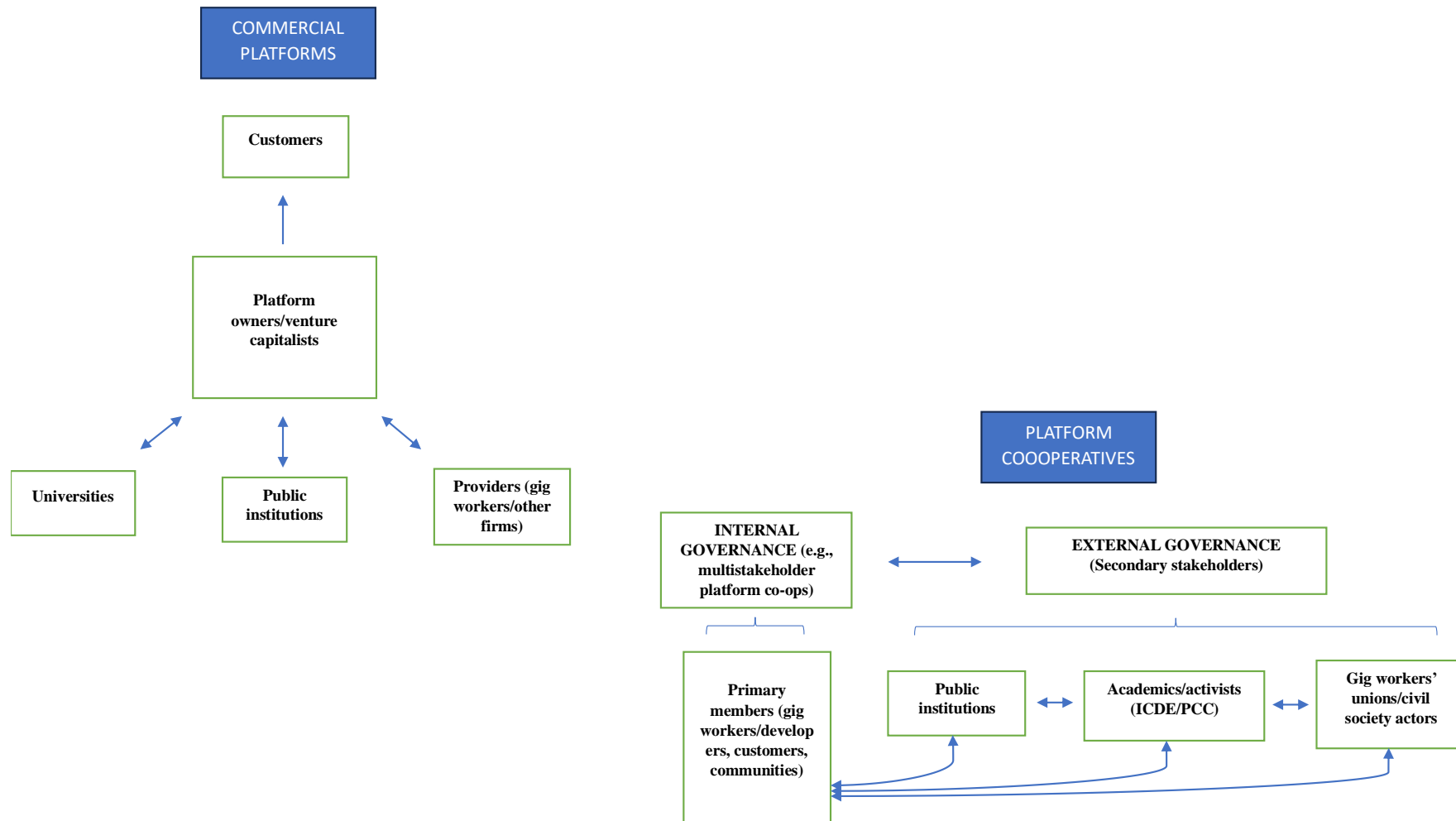
To summarize the discussion of the findings and the possible complementarities between the different stakeholders of an ideal-typical platform co-op, we can now compare the peculiar organizational structures of commercial platforms and platform cooperatives (see Figure 3). Regarding the former, we can appreciate a central hub represented by platform owners and venture capitalists and an array of peripheral actors, such as service providers (both individual independent contractors and other firms acting as suppliers or

²² Recently, Gerli et al. (2024) contributed to the debate about the smart city transition by studying the different possible interactions between grassroots digital innovations (GDIs) initiatives, including platform cooperatives, and local and supralocal mainstream regime actors (such as public institutions, at different levels).

²³ The PCC website, for example, has both an online library, collecting different contributions published on platform cooperatives, and a directory which lists case studies of platform co-ops from all over the world.

complementors), customers, public institutions, and universities (Aoki, 2001, 2011; Jacobides, Cennamo, & Gawer, 2018; Zacharakis, Shepherd & Coombs, 2003). Therefore, even if vertical integration is formally substituted by multilateral dependencies and strategic complementarities, the network in this case remains very asymmetric and open to every kind of abuse by the hands of platform owners (and venture capitalists) who still have residual control rights and can exclude other agents from accessing the platform. On the contrary, regarding the latter, we can appreciate a more horizontal and decentralized organizational structure in which all the primary and secondary stakeholders (Freeman et al., 2010) participate democratically in the value creation process, are rewarded according to their specific investments and, experimenting with a heterarchical form of coordination (Sacchetti, & Tortia, 2015), strengthen consequently the dynamic capabilities and the relational capital of the firm. This solution represents an alternative growth path for platforms, less focused on scaling up and more on building interpersonal networks, federations, and alliances (see also Menzani & Zamagni, 2010). For all these reasons, the related governance structure most capable of balancing the interests of the different stakeholders seems again to be the multi-stakeholder one, which can also contribute in this way to the participatory, collective, and polycentric management of the Internet (Frischmann, 2012; Fuster Morell, 2014; Hess, 2008; Lewin, 2018; Muldoon, 2022; Ostrom, 2010).

Figure 3 – Organizational Peculiarities of Commercial Platforms and Platform Cooperatives



Source: Authors' own elaboration inspired by Aoki (2001, 2011), Jacobides, Cennamo, and Gawer (2018), Zacharakis, Shepherd, and Coombs (2003), Freeman et al. (2010), Sacchetti and Tortia (2015)

5. COMPETITIVE ADVANTAGES AND CHALLENGES OF PLATFORM COOPERATIVES

In conducting our systematic review of the literature, we have acknowledged how platform cooperatives are frequently seen as having many advantages in comparison to commercial platforms—results that we propose to read through the lens of a whole strand of literature analyzing the competitive advantages and behavioral incentives of cooperative networks as compared to capitalist ones (Borzaga, Depedri, & Tortia, 2011; Menzani, & Zamagni, 2010; Novkovic, & Holm, 2012; Sacchetti, & Tortia, 2015; Spear, 2000). At the same time, we know that, under the framework of “governance theory,” mono-stakeholder cooperatives are usually better considered as capable of reducing transaction costs for those who have a stake in the firm (Hansmann, 1996).²⁴ However, we have already argued how there are contexts in which excluding some of the relevant stakeholders from the governance can create costs as well and make abuses of authority and underinvestment more likely (Borzaga, & Sacchetti, 2015; Sacconi, 1999). Therefore, due to the mutual co-essentiality of the different stakeholders’ contributions that we showed in the previous section (Aoki, 2011), we believe that also the theory seems to suggest the potential greater efficiency of the multi-stakeholder governance structure for platform cooperatives, in addition to its ethical preferability from a stakeholder approach point of view (Freeman et al., 2010). Accordingly, this section aims to summarize, discuss, and further analyze what are the possible (dis-)advantages of this model by expanding the insights of Ryan-Collins et al. (2022). Table 2 and Table 3 provide a synthesis of the main competitive advantages and challenges we identified.

²⁴ Governance theory is the theory that assesses the different corporate governance models according to how they distribute rights and responsibilities between all the parties with a stake in the firm in order to reduce transaction costs and protect their interests and specific investments (Aoki, 2001; Belloc, 2021; Hansmann, 1996; Williamson, 2010).

Table 2 – Competitive Advantages of Platform Cooperatives

Indicative Literature	Advantages
Saner, You, and Nguyen (2018)	Stakeholders' greater satisfaction, commitment, and possibility for growth
Calzada (2020)	Greater resilience to external shocks
Borkin (2019)	Lower levels of staff turnover, pay inequality, and absenteeism rates; creators in control, relational models of governance, greater social protection of members
Martin, Upham, and Klapper (2017), Zhu and Marjanovic (2020)	Promotion of social and environmental values and contribution to the SDGs
Salvagni, Grohmann, and Matos (2022), Mannan and Pek (2021)	Advancement of a more inclusive and feminist digital economy, human development promotion in BoP contexts
Belloc (2019), Frenken (2017)	Greater efficiency under certain conditions
Frenken (2017), Mello Rose (2021), Muldoon (2022), Solel (2019), Vlačič and Štromajer (2020)	Local and network embeddedness
Cohen (2018), Kasparian (2022), Mannan and Schneider (2021)	Possibility to pool the technological investment through federative strategies
Bernardi and Diamantini (2020)	Provision of quasi-public services in response to market failures and state crises by partnering with public institutions

Source: Authors' own elaboration

Table 3 – Main Challenges of Platform Cooperatives

Indicative Literature	Challenges
Borkin (2019), Mayo (2019)	Financial, technological, growth, and governance challenges
Bunders and Akkerman (2022), Bunders et al. (2022), Konnova et al. (2021), Sobolev et al. (2021)	Lack of transparency, difficulty in finding institutional support, different stakeholders' commitment as well as willingness to be involved in the co-op governance, free riding problem
Schor (2020)	Niche phenomenon for privileged people
Schor and Vallas (2021), van Doorn (2017)	Technological solutionism and co-op washing
Fuster Morell and Espelt (2018)	Lack of a benchmark for assessing sustainability
Sandoval (2020)	Risk of co-optation by the old logic of digital capitalism

Source: Authors' own elaboration

Starting with the advantages, scholars, relying mostly on qualitative methodologies and case studies, usually focus on the greater satisfaction of platform cooperatives' workers in comparison to those working for other commercial kinds of platforms because of the greater sense of achievement, recognition, and possibility for growth they guarantee them (Saner, You, & Nguyen, 2018), their stronger resilience to external shocks, as the role that platform cooperatives can play in a post-Covid-19 world to improve citizens' well-being testifies (Calzada, 2020), and their lower levels of staff turnover, pay inequality, and absenteeism rates (Borkin, 2019). Furthermore, Borkin also mentions their greater capacity

for “placing creators in control,” their relational models of governance capable of creating higher commitment among stakeholders (and thus greater productivity), and their capacity to protect members by acting as social movements (2019: 21-23). Thus, it can be rightly said that the existing literature is mainly focused on issues related to the greater social (and environmental) sustainability of platform cooperatives.

Accordingly, Martin, Upham, and Klapper (2017) point out how democratically governed platforms contribute to the formation of a more sustainable sharing economy by promoting social and environmental values together with instrumental ones, e.g. by enhancing social equity, limiting the adverse social impacts of platforms, and challenging the widely diffused consumerist culture. Moreover, other scholars (Zhu, & Marjanovic, 2020) have hypothesized that platform cooperatives can contribute to reaching some of the Sustainable Development Goals set by the United Nations, such as “End Poverty” (Goal 1), “Decent Work and Economic Growth” (Goal 8), “Industries, Innovation and Infrastructure” (Goal 9), and “Reduced Inequalities” (Goal 10). Finally, platform co-ops have also been presented as the opportunity to advance a more inclusive, feminist digital economy (Salvagni, Grohmann, & Matos, 2022) and foster sustainable human development in Base-of-the-Pyramid contexts (Mannan, & Pek, 2021).

However, we must acknowledge the almost total absence in the literature of empirical research focused on the economic sustainability of platform cooperatives, not to mention providing quantitative data on their hypothetical greater efficiency or explicitly reconnecting this stream of literature to the traditional theory-of-the-firm debate about the competitive advantages and disadvantages of cooperative firms as compared to capitalist ones. From this perspective, on the one hand, we would have classical scholars such as Alchian and Demsetz (1972) pointing out that Pareto optimal outcomes can be reached only if the residual claimant, i.e. the platform owner, is put in charge of monitoring the other stakeholders and

controlling the firm. On the other hand, we would have authors as Hansmann (1996), Rose-Ackerman (1996), and Spear (2000) stating that more democratic governance models could solve instead the problems related to the presence of information asymmetries, i.e. the possibility that the platform owner perpetrates an abuse of authority and determines inefficient outcomes because of the incentive to opportunistically appropriate the surplus due to the lack of information of other stakeholders, and would be more likely to be sustained by certain ideological entrepreneurs, workers, and customers who value the production of social goods and services because of their intrinsic preferences (reducing the impact of the free riding problem).

One exception to this gap in the literature is a working paper by Belloc (2019) in which the author, directly referencing the governance theory (but adopting a mono-stakeholder point of view), builds an economic model for analyzing the viability of worker-managed (ride-hailing) platform cooperatives. The results prove the potential greater efficiency of platform co-ops when the firm size is sufficiently large not to be impeded by the external capital costs that allow capital-managed firms to pay wage premia to workers, as long as no coordination problems among stakeholders are created and thus group incentive mechanisms which could determine better quality improvements are not compromised. Further elaborating on Belloc's model, it can be argued that, given the network effect issue which requires a certain size and degree of integration for a taxi company in order to be efficient, the municipal level of service provision would be the most viable one for a ride-hailing platform co-op. Indeed, work can be carried out in the taxi market by a homogenous and autonomous workforce with fewer incentives for shirking when it has guaranteed control rights, while algorithmic management facilitates the mutual monitoring of workers without requiring a hyper-sophisticated, globally connected platform thanks to the service's inherently local dimension (see Frenken, 2017).

Accordingly, Frenken stresses the importance of political economies and spatial scales in delineating each of the three scenarios he foresees for the future of the sharing economy: 1) “a capitalist future cumulating in monopolistic super-platforms,” 2) “a state-led future that strengthens regulation in the public interest and shifts taxation from labour to capital,” and 3) “a citizen-led future based on cooperatively owned platforms under democratic control” (2017: 1). As evidenced by the attention of numerous contributions cited in this review on the concepts of local and network embeddedness (Mello Rose, 2021; Muldoon, 2022), platform cooperatives are thus apparently most likely to succeed in niches characterized by a municipal level of service provision, greater accountability, and direct relations between all the stakeholders, such as in the case of ride-hailing or food-delivery platforms (Solel, 2019; Vlačič and Štromajer, 2020)²⁵—leaving open the possibility to federate with other local cooperatives from different regions by pooling the technological investment (Cohen, 2018; Kasparian, 2022; Mannan, & Schneider, 2021). Surely, in these cases, the regulatory intervention of local governments, their inclusion in the co-op governance, and the experimentation of innovative public-private partnerships are made easier by the fact that such platforms are already supposed to abide by the municipal rules, must rely not only on digital but physical public infrastructures to function, such as streets, and can be seen as providing a kind of public utility service to citizens or having some sort of positive social impact (Bernardi, & Diamantini, 2020; Frischmann, 2012; Iossa, & Saussier, 2018; Lewin, 2018). These ideas can be related to what has been defined by Spear (2000) as the “cooperative advantage.” In particular, relative to the advantages that can be determined by the greater ability of cooperatives to effectively respond to market failures and state crises by

²⁵ A concrete example is the New York City-based ride-hailing platform cooperative The Drivers Cooperative (<https://drivers.coop/>).

providing quasi-public goods, mobilize community networks by relying on trust and social capital, and develop connections with public institutions.

Yet, in parallel to these multiple advantages, our systematic review of the literature allowed us to identify even certain weaknesses of platform cooperatives, starting with the already mentioned financing issue, i.e. raising finance to compete with incumbents without the aid of venture capital (Borkin, 2019). Moreover, Borkin (2019), recalled by Mayo (2019), stresses the related technological challenge, since the technological infrastructures of business rivals are frequently extremely sophisticated, the growth challenge, as platform co-ops have to experiment and find unexplored paths to scale because the traditional “growth-before-profits” business model is not an option for them, and the governance challenge, due to platform co-ops’ typical digital orientation, which risks to prevent them from having a locally rooted community. It follows that another possible challenge is the traditional one, already debated many times regarding cooperatives in general and made even more problematic by digital means, i.e. how to democratize the digitalization process, take transparent and collective decisions, and find the needed institutional support to compete while dealing with the risk of free riding determined by the different stakeholders’ interests, level of commitments, as well as willingness to be involved in the co-op governance (Bunders, & Akkerman, 2022; Bunders et al., 2022; Konnova et al., 2021; Sobolev et al., 2021). In this sense, our elaboration on the results of Belloc (2019) and Frenken (2017) about risk reduction for free riding at the municipal level of service provision can be a partial solution to the problem if the right incentives are created and reliable accountability mechanisms are introduced. At the same time, pooling the technological investment by federating with other local co-ops in order to remove the entry barrier related to the cost of the platform can be a good complementary strategy.

Finally, Schor (2020) underlines the risk that platform cooperatives might forget the ideals of the cooperative movement that are supposed to inspire them, then becoming only a niche phenomenon for already privileged rich people. This could also reproduce the same inequalities that threaten the most vulnerable stakeholders in mainstream commercial platforms and mask them behind a sort of “technological solutionism” or “co-op-washing” (Schor, & Vallas, 2021; van Doorn, 2017). In addition, there is confusion about platforms presenting themselves as cooperatives when they are actually motivated only by commercial purposes due to the lack of a clear benchmark for assessing the democratic and sustainability-related qualities of these initiatives (Fuster Morell, & Espelt, 2018). Indeed, as Sandoval (2020) claims, the platform cooperative movement is still shaped by “tensions and contradictions between politics and enterprise, democracy and the market, commons and commercialisation, activism and entrepreneurship.” This is so because “while attempting to challenge precarity and resisting the corporate exploitation of the free labor of workers and Internet users, it simultaneously also strengthens entrepreneurialism and commercialisation” (Sandoval, 2020: 1, 7), creating a risk of co-optation by the old logic of digital capitalism.

Note that for Sandoval (2020) the word “co-optation” represents exactly the risk of assimilation of the platform cooperativism idea by the capitalist system. Namely, since platform cooperatives are still business organizations that compete in the market, she foresees the possibility that, rather than creating social change through the elaboration of a more equitable and democratic alternative to purely commercial platforms, profit can become their main motivational driver and consequently determine a reversal of their organizational structure. This situation is close to what is usually expressed with the concept of “institutional isomorphism” (Di Maggio, & Powell, 1983). Indeed, the literature confirms how cooperatives may start engaging in profit-seeking opportunistic behaviours that are hard to detect for governmental institutions and consumers who continue financing and trusting them

despite their internal degenerative tendencies. But also, that, sometimes, an institutional change can simply result from the fact that their structure makes it difficult to compete with capitalist enterprises in the long-run because of the disincentives to productivity associated with the lack of a central residual claimant and, in certain cases, the high dependency on public institutions (on both points, see Rose-Ackerman, 1996).²⁶

In any case, cooperative researchers have analyzed in-depth the problem of “cooperative degeneration,” i.e. the idea that the growth of a cooperative would necessarily bring to the betrayal of its guiding principles due to market competition with capitalist firms. This can happen for reasons such as external changes in the market that make safety nets less needed and profit-maximizing behaviors more convenient, scaling-up processes that make more difficult the mutual monitoring and cheaper hiring workers instead of including new cooperative members, technological and organizational innovation that reduce the drawbacks of capitalist firms, or, simply, because of a change of preferences of stakeholders themselves (see Ben-Ner, 1988). However, the degeneration hypothesis has often been criticized for being too deterministic, pointing out how growth is not always a synonym for degeneration and how it is not predetermined the necessity of sacrificing democracy to reach economic efficiency. On the contrary, cooperatives have also the possibility to regenerate themselves and readapt their governance structure during their life cycles in order to preserve democracy without renouncing efficiency (Bretos, Errasti, & Marcuello, 2020; Cornforth, 1995; Langmead, 2017; Rosner, 1984; Storey, Basterretxea, & Salaman, 2014). In principle, there is no reason to claim that this cannot be true even for platform cooperatives.

²⁶ The case of Loomio (<https://www.loomio.com/>), an open-source online tool organized cooperatively and aiming to decentralize political power among its users by supporting deliberative processes, clearly shows that trade-offs and boundaries must be constantly renegotiated to keep cooperatives economically sustainable without betraying their inherent social mission (Jackson, & Kuehn, 2016).

6. CONCLUSION

While, in the last few years, a growing amount of academic literature has deemed platform cooperatives to be a more democratic and equitable organizational model for platforms as compared to the commercial one, we have acknowledged in this review how existing contributions on the topic appear fragmented and thus make it difficult to understand the organizational peculiarities and potential of the model itself. Indeed, while concepts such as platform cooperative ecosystem or multi-stakeholder platform are widely used, they have not been presented within the existing debate about cooperative networks and multi-stakeholder cooperatives conducted through the lens of the stakeholder and governance theories. Nor have their competitive (dis-)advantages been properly discussed in comparison to those of capitalist firms. On the contrary, most scholars focus their attention on single stakeholders or just present platform co-ops as a black box, not analyzing mutual and strategic complementarities between the different actors and how they can determine the aforementioned (dis-)advantages.

In light of these gaps, our study systematically reviewed the major works on the topic by applying the framework of the stakeholder theory. In this way, we detailed an extended, decentralized, and heterarchical governance structure for platform cooperatives by evaluating strategic complementarities and interrelationships among different stakeholders in the value creation process. Furthermore, we dedicated a separate section to analyzing the social, environmental, and economic advantages of this innovative governance structure under the framework of governance theory, showing how multi-stakeholder platform cooperatives can indeed be, under certain conditions, capable of combining greater efficiency with equitable outcomes. Notwithstanding, we also pointed out several challenges that platform co-ops face by referencing the traditional literature about the weaknesses of the cooperative model.

Being this one the first comprehensive systematic literature review focused specifically on the platform cooperativism field of research, it aims to offer academics a starting point for studying more in-depth the potential and limitations of this idea and mobilizing consolidated knowledge and strategies to face the challenges that the idea is meeting. At the same time, given the magmatic and interdisciplinary character of the topic, there is certainly considerable space for updating and systematizing our review as new articles are gradually published. Finally, the same methodology can be also applied to study other alternative organizational models in the platform economy and other forms of implementation of new technologies in the cooperative sector (Mannan, 2022) that can contribute, together with platform co-ops, to the process of democratization of the digital economy.

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Appendix A – List of the Papers Included in the Literature Review

(Author, Year)	Name	Type	Journal	Citations
(Acquier, Daudigeos & Pinkse, 2017)	Promises and Paradoxes of the Sharing Economy: An Organizing Framework	Journal Article	Technological Forecasting and Social Change	907
(Belloc, 2019)	Why Isn't Uber Worker-Managed? A Model of Digital Platform Cooperatives	Working Paper	NA	5
(Bernardi & Diamantini, 2020)	The 'Sharing Economy Community' on the Role of Local Government in Promoting, Steering and Governing the Sharing Economy. An Exploratory Study	Journal Article	International Journal of Business and Globalisation	1
(Borkin, 2019)	Platform Co-operatives – Solving the Capital Conundrum	Report	NA	53
(Bunders, 2021)	Gigs of Their Own: Reinventing Worker Cooperativism in the Platform Economy and Its Implications for Collective Action	Book Chapter	NA	6
(Bunders & Akkerman, 2022)	Commitment Issues? Analysing the Effect of Preference Deviation and Social Embeddedness on Member Commitment to Worker Cooperatives in the Gig Economy	Journal Article	Economic and Industrial Democracy	3
(Bunders et al., 2022)	The Feasibility of Platform Cooperatives in the Gig Economy	Journal Article	Journal of Co-operative Organization and Management	23
(Caizada 2020)	Platform and Data Co-Operatives amidst European Pandemic Citizenship	Journal Article	Sustainability	42
(Caizada, 2021)	Data Co-Operatives through Data Sovereignty	Journal Article	Smart Cities	38
(Cansoy et al., 2021)	<i>Homines Diversi</i> : Heterogeneous Earner Behaviors in the Platform Economy	Journal Article	Sociologica	17
(Charles, Ferreras & Lamine, 2020)	A Freelancers' Cooperative as a Case of Democratic Institutional Experimentation for Better Work: A Case Study of SMart-Belgium	Journal Article	Transfer	34
(Chatterton & Pusey, 2020)	Beyond Capitalist Enclosure, Commodification and Alienation: Postcapitalist Praxis as Commons, Social Production and Useful Doing	Journal Article	Progress in Human Geography	111
(Cohen, 2018)	Post-Capitalist Entrepreneurship: Startups for the 99%	Book	NA	28
(Como et al., 2016)	Cooperatives Platform in a European Landscape: An Exploratory Study	Conference Paper	NA	32
(Conaty, Bird & Ross, 2018)	Working Together: Trade Union and Co-operative Innovations for Precarious Workers	Report	NA	13
(Espelt, 2020)	Agroecology Prosumption: The Role of CSA Networks	Journal Article	Journal of Rural Studies	22
(Foramitti, Varvarousis & Kallis, 2020)	Transition within a Transition: How Cooperative Platforms Want to Change the Sharing Economy	Journal Article	Sustainability Science	47
(Frenken, 2017)	Political Economies and Environmental Futures for the Sharing Economy	Journal Article	Philosophical Transactions of the Royal Society A	355
(Fuchs, 2021)	The Digital Commons and the Digital Public Sphere: How to Advance Digital Democracy Today	Journal Article	Westminster Papers in Communication and Culture	54
(Fuchs, 2022)	Digital Capitalism: Media, Communication and Society Volume Three	Book	NA	18
(Fuster Morell & Espelt, 2018)	A Framework for Assessing Democratic Qualities in Collaborative Economy Platforms: Analysis of 10 Cases in Barcelona	Journal Article	Urban Science	32
(Gonza & Ellerman, 2022a)	Turning Platform Workers into Owners: ESOP-type Buyouts of Labour-based Platforms	Journal Article	Teorija in Praksa	1
(Gonza & Ellerman, 2022b)	Using ESOPs to Democratize Labor-based Platforms	Journal Article	Challenge	2
(Grohmann, 2022)	Beyond Platform Cooperativism: Worker-owned Platforms in Brazil	Journal Article	Interactions	2
(Jackson and Kuhen, 2016)	Open Source, Social Activism and 'Necessary Trade-offs' in the Digital Enclosure: A Case Study of Platform Cooperative, Loomio.org	Journal Article	TripleC	32
(Kasparian, 2022)	The Local Implementation of Platform Co-ops in Argentina	Report	NA	4
(Kirsanova et al., 2021)	Platform Cooperativism—A New Model in the Knowledge Economy	Book Chapter	NA	3
(Konova et al., 2021)	Management Problems in Cooperative Platforms and Traditional Cooperatives	Book Chapter	NA	3
(Mannan & Pek, 2021)	Solidarity in the Sharing Economy: The Role of Platform Cooperatives at the Base of the Pyramid	Book Chapter	NA	25
(Mannan & Schneider, 2021)	Exit to Community: Strategies for Multi-Stakeholder Ownership in the Platform Economy	Journal Article	Georgetown Law Technology Review	18
(Mannan, 2022)	Theorizing the Emergence of Platform Cooperativism: Drawing Lessons from Role-set Theory	Journal Article	Ondernemingsrecht Tijdschrift	3
(Martin, Ugham & Klapper, 2017)	Democratizing Platform Governance in the Sharing Economy: An Analytical Framework and Initial Empirical Insights	Journal Article	Journal of Cleaner Production	124
(Mayo, 2019)	Digital Democracy? Options for the International Cooperative Alliance to Advance Platform Coops	Report	NA	3
(Meira & Fernandes, 2021)	The Legal-labour Protection of Service Providers in the Collaborative Economy and Labour Platform Cooperatives	Journal Article	Revista Electrónica de Direito	1
(Mello Rose, 2021)	The Unexpected Persistence of Non-corporate Platforms: The Role of Local and Network Embeddedness	Journal Article	Digital Geography and Society	6
(Mbodo, 2019)	Citizens' Cooperation in the Reuse of Their Personal Data: The Case of Data Cooperatives in Healthcare	Book Chapter	NA	10
(Muldoon, 2022)	Platform Socialism: How to Reclaim our Digital Future from Big Tech	Book	NA	57
(Nicoli & Paltrinieri, 2019)	Platform Cooperativism: Some Notes on the Becoming "Common" of the Firm	Journal Article	South Atlantic Quarterly	7
(Papadimitropoulos, 2021)	Platform Capitalism, Platform Cooperativism, and the Commons	Journal Article	Rethinking Marxism	21
(Rocas-Royo, 2019)	Decentralization as a New Framework for the Sharing Economy	Book Chapter	NA	4
(Ryan-Collins et al., 2022)	Value Creation and Extraction in the Platform Economy: A Comparative Approach	Working Paper	NA	2
(Salvagui, Grohmann & Matos, 2022)	Platform Cooperativism: The Rise of Women-owned Rider Co-operatives in Brazil and Spain	Journal Article	Gender & Development	3
(Sandoval, 2020)	Entrepreneurial Activism? Platform Cooperativism between Subversion and Co-optation	Journal Article	Critical Sociology	89
(Saner, Yiu & Nguyen, 2018)	Platform Cooperatives: The Social and Solidarity Economy and the Future of Work	Conference Paper	NA	16
(Schneider, 2018)	An Internet of Ownership: Democratic Design for the Online Economy	Journal Article	The Sociological Reviews Monographs	92
(Scholz, 2016)	Platform Cooperativism: Challenging the Corporate Sharing Economy	Report	NA	718
(Scholz, 2017)	Overworked and Underpaid: How Workers are Disrupting the Digital Economy	Book	NA	719
(Scholz & Schneider, 2017)	Ours to Hack and to Own: The Rise of Platform Cooperativism, a New Vision for the Future of Work and a Fairer Internet	Book (eds.)	NA	417
(Scholz et al., 2021)	Policies for Cooperative Ownership in the Digital Economy	Report	NA	3
(Schor, 2020)	After the Gig: How the Sharing Economy Got Hijacked and how to Win It Back	Book	NA	216
(Schor & Vallas, 2021)	The Sharing Economy: Rhetoric and Reality	Journal Article	Annual Review of Sociology	66
(Silberman, 2016)	Reading Elinor Ostrom in Silicon Valley: Exploring Institutional Diversity on the Internet	Conference Paper	NA	10
(Sobolev et al., 2021)	Cooperative Platform in the Modern Economy	Book Chapter	NA	1
(Solel, 2019)	If Uber Were a Cooperative: A Democratically Biased Analysis of Platform Economy	Journal Article	Law & Ethics of Human Rights	10
(Talonen, Kulmala & Ruuskanen, 2016)	Co-operative Platforms: Harnessing the Full Potential of Crowdfunding	Conference Paper	NA	3
(Talonen, Pasanen & Ruuskanen, 2020)	Exploring the Co-operative Form's Potential in Crowdfunding: A Non-monetary Perspective	Journal Article	FIB Business Review	4
(van Doorn, 2017)	Platform Labor: On the Gendered and Racialized Exploitation of Low-income Service Work in the 'On-demand' Economy	Journal Article	Information, Communication & Society	752
(Vlačić and Štromajer, 2020)	Taxi Cooperatives as an Alternative to Uber	Journal Article	Lex Localis – Journal of Local Self-government	2
(Woodcock & Graham, 2020)	The Gig Economy: A Critical Introduction	Book	NA	532
(Zhu & Marjanovic, 2020)	How Do Platform Cooperatives Contribute to Sustainable Development Goals?	Conference Paper	NA	5
(Zhu & Marjanovic, 2021)	A Different Kind of Sharing Economy: A Literature Review of Platform Cooperatives	Conference Paper	NA	9
(Zygmuntowski, 2018)	Commoning in the Digital Era: Platform Cooperativism as a Counter to Cognitive Capitalism	Journal Article	Praktyka Teoretyczna	15

Source: Authors' own elaboration inspired by Zhu and Marjanovic (2021)

For consistency reasons all citations are taken from Google Scholar (on 13/09/2023).

**A Better Account of Constitutional Contractarianism Would Imply a
Different Governance of the Sharing Economy: Critical Assessment of
Hielscher, Everding, and Pies’ (2022) “Ordo-responsibility in the Sharing
Economy: A Social Contracts Perspective.”²⁷**

ABSTRACT

This commentary aims to discuss the paper “Ordo-responsibility in the Sharing Economy: A Social Contracts Perspective” (Hielscher, Everding, & Pies, 2022) from a sympathetic viewpoint toward its implementation of a constitutional contractarian approach to business ethics and due consideration of digital platforms as institutions resulting from a social contract. Nevertheless, the commentary also wants to criticize the paper’s interpretation of constitutional contractarian theory and institutional reconstruction of the phenomenon, and thus even the governance structure it is proposed for sharing platforms. The commentary presents another understanding of constitutional contractarianism, referring to both the ex-ante agreement and the ex-post compliance problem. Moreover, it reframes the history of the evolutionary process of institutions’ selection within the domain of the sharing economy consistently with the idea that the Internet should be framed as a common pool resource. In this way, the commentary suggests an alternative governance structure for sharing platforms, i.e. platform cooperatives.

Keywords: sharing economy, constitutional contractarianism, compliance problem, common pool resources, platform cooperatives

²⁷ This is the accepted version of an article, co-authored by Prof. Lorenzo Sacconi and resulting from a genuine collaboration between us, that has been published in green open access in the *Business Ethics Quarterly* after further input from the journal’s editor. The reference is: Ghirlanda, P., & Sacconi, L. 2024. A Better Account of Constitutional Contractarianism Implies a Cooperative Form of Governance of the Sharing Economy: Critical Assessment of Hielscher, Everding, and Pies’ (2022) “Ordo-responsibility in the Sharing Economy: A Social Contracts Perspective.” *Business Ethics Quarterly*: 1–23. DOI:10.1017/beq.2024.8.

The paper “Ordo-responsibility in the Sharing Economy: A Social Contracts Perspective” by Stefan Hielscher, Sebastian Everding, and Ingo Pies (*Business Ethics Quarterly*, July 2022, hereafter: Hielscher et al., 2022 or simply “the paper”) is a significant contribution to the debate on how to regulate and govern sharing markets. We largely appreciate the constitutional/post-constitutional contracts perspective that it applies to business ethics. At the same time, however, we want to raise some concerns in this commentary about both the way the paper understands this theory and how the theory is applied to the sharing economy. In addition, we will try to advance the discussion on this topic a step further by showing how a proper understanding of the constitutional/post-constitutional contracts theory and its development would entail a completely different governance structure for sharing platforms.

The commentary is organized as follows. In the first section, we briefly summarize the main points of Hielscher et al. (2022). In the second one, we outline the plan of the reply. In the third section, we argue why the unilateral solution to the bargaining problem presented in the paper is normatively unjustifiable according to constitutional contractarian developments. In the fourth one, we also demonstrate the intrinsic instability of this solution because of how improbable it is that the stakeholders will fully comply with it. In the fifth section, we criticize the underlying idea that, before the birth of the sharing economy giants, the Internet could be considered as a *res nullius* open to private appropriation. Accordingly, in the sixth and final section, we discuss how the organizational structure of platform cooperatives would be more coherent with a more advanced contractarian theory and reconstruction of the sharing economy itself. The conclusion follows.

1. BRIEF SUMMARY OF HIELSCHER ET AL. (2022)

Hielscher et al. (2022) is built around the question of legitimacy and conditions for the legitimacy of private rule-setting, as observed in the sharing economy (see 2022: 411). Thus,

before critically commenting on this idea, let us show how the paper argues that the private rule-setting of platforms such as Uber and Lyft is indeed legitimate.

From the very beginning, sharing platforms are mainly described as private actors that regulate and govern “a web of markets in which individuals use various forms of compensation to transact the redistribution of and access to resources” (Hielscher et al., 2022: 404; Mair, & Reischauer, 2017: 12). On the contrary, it is just marginally mentioned how they often substantially act as traditional companies hiring their workforce and imposing strict rules on their clientele (Frenken, & Fuenfschilling, 2021). Consequently, for this “quasi-public” (Hielscher et al., 2022: 404) function of market-matching systems and regulators of the consequent transactions emerging, the paper considers it licit to apply James Buchanan’s (1975) constitutional contractarianism legitimacy test. I.e., since these institutions allow stakeholders to gain some kinds of Pareto improvements by creating new markets, it is considered implicit that they could emerge from a hypothetical agreement among them and should be hence assessed as legitimate rule-setters.

Therefore, by applying a Buchanan-like contractarian framework (see also Hielscher, Beckmann, & Pies, 2014), the paper compares the welfare level enjoyed by sharing stakeholders in the previous *status quo* (not a hypothetical state of nature, but the institutional setting existing before the advent of commercial sharing platforms) and the level attained after certain rules established by sharing platforms are agreed upon. In this way, it suggests an equation between these rules and the constitutional and post-constitutional rules that in Buchanan’s constitutional political economy characterize a legitimate state (see Hielscher et al., 2022: 409). This may be seen as a reckless innovation in applying the constitutional

contract apparatus. To be sure, we have instead nothing to object to an extension of the method from State institutions to the domain of corporate law.²⁸

However, the paper almost takes for granted that sharing platforms' rule-setting legitimacy is satisfactorily achieved with any Pareto improvement that stakeholders may gain because of the new regulation. Hence, it can quickly move from the analysis of the conditions for legitimacy to programmatic injunctions about how to improve this feature (see 2022: 418). Namely, the paper claims that, if sharing platforms respect some minimum conditions (see 2022: 414), i.e. guaranteeing exit and voice options to sharing partners (Hirschman, 1970) while staying within the broader constitutional limits imposed by the basic structure of society (limits that can be then strengthened through additional "post-constitutional self-commitments"), they have the right to take upon themselves novel "ordo-responsibilities" (see also Pies, Hielscher, & Beckmann, 2009) and exercise coercive power over other users. Therefore, they can unilaterally change the "rules of the game" for sharing markets, establish a "platform constitution" and, by implementing "constitutional and post-constitutional commitment services" such as Uber's "deactivation policy" or Uber's leasing program, further improve the game payoffs for all the other stakeholders (Hielscher et al., 2022: 415-418).

The reason for this normative position is that the paper does not interpret the institutional setting characterizing the beginnings of the sharing economy, before the birth of private platforms, as a system of emerging social norms in an equilibrium selection process and open to different possible equilibrium outcomes and juridical concretizations. On the contrary, it argues that that time was a sort of Hobbesian "state of nature" suffering from an

²⁸ There is a discussion in the business ethics literature about the opportunity of applying social contract theories and, especially, Rawlsian-like theories to corporate governance. In particular, the discussion is about the legitimacy of including corporate institutions in the basic structure (see Arnold, 2013; Berkey, 2021; Blanc, 2016; Blanc, & Al-Amoudi, 2013; Fia, & Sacconi, 2019; Heath, Moriarty, & Norman, 2010; Mansell, 2013; Néron, 2015; Norman, 2015; Singer, 2015).

“institutional deficit” (2022: 411), i.e. a situation in which the lacking distribution of property rights over the Internet and the high transaction costs of finding reliable sharing partners, building reciprocal trust, and managing potential risks determined violent conflicts, unsecured sharing rights, and, hence, inefficient utilization of resources. Consequently, without the effort of private platforms to bridge that gap through constitutional and post-constitutional rules (see 2022: 412), it would have been impossible to guarantee mutual betterment to all affected stakeholders. All of them would have been losing the opportunities offered by new technologies. Thus, whatever Pareto improvement for sharing stakeholders makes platforms’ regulation legitimate.

Accordingly, Hielscher et al. (2022) also adds a final claim that the newly established sharing constitutions must respect, answering its third fundamental question (see 2022: 406). Namely, to be considered completely legitimate, sharing platforms necessitate conforming to an external “enabling institutional environment” in society established by public and civil actors to assist them in implementing their private regulatory framework (2022: 422). This enabling environment is described as a sort of “meta-constitution for platform constitutions.” However, in the paper’s perspective, the meta-constitution is not intended as the higher level of the constitutional contract that establishes the system of rights and responsibilities that sharing platforms must respect and substantiate at the post-constitutional level. It is just presented as a “second-order” regulatory framework aimed to enhance sharing stakeholders’ exit and voice options by indirectly incentivizing sharing platforms to freely assume some extra commitments (2022: 425).

2. PLAN OF THE REPLY

In our reply, we present the alternative thesis that, even though some suggestions for improving sharing platforms’ rule-setting capacity may be sound, Hielscher et al.’s (2022)

starting point—namely, that the sharing constitution established by these platforms is legitimate—is based on four widely questionable points. In particular, i) as a matter of fact, its empirical reconstruction of the sharing economy is partial because it does not properly stress how digital platforms are, in many cases, “employers” that should be held responsible for the conditions of their “workers” and may become monopolistic actors damaging consumers and third parties in society through invasive surveillance practices and anti-competitive behavior. ii) As a matter of interpretation, its normative reconstruction of constitutional contractarianism is flawed since it does not take into account post-Buchanan developments in the theory—even regarding the application of the constitutional/post-constitutional approach to business ethics—that provided an answer to the question about the fair and rational terms of the agreement that would be achieved in a bargaining game on the constitutional/post-constitutional contracts. A problem that Buchanan left unsolved. Similarly, iii) the paper does not provide any positive analysis of the proposed social contract stability and thus does not explain how it can gain actual compliance—another aspect that was tackled by some relevant contributions developing Buchanan’s theory. Finally, iv) the description of the *status quo ante* of sharing markets, on which the entire argument is based, is not consistent with the evolution of the system of social norms that characterized peer-to-peer digital infrastructures before the advent of the sharing economy giants shifted the equilibrium selection path towards “neo-feudal” private appropriation of the Internet. Consequently, we conclude that the answer to the legitimacy question surrounding the unilateral rule-setting function of private platforms must be negative. However, the commentary also argues that the path conducive to the current situation of sharing markets was not the only possible one. Quite on the contrary, it shows that the cooperative form of platform governance would offer a solution to all the weaknesses of Hielscher et al. (2022).

3. THE BARGAINING PROBLEM: A UNILATERALLY DECIDED PARETO IMPROVEMENT DOES NOT AMOUNT TO A SOCIAL CONTRACT

As anticipated, empirically, one of the main problems of the paper is that it primarily focuses on the idea that sharing platforms are “rule-makers” (Hielscher et al., 2022: 404) of new markets which they create through the matching of providers and users of goods and services thanks to digital means. In this way, however, the paper seems to make two important omissions. On the one hand, it seems to conceal what has been called the “gig economy” (Woodcock, & Graham, 2020), i.e. a highly significant sector within the sharing economy where hierarchical forms of business organizations and extractive practices—such as precarious working conditions, employment misclassification, and risk outsourcing (Bieber, & Moggia, 2021; De Stefano, 2016)—are widely documented. In our opinion, the gig economy, an organizational model that *de facto* hides authority relations behind occasional market relations performed by supposed independent contractors, cannot be forgotten in a fair analysis of the phenomenon. This is especially true since platforms such as Uber and Lyft, always mentioned among gig platforms, are explicitly cited as examples.²⁹ On the other hand, the paper underestimates the increasing perplexities about users’ data extraction, algorithm surveillance, and behavioral manipulation practices of sharing platforms (Johnson, & Acemoglu, 2023; Marciano, Nicita, & Ramello, 2020; Martin, 2015; West, 2019; Zuboff, 2015, 2022) and the threat to fair competition connected with their monopolistic tendencies

²⁹ In the sharing economy literature, there is a debate about the employee/independent contractor’s status of gig workers. Citing in a note the 2020 ballot initiative held in California (the so-called “Proposition 22”), when citizens voted for considering Uber and Lyft’s drivers as independent contractors (see Hielscher et al., 2022: 413), the paper claims that the revealed preferences of sharing stakeholders point to their acceptance of the rule-setting function of sharing platforms (according to which they are independent contractors). However, there is evidence that both companies used their apps to influence clients’ and drivers’ preferences and push them to vote for the independent status of gig workers in the weeks before the consultation, e.g. by threatening longer waiting times, higher prices, and job losses (Hawkins, 2020).

and their increasing privatization of essential infrastructures (Davis, 2022; Khan, 2017; Lindman, Makinen, & Kasanen, 2023).

In a fully consistent way, but from a normative viewpoint, although a constitutional contractarian approach may be the right normative framework for addressing the tasks of regulating and governing sharing markets, we contend that the specific version of the social contract portrayed in the paper risks to justify abuses of authority and thus cannot be accepted in a proper social contracts perspective. In particular, we disagree with the thesis that whatever welfare improvement for sharing stakeholders reached through “Pareto-superior rules” (Hielscher et al., 2022: 410) can legitimize the institution of a regulatory discipline for the sharing economy largely to the advantage of the party in the position of setting the rules. That is at least what would follow from the argument that a tiny (sometimes nearly null) utility improvement for most stakeholders is a sufficient condition for hypothetical agreement among them, even though the supposed agreement would result from a unilateral decision and lead to a sharply unfair outcome distribution.

Indeed, resting on the assumption that whatever Pareto improvement is equivalent to a mutual and rational agreement, Hielscher et al. (2022) transforms what would be supposed to be a bargaining game—wherein the parties converge on some bargaining equilibrium—into a non-cooperative ultimatum game. This assumption clashes with the obvious economic modeling of the constitutional contract according to post-Buchanan developments in social contract theory (Binmore, 1997, 2005; Brock, 1979; Gauthier, 1986; Hampton, 1986) that see it as a bargaining game by which the parties reach a workable agreement within a fairly symmetrical set of feasible payoff distributions (on this point, see also Nash, 1950). Coherently with these developments, in our account of the contractarian argument the Pareto improvement condition is just a necessary but insufficient condition to characterize alone the bargaining solution.

To keep things simple, notice that, if the constitutional contract is seen as the solution of a Nash bargaining game with a symmetrical payoff space, this solution would coincide with an equal splitting of the surplus. But, even if we introduce asymmetries in the payoff space, the solution would always fall on the Pareto frontier point where the product of utilities is maximized so that the utilities' marginal rate of substitution reflects the condition that the utility of one player cannot marginally decrease more than the marginal increase of the other player's utility. This means that, given the convex shape of the bargaining space, it is not possible to largely reduce the utility of a party only in order to induce a small increase in the other's utility, as would necessarily happen with a strongly unilateral bargaining solution. For these reasons, the paper cannot provide any convincing normative argument for explaining why the most unbalanced possible concretization of the hypothetical agreement (like that emerging in an ultimatum game) could be ex-ante preferred over the remaining points on the Pareto frontier of the bargaining space and be understood as a normative model corresponding to the idea of a constitutional contract.

On the contrary, given the possibility of selecting amongst many equally efficient points on the frontier, but entailing very different payoff distributions, a social contract seen as the rational solution of a bargaining game would rule out the option that a party is forced to accept just an infinitesimal part of the surplus. This is not only due to the normative constraints of impersonality and impartiality that are natural elements of the social contract way of reasoning but also follows from the typical condition implicit in any bargaining game, i.e. that the result must be invariant with respect to the exchange of the players' positions. However, that is actually a widespread experience for many low-skilled precarious gig workers who, being extremely dependent on their work and lacking any other alternative in the conventional labor market, often end up accepting whatever conditions platforms set

(Schor, Attwood-Charles, Cansoy, Ladegaard, & Wengronowitz, 2020).³⁰ At the same time, more subtle extractive practices and negative externalities are unilaterally imposed even on consumers and third parties in society due to the same platforms' monetization on the accumulation of big data and monopolization of sharing markets by acting as gatekeepers and exploiting network effects.

In this sense, some scholars speak of “platform capitalism” (Srnicsek, 2017) or “neoliberalism on steroids” (Murillo, Buckland, & Val, 2017). For example, consider the so-called Uber’s “deactivation policy.” The paper, recalling the same arguments made by the platform, presents it as a way to prevent and sanction uncooperative drivers’ strategies in order to protect users (see Hielscher et al., 2022: 419). However, deactivations may also be interpreted as traditional dismissals that the platform can implement without having to pay the costs of firing its employees. By accepting the unilateral role of rule-setters of sharing platforms, the paper risks justifying, beyond the proposed reconstruction of the sharing economy, exactly these outcomes that are obviously unacceptable from a social contract perspective.

Apparently, this is a weakness that can be traced back to Buchanan’s theory. Indeed, because of the mutually destructive equilibrium of its state of nature, Buchanan (1975) claimed there is a mutual advantage in building a private property rights regime. Nevertheless, i) he did not prescribe a univocal theory of distribution since he lacked a proper bargaining theory, leaving many possible alternatives open. Furthermore, ii) he also suggested “salience” (Schelling, 1960) as a reasonable criterion to conjecture what agreement

³⁰ That has to do more with the problem of adaptive preferences, which cannot be, obviously, a normative basis for a legitimate social contract. Namely, it has been extensively demonstrated how inferring autonomous preferences from actual choices is not always possible and how this equation cannot act alone as a proxy for normative legitimacy when it comes to the task of institutional design. Indeed, according to Nussbaum, “habit, fear, low expectations, and unjust background conditions deform people’s choices and even their wishes for their own lives” (2000: 114).

would be achieved by the constitutional contract, in particular by taking as a focal point the pre-social allocation of possession existing before the mutually destructive anarchical interaction started. Namely, being the latter a suboptimal equilibrium because of the reciprocal costs of investments in aggression and defence that the players must face in the state of nature, avoiding such costs and securing each player the initial possession would open the room for mutual advantage and guide to the identification of an agreement.³¹ Therefore, even though there is no basis for inferring equality in Buchanan's theory, there are also no reasons for deducing a seriously unbalanced social contract.

Accordingly, the aforementioned developments of contractarian theory in the following decades recognized how its completion would have required such a bargaining theory.³² From this theory, it can be inferred, *first*, the (macro) constitutional agreement amongst all concerned individuals about the governance principles of economic transactions in general. *Second*, the following (micro) post-constitutional agreement about what

³¹ Quoting Buchanan (1975: 79) on the pre-social allocation vs. the state of nature: "If the direct-production position is Pareto-superior to E, by which we mean only that both parties secure higher utility levels in the former position than in the latter, there may well be a strong attraction toward settling the negotiations at this point."

³² The Nash bargaining theory identifies a unique solution where the product of the players' utility net of the *status quo* is maximized. This is one of the many possible Pareto allocations, but one not extremely biased in favor of any player—otherwise could not maximize the product—and that satisfies an egalitarian property under a symmetric payoff space (Nash, 1950). Brock (1979) modeled Buchanan's constitutional and post-constitutional contracts in terms of two subsequent bargaining and coalitional game solutions. More relevantly, Gauthier (1986), reformulating the Hobbesian tradition of the social contract (the same as Buchanan), modeled the ex-ante agreement as a bargaining game. Thus, in the basic symmetric game, the solution would be identical to the Nash bargaining one but, even accepting some degree of asymmetry in the payoff space, the result would be the point where the surplus is distributed according to the rule of giving each player the maximal equal gain relative to the same player maximum possible claim (see 1986: 143). Finally, no one more than Binmore (1997, 2005) was successful in reformulating the social contract in game-theoretical terms. More specifically, he made clear that, under the veil of ignorance, the problem of equilibrium selection (i.e. the selection of one of the possible equilibria in the "game of life") reduces to a matter of agreement within a symmetric payoff space (the so-called "game of morals") wherein any ex-ante agreement could only coincide with the egalitarian Nash bargaining solution (see 2005: 170-175). Summing up, all the authors resort to a bargaining theory able to single out a unique solution candidate for the social contract and characterized by a certain degree of symmetry of the payoff space. It is noticeable that, in the more sophisticated game-theoretical account of the social contract (i.e. Binmore, 1997, 2005), the Pareto efficiency criterion can be set aside given the main role played by fairness in the equilibrium selection process.

ownership/organizational structure should be given to any economic institution (in this specific case a platform) to translate the agreed rights into practice (see Donaldson, & Dunfee, 1994, 1995; Fia, & Sacconi, 2019; Sacconi, 2006).

Moreover, to account for the self-sustainability that any social contract should satisfy for working as an effective normative foundation for a theory of economic institutions, the more sophisticated developments show that the constitutional contract should be modeled as an equilibrium selection device operating under a “veil of ignorance” (Binmore, 1997, 2005). In this way, the agreement boils down to a bargaining game over a symmetrical payoff space resulting from the intersection of the equilibrium space of the game played in the state of nature and its symmetrical translation operated by exchanging the players’ positions. That would identify the subset of equilibrium outcomes that satisfies the requisites of impersonality and impartiality. Then, by applying bargaining theory within this subset, it would be possible for the parties to select a unique and mutually acceptable agreement on the Pareto frontier. But notably, within such a subset – which is also symmetrical – the equilibrium solution needs to be the egalitarian Nash bargaining one (see Binmore, 2005: 175; see also Sacconi, 2011). Hence, as an implication, we may confirm that the parties in the contract would not be satisfied with whatever unilaterally selected Pareto improvement. They would instead require the respect of their equal rights obtained at the constitutional contract level to enter the post-constitutional agreement on the governance rules for sharing platforms.

4. THE COMPLIANCE PROBLEM: HOW NOT TO MAKE A NORMATIVE THEORY OF ECONOMIC INSTITUTIONS UTOPIAN

In this section, we focus on the problem of ex-post compliance with regulations based on the social contract. Namely, the necessity of proving that the contract is self-sustainable not only against the test of ex-ante acceptance based on impartial and impersonal reasons

(justification) but also the ex-post persistence test when stakeholders' behavior reflects the complexity of their motivations (including self-interest and personal/collective attitudes). In this sense, we intend a normative theory “non-utopian” or “realistically utopian” (Nagel, 1986; Rawls, 1999; see also the distinction between “internal” and “external” rationality in Gauthier, 1986).

Accordingly, we will show that Hielscher et al. (2022) also fails to secure the stability of the recommended private regulation of the sharing economy because it underestimates the compliance problem and ignores its possible solutions. Namely, due to the underlying *prisoner's dilemma* structure of the state of nature, the absence of any true external sanctioning authority and the contemporaneous lack of any stakeholders' joint commitment resulting from a proper deliberative process, the contractors would have an individual incentive to defect ex-post from the paper's proposed sharing constitution. Hence, missing the equilibrium property of the constitutional agreement (a property that we have introduced at the end of the previous section), the entire construction of the paper would turn out to be unstable. This weakness is again a legacy deriving from Buchanan's theory, and the same authors partially recognize it in the text (see 2022: 429-430). Indeed, if the state of nature is a mutually destructive *prisoner's dilemma*, as it is assumed, and even the compliance problem is a *prisoner's dilemma*, the contractors' psychology would be inherently self-interested and the only equilibrium solution (in dominant strategies) would be defection. This point was clearly seen by those who worked within the social contract tradition through the lens of game theory (Binmore, 1997, 2005; Gauthier, 1986; Hampton, 1986; Skyrms, 2003).

Therefore, lacking the equilibrium property, the platform constitution that Hielscher et al. (2022) proposes would not have the strength required for becoming an equilibrium institution in Masahiko Aoki's sense of the term—i.e. “a self-sustaining system of shared beliefs about a salient way in which the game is repeatedly played” (Aoki, 2001:10)—and be

capable of bridging the governance gap of sharing markets. Note that Aoki's definition of institution is *per se* just a descriptive concept stressing that the stability of an institution requires a regularity of behavior in which the players' actions are reciprocally optimal strategies and are sustained by a summary and shared mental representation of the equilibrium itself. However, such an equilibrium institution can only be achieved dynamically through an equilibrium selection process and normative mental models play an essential role in identifying the initial conditions of this process. In particular, the social contract reasoning can trigger the process by putting the players' attempts of outguessing the reciprocal strategies on the path along which mutual predictions will converge on a mental representation of the game solution having the distributive property of a fair bargaining solution (see, on this point, Binmore, 2005; Sacconi, 2013). In this way, the social contract legitimizes the system of shared beliefs and supports the achievement of an equilibrium institution.

As we further argue in the next section, that's the reason why the instability of Hielscher et al. (2022) proposed sharing constitution is empirically proved by recent court decisions and growing supranational, national, and local rules enacted in many countries for regulating and constraining the activities of private platforms (from antitrust to privacy, tort, and labor law). Namely, these legal facts are exemplifications of normative mental models shared in society that affect the equilibrium selection process by reminding the players of the terms of a fair social contract that do not confirm the unilateral outcome based on private rule-setting (see Basu, 2018 on the role of the law as the focal point of institutional equilibrium selection processes).

From what we know, within the theory of the social contract based on some version of economic modeling (so following the line started by Buchanan), the compliance problem could have been faced instead by Hielscher et al. (2022) in two different (but not

incompatible) ways. The first one is the solution of Binmore presented at the end of the previous section, i.e. formalizing the issue of self-sustainability of the social contract as an ex-ante equilibrium selection problem with a multiplicity of possible equilibria played behind the veil (see 2005: 4). But in this case, as we have seen, admitting that the social contract can be an equilibrium, it can only be egalitarian. This result clashes with the institutional arrangement defended by the paper once we realize that it includes a sector like the gig economy and justifies sharing platforms' algorithmic surveillance and monopolistic tendencies. In fact, these equilibria would never be included in the symmetrical subset of the ex-ante acceptable solutions and selected as a fair social contract.³³

The second way out of the compliance trap is to hypothesize that the fair agreement on an ethical norm of behavior may activate endogenously a variation in beliefs and preferences, so that, under the condition of reciprocal expectations of conformity, the participants in the ex-ante agreement also prefer to comply ex-post with the principles of the agreement itself, i.e. develop conformity preferences. These preferences would make the social contract stable even if compliance would not have been the participants' preferred behavior without the agreement. The topic of social preferences based on mutual expectations is not new in behavioral game theory (Rabin, 1993), the theory of social norms (Bicchieri,

³³ An anonymous reviewer pointed out that identifying the constitutional contract with a more extended set of socio-economic rights beyond the simple requisite of Pareto optimality could be criticized as overly rigid and paternalistic and betray Mill's "Harm principle." However, this criticism does not hold for our constitutional contractarian theory because, in this case, constitutional constraints would not be derived from an external idea of justice or exogenously imposed but would endogenously result from an impartial and mutually advantageous agreement which also owns the equilibrium property. Moreover, Mill himself does not even recognize trade as a field of application of his harm principle since trade is an inherently social activity where externalities are always produced, out of the myth of perfect competition, at least because in deciding to exchange something with someone we implicitly refuse to exchange the same thing with someone else (see *On Liberty*, ch. 5). Thus, the system of economic liberties cannot be based on the absence of externalities but on its functionality to the perfectionist view of utilitarianism, based on Mill's reading of von Humbolt's view of human flourishing (Grillo, 2023). Accordingly, Mill can be interpreted as a proponent of a partially positive conception of liberty (surely not libertarian) founded on the establishment of an institutional setting tailored to guarantee individual opportunities for free and autonomous realization.

2005), public choice, and business ethics. Among the possible options, the one we consider here is based on the link between pro-social individual preferences and the impartial agreement on the constitution of economic organizations (Grimalda, & Sacconi, 2005; Sacconi 2007), a connection that has already been tested even through laboratory experiments (Degli Antoni, Faillo, Francés-Gómez, & Sacconi, 2022; Faillo, Ottone, & Sacconi, 2015; Sacconi, & Faillo, 2010).³⁴

Actually, “conformity preferences” is just another term (with the addition of a game theoretical model) for what Rawls calls the “sense of justice” (Rawls, 1971, 2001; Sacconi, & Faillo, 2010). Indeed, for Rawls, the “sense of justice” is exactly an attitude of compliance with impartially agreed-upon principles based on the reciprocal expectation of conformity—these principles not being *prima facie* equilibria. Game theoretically, it corresponds to the activation of preferences that ex-post modify the payoff structure of the compliance game so that the resulting “psychological game” (a game in which players are characterized not just by material payoffs but also by “psychological payoffs” depending on their mutual beliefs about conformity) offers equilibrium points to the players’ interaction that could not exist in

³⁴ The general idea behind all these experiments is quite similar. Namely, the participants are first asked to choose a rule of distribution of a common endowment without knowing their ex-post positions in the experimental setting (some of them will be lucky active players, some others just unlucky passive recipients), mimicking in the lab the veil of ignorance. What can be observed here is that most participants reach an agreement on an egalitarian rule. Then, the veil is lifted, and the participants learn about their roles in the game so that they have the concrete opportunity to make ex-post individual choices to implement the distributive rule or defect from it. Even if there is no monetary incentive in this ex-post game to comply with the agreement, quite a large majority of them decide to comply. Moreover, a no-veil treatment, where the participants do not participate in a pre-play communication stage and hence directly select a division, is compared with the treatment in which they play, first, the pre-play communication game with agreement and, second, the ex-post division game beyond the veil. Consistently with the theory of conformity preferences, the comparison of the two treatments shows that participants in the first group are moved only by egoistic rational preferences and take all the surplus for themselves. On the contrary, in the second group, participants tend to respect the previously agreed-upon rules and share the surplus even if they are not forced to do so. Furthermore, those who show this behavior—before apprehending their final payoffs—also report beliefs of mutual compliance. Given that this happens in a controlled experimental setting, the experimenters concluded that these results can only be explained by an endogenous activation of a disposition to conform with fair agreements conditional on the similar endogenous formation of conformity expectations.

the original game only based on material payoffs.³⁵ Therefore, activation of conformity preferences (or the sense of justice) would incentivize the parties endogenously to conform ex-post with what they have jointly accepted ex-ante, even if this, individually, would not be convenient.

Finally, note that this model, like most social preference theories, also attaches additional motivational weight to strategic choices that not only respect the ex-ante agreement but deny other parties the possibility of deviating from it by intrinsically remunerating sanctioning. In our case, this would induce psychological payoffs for rejecting cooperation with a company that only minimally offers its stakeholders the benefits of their cooperation while appropriating much of the surplus. The recent forms of collective action that have characterized the sharing economy in the last few years, such as gig workers' strikes and consumers' boycotts, point exactly in this direction (Bunders, 2021; Lehdonvirta, 2022; Woodcock, & Graham, 2020).

5. THE INSTITUTIONAL PROBLEM: THE INTERNET OF THE BEGINNINGS WASN'T

A *RES NULLIUS* BUT A SHARED INFRASTRUCTURE

Since Hielscher et al.'s (2022) version of the social contract is founded on a Hobbesian "state of nature" view of the Internet's *status quo ante*, the paper can argue that the unilateral rule-setting function of private platforms solved this inefficiency for the first time (see 2022: 412).

Hence, admitting that the previous critical points were not stringent enough, this interpretation would still justify the emergence of corporate governance institutions as the

³⁵ Quoting directly from Rawls (1999: 44), when an agreement reached through an *overlapping consensus* "is honored by peoples over a certain period of time, with the evident intention to comply, and these intentions are mutually recognized, these peoples tend to develop mutual trust and confidence in one another. Moreover, peoples see those norms as advantageous for themselves and for those they care for, and therefore as time goes on they tend to accept that law as an ideal of conduct. Without such a psychological process [...] the idea of realistic Utopia [...] lacks an essential element."

outcome of an implicit social contract putting an end to that mutually destructive state of nature. Nevertheless, we also suggest that the proper framing of the *status quo* is different. Namely, the Internet of the beginnings has been more appropriately framed as a shared infrastructure characterized by non-excludability and only partial rivalry (Benkler, 2006; Frischmann, 2005, 2012; Fuster Morell, 2014; Hess, 2008; Kostakis, & Bauwens, 2014; Schultze, & Whitt, 2016).

In particular, Frischmann (2012: 3) describes shared infrastructures as a set of resources “made by humans for public consumption” and defined in terms of how they create value for their users, i.e. through free downstream productive activities that generate positive spillovers. Therefore, in accordance with these features and because of its non-excludable and (partially) rival character—two points that rule out both the possibility of centrally controlling and partitioning it—the shared infrastructure of the Internet boils down to a subspecies of Ostrom’s (1990) common pool resources that can be governed, at least to some extent, by an evolving apparatus of collectively decided and self-sustaining rules. More specifically, Frischmann (2012: 320) qualifies the Internet as a complex and multi-layered conglomeration of different infrastructure resources intertwined with each other.

Accordingly, at the macro level, there is a congestible physical infrastructure—characterized by an interconnection of telecommunication, cable, server, and satellite networks—and a non-excludable logical infrastructure, i.e. the standards and protocols that facilitate the transmission of data across networks. Then, there are different applications running on this layer, such as social media platforms, online marketplaces, sharing platforms, and so on. Finally, there are the information, communication, content, and services that the users exchange through platforms and the social relations they create in doing that.

Coherently with this way of framing the Internet, a self-sustaining and collaborative alternative system of social norms and property rights, represented by still-existing and

successful experiences such as the FLOSS (Free/Libre/Open Source Software) and the Wikipedia encyclopaedia, was effectively developing at the outset for governing this common pool resource as a common. According to the first enthusiastic reactions that it produced related to the promise of disintermediating and democratizing economic exchanges of goods and services among peers—ideally in the form of idle assets, time, or skills (see Botsman, & Rogers, 2010)—we can think of the early sharing economy as part of this narration. However, at least for the sharing economy’s sector, these emerging norms were not yet in a state of stable equilibrium reinforced by mutual expectations and shared mental models supporting them (Denzau, & North, 1994) and were not concretized in any juridically recognized institution. On the contrary, they were just one of the different possible frames that were competing for saliency, among the traditional ones of private ownership—sometimes specified into club ownership—and state control. Thus, the early experiments of sharing platforms were still replaceable through an exogenous change of the initial conditions, determining a shift in the focal point of the equilibrium selection dynamic (recall Aoki’s definition of institutions).

In our interpretation, such a shift was provided by the venture-capital-backed Big Techs such as Uber and Lyft that, profiting from the existing legal vacuum, “enclosed” the Internet (or a portion of it) through the creation of capitalistic and legalistic private monopolies over a previously shared and open-source asset (Lehdonvirta, 2022; Muldoon, 2022). Namely, the entry of several venture capitalists on the board of directors of the leading sharing start-ups determined the triumph of the for-profit mentality and shifted the equilibrium selection path towards the de facto reaffirmation of the hierarchical integration and economies of scale models typical of traditional capitalist companies (Frenken, & Fuenfschilling, 2021; Srnicek, 2017). This is also the thesis developed by Pistor (2019) about the capacity of private lawyers—informed by neoliberal culture—in designing new contracts

and new property rights regimes over resources still not completely regulated and formerly accessible as shared resources and then mobilizing strategic and cognitive assets to impose and defend their private/exclusive appropriation.

Accordingly, someone has sustained that, behind the whole rhetoric of the sharing economy, “business as usual” soon reemerged and the same term “sharing economy” is now used only as a marketing expedient to cover outcomes that have nothing to do with the concept of sharing (Ravenelle, 2017). The story, however, did not end there, and many legal facts show that not even the institutionalization process of the self-regulated capitalist governance of the sharing economy has reached a stable state of equilibrium. On the contrary, new regulations and court decisions seeking to constrain the activities of sharing platforms, such as the 2017 sentence of the European Court of Justice which first framed Uber as a transport company instead of a technological market-matching system (European Court of Justice, 2017), are the proof that their unilateral authority is not accepted by all the affected stakeholders (who, from a social contracts viewpoint, would prefer a more equitable point on the Pareto frontier). Ironically, the paper considers these legal facts as dysfunctional regulatory acts that only reduce stakeholders’ opportunities for mutual betterment (see Hielscher et al., 2022: 424) rather than evidence that the regulatory system that emerged through private appropriation is unstable because of its inherent unfairness and the availability of fairer institutional arrangements along the frontier.

Consequently, from the lens of a different framing of the status quo, the juridical structure characterizing the governance as commons (Ostrom, 1990) could not be the problem but rather the solution to an only apparent institutional void and capable of avoiding the current concentrations of power with dubious legitimacy that characterize sharing markets. Indeed, instead of creating an unbalanced and radically unstable outcome, governing platforms as commons (and not as a state, club, or private goods) could effectively produce a

self-sustainable and equitable Pareto improvement, determining positive spillovers for all the sharing stakeholders coherently with the idea of the “comedy of the commons” (Frischmann, 2005, 2012).³⁶

Now, a peculiarity of sharing platforms is that they are organizations where the transaction of goods and services, even if enabled online by large tech companies, often takes place offline between people who can physically meet (think, for instance, to the ride-hailing sector) and who are in principle oriented by some kinds of pro-social motivations (Schor, 2014). For this reason, the most consistent experience with the proposed alternative way of looking at the Internet is arguably the organizational model known as “platform cooperativism” (Nicoli, & Paltrinieri, 2019; Scholz, & Schneider, 2017). In fact, the idea of platform cooperatives consists of an attempt of “cloning or creatively altering the technological heart of the sharing economy” (Scholz, 2017: 174) and implementing the traditional cooperative principles of democratic governance and shared ownership by involving the relevant stakeholders in the property and control structures of digital platforms (see also Foramitti, Varvarousis, & Kallis, 2020; Schneider, 2018).

Hence, on the one hand, platform cooperatives would respect the definition of infrastructure given above and avoid the private appropriation of the positive spillovers produced by their users, while the possibility of sharing the technology within a network of federated local cooperatives offers an alternative growth strategy to the building of big monopolistic giants (see Kostakis, & Bauwens, 2014 on the “global commons” scenario; Mannan, & Schneider, 2021; Scholz, 2023: 59). On the other hand, the potential criticism regarding their feasibility related to the difficulty of making possible the interaction between

³⁶ The concept of the “comedy of the commons” was coined for the first time by Rose (1986) as a response to Hardin’s (1968) famous “tragedy of the commons.” What the former argues is that, in some cases, leaving resources open to public access, instead of generating waste and inefficient underutilization, may determine positive externalities for the affected communities and the emergence of spontaneous self-regulation.

dispersed individuals (Bunders, Arets, Frenken, & De Moor, 2022) could be solved thanks to the peculiar features of sharing markets themselves, i.e. usually, local scale of service provision and fairly homogenous stakeholders. Indeed, following the governance theory, these features could guarantee the viability of the platform cooperative solution by fostering mutual trust (Spear, 2000), engendering motivations based on ideological commitments (Rose-Ackerman, 1996), and reducing transaction costs involved with bargaining (Hansmann, 1996). At the same time, the intermediation of digital technology potentially makes even easier their success as compared to traditional cooperatives by facilitating the detection of free riders (Belloc, 2019).

6. DISCUSSION: HOW PLATFORM COOPERATIVES CAN SOLVE THE IDENTIFIED WEAKNESSES AND ADDRESS CRITICISMS

Drawing the appropriate conclusion from the more nuanced constitutional contractarian theory presented in this commentary, the purpose of this section is to discuss how the institutional alternative of platform cooperatives can address all the problems of Hielscher et al. (2022). In short, platform cooperatives can be seen as i) the most legitimate organizational structure for substantiating the regulation of sharing markets hypothetically bargained at the constitutional level in line with the effective reality of the sharing economy, ii) providing incentives and motivations consistent with its endogenous self-sustainability, and iii) proving to be more coherent with the idea of a Pareto improvement from an ex-ante status quo representing the nature of the Internet as shared infrastructure.

Let's start by hypothetically involving all the relevant stakeholders (see Freeman, Harrison, Wicks, Parmar, & De Colle, 2010) in the impersonal and impartial collective ex-ante bargaining of the platform constitution and let's assume that their agreement concludes that platforms have to be treated as commons. Their constitutive social contract would require

recognizing to all the ideally contracting stakeholders freedom of access and participatory rights, the limited list of property rights compatible with the notion of collective ownership of a common pool resource (see Schlager, & Ostrom, 1992), and would give them the entitlements enabling the establishment of the most effective governance structure to realize these rights.

Coherently with the idea of an emerging social norm legally actualizable in different possible ways by a local social contract, many options are open for detailing this governance structure. Among these options, multi-stakeholder platform cooperatives would be the most natural candidate.³⁷ Indeed, multi-stakeholder cooperative arrangements would symmetrically satisfy the quest for fairness created by the social contract procedure and hence generate mutual expectations for conformity with their democratic rules. Conformity preferences (or the sense of justice) would be thus elicited and stabilize these arrangements ex-post. And finally, from an institutionalist point of view, they would also be coherent with the original representation of the Internet as a multi-layered common pool resource thanks to their inherent feature of giving a say in the governance at different levels to all their stakeholders (see again Mannan, & Schneider, 2021).³⁸

However, assuming Hielscher et al.'s (2022) perspective, companies such as The Drivers Cooperative³⁹, a New York City-based ride-hailing platform cooperative with a multi-stakeholder inspiration, could be still criticized for their apparent incapacity to guarantee the same win-win-win(-win) opportunities to platform owners, directly involved stakeholders (both consumers and service providers), and indirectly involved third parties as

³⁷ To delve into the main differences between multi-stakeholder cooperatives and traditional single-stakeholder ones and look at examples of multi-stakeholder models in practice, we suggest looking at Birchall and Sacchetti (2017).

³⁸ Interestingly, some steps towards the juridical recognition of platform and data cooperatives have been recently made by the OECD (2023), the European Economic and Social Committee (2021), and the European Parliament together with the Council (2022).

³⁹ <https://drivers.coop/>

compared to their commercial competitors. Indeed, after having stated the equal legitimacy of commercial platforms and platform cooperatives from a social contracts perspective, Hielscher et al. (2022) claim that commercial platforms are in the end preferable. Namely, according to the paper, commercial platforms offer stronger exit options to sharing partners and thus a superior possibility of mutual betterment because they are more ready to face market competition and capable of continuously innovating themselves to match the evolution of their users' expectations (see 2022: 428-429).

We believe that even this point is misleading because, in the long run, it is difficult to sustain that the current business model of the sharing economy is going to produce the promised win-win-win(-win) outcomes and consequently offer a true competitive advantage to its different stakeholders (see 2022: 416). First, commercial platforms are not currently creating any real profit for their investors and owners. On the contrary, their business model, i.e. "growth before profits," seems to consist only of reinvesting all their earnings in disrupting competitors with the aim of a future dividend distribution that has yet to be achieved. Uber is again an emblematic example. In the meantime, venture capitalists are instead losing and not gaining any money (Isaac, 2019). Secondly, if we intend the directly involved stakeholders as consumers, it is logical to imagine that, if sharing platforms finally do achieve their aspired monopolistic position, this will also lead to a rise in prices and a reduction of benefits for consumers themselves (Khan, 2017). Moreover, some scholars have even stressed how twenty-first-century consumers are becoming "prosumers" (Ritzer, 2010), invisible workers who, while consuming, produce information and data that will be used by unaccountable platforms to influence their choices and create lock-in effects without paying them for those data (Marciano, Nicita, & Ramello, 2020; Martin, 2015; Zuboff, 2015). If, instead, we intend the directly involved stakeholders as service providers, i.e. gig workers, we have already assessed how commercial platforms are reintroducing hierarchical

organizational forms typical of traditional capitalist enterprises that often deprive their working conditions (Frenken, & Fuenfschilling, 2021; Srnicek, 2017). Finally, they also seem to produce negative externalities for third parties in society by accelerating the transition to a labor market characterized by precarious jobs and making the whole economy less sustainable, innovative, and inclusive in the long run while disenfranchising people from the control of essential infrastructures of their daily lives (Crouch, 2019; Davis, 2022; Johnson, & Acemoglu, 2023; Khan, 2017; Lindman, Makinen, & Kasanen, 2023; West, 2017; Zuboff, 2022).⁴⁰

Oppositely, a cooperative platform such as The Drivers Cooperative takes a smaller commission than Lyft or Uber, pays its workers a guaranteed hourly wage of \$30/hr (almost twice NYC's minimum wage), aims to redistribute profits among members in the form of dividends, lets them participate in the governance of the company (even for what regards data and algorithmic management), shares relevant information with all the stakeholders, addresses traditional concerns such as predatory loan rates and surprise deactivations, and fights precariousness. Moreover, it also charges clients a lower fare, wants to have a positive social impact by enhancing service quality for people with disabilities (being a leading provider in New York City in the niche of accessible social mobility thanks to specific subcontractor agreements with paratransit brokers operating for the Metropolitan Transportation Authority), and is finally planning to share its driver-owned platform, created from scratch thanks to a partnership with Google, with federated platform co-ops from all

⁴⁰ To continue with the example of the ride-hailing sector, the municipality of NYC is at the forefront for what regards its regulation and aims to put a stop to all these problems (New York City Taxi and Limousine Commission, 2019). We thank Mr. David Do, Commissioner Chair of the NYC TLC, for discussing with us the regulatory approach of the current commission. In particular, the main pillars of its action consist of subjecting all drivers to the ownership of a license, fixing a drivers' pay wall, customers' protection rules, special measures for guaranteeing the presence of wheelchair-accessible vehicles, and anti-congestion regulations, and asking all platforms operating in the city for disclosure of the data regarding the management of the service because of its inherently public interest.

over the world in order to scale as its corporate competitors—starting from another ride-hailing platform that will be launched in Denver in 2024 (Conger, 2021; The Drivers Cooperative, 2023).⁴¹

7. CONCLUSION

This commentary was born out of the recognition of the significant contribution that Hielscher et al. (2022) brought to the debate about what the most appropriate regulation for sharing markets should be. We began by agreeing on the idea of considering digital platforms as institutions that may result from a social contract and assessing their legitimacy according to the benefits that they produce for the sharing stakeholders. Nevertheless, in the paper, we found some weaknesses that risk contradicting the promise of developing a constitutional and post-constitutional approach to the regulation and governance of the sharing economy within the domain of business ethics. These weaknesses seem to depend on a misunderstanding of the constitutional contractarian theory and the institutional phenomenon of the sharing economy itself. Therefore, intending to revitalize its original spirit, we suggested an alternative version of the social contract and claimed that the most appropriate organizational form for substantiating this proposal would be that of platform cooperatives instead of extractive commercial platforms.

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⁴¹ We thank Mr. Ken Lewis, one of the founders of The Drivers Cooperative, for discussing with us this innovative experience.

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**Normatively Justifying the Cooperative Governance of the Sharing
Economy: A Multi-level Social Contract Informed by the Capability
Approach.⁴²**

ABSTRACT

This article aims to constructively contribute to the important issue of how to govern digital platforms in order to reduce their potentially disruptive effects without renouncing the many advantages they can offer to a wide group of stakeholders. The case of sharing platforms is considered, and the alternative of platform cooperatives is analyzed, namely, platforms owned and managed by their workers and users. The contribution consists of the development of a normative justification for this alternative governance model. To reach this scope, a theoretical framework inspired by Rawlsian contractualism is adopted, but two specifications are added. First, the article proposes an infrastructural account of the basic structure and, considering the Internet as a multi-layered infrastructure characterized by non-excludability and only partial rivalry, claims that the rules governing digital platforms directly enter such an extended basic structure and should be modeled according to the principles of the commons to allow the production of shared value. Second, it argues that the metric of justice chosen for informing the social contract generating these rules should be the Senian notion of capabilities, instead of Rawlsian primary goods. Building on these two premises, the normative framework of a multi-level social contract informed by the capability approach is proposed for concretely guiding the design of more equitable governance structures for digital platforms. Platform co-ops are hence presented as the most coherent organizational model for substantiating this contract in the sharing economy domain. Finally, the case study

⁴² This is a single-authored and unpublished article. I presented a previous version of this article at the 2023 SIDE Conference, held at the University of Brescia from 13-15 December.

of the cooperative platform CoopCycle is introduced as an empirical benchmark to assess the meaningfulness and plausibility of the proposal.

Keywords: constitutional contract, basic structure, shared infrastructures, governance as commons, capability approach, Internet, digital platforms, sharing economy, platform cooperativism, CoopCycle

After the turn of the millennium, one major technological transformation has affected how jobs and industries are organized in modern societies, i.e. the adoption of digital platforms to distribute work, disintermediate the matching of demand and supply, and facilitate horizontal exchanges of goods and services (Warhurst et al., 2019). In particular, the advent of the first “sharing platforms” was welcomed as the harbinger of a process of democratization of the entire economic system based on the sharing of idle assets among peers in order to tackle overconsumption and extreme market inequalities (Schor, 2014). However, despite the original ideals, this view was soon eclipsed by the affirmation of the VC-backed Silicon Valley giants that outcompeted the incumbents, monopolized digital markets, and radicalized some of the most problematic practices of traditional capitalist enterprises—such as the precarization of working conditions, the unilateral extraction of value, the exploitation of information asymmetries, and the outsourcing of the entrepreneurial risk (De Stefano, 2016; Frenken, & Fuenfschilling, 2021; Mazzucato, Ryan-Collins, & Gouzoulis, 2020; Ravenelle, 2017; Zuboff, 2019).

For all these reasons, the current “platform capitalism” regime (Srnicek, 2017) is now increasingly questioned by digital workers’ associations, activists, public institutions, academics, and civil society actors across the world, who are pushing for the experimentation of alternative forms of governance for the digital economy. Particularly notable is the case of the global movement known as “platform cooperativism,” claiming that platforms should be

democratically governed and collectively owned by their workers and users (Scholz, 2014).

The scope of this article is to develop an overarching normative justification for this innovative governance model (see also Christiaens, 2024; Spier, 2022).

To reach this objective, in the first section, it is presented the theory that underpins the argument, focusing on the two main specifications that the article brings to its inspiring framework of Rawlsian contractualism: 1) since infrastructures are shared resources essential to citizens for pursuing different plans of life and participating as equals in society (Frischmann, 2005, 2012), they are considered as homomorphic to Rawlsian social primary goods (Sacconi, 2015). Hence, it is argued that the system of rules established for governing them directly enters the basic structure and can be the object of a constitutional agreement bargained behind the veil. Moreover, given the usual nature of infrastructures of being non-excludable and only partially rival means that create value for their users through free downstream activities which determine positive externalities (Frischmann, 2005, 2012; Sacconi, 2015), both efficiency reasons and social justice principles would suggest for such agreement a form of governance as commons (Ostrom, 1990, 2015); 2) despite the Rawlsian premise, a richer metric of justice should thus inform the agreement determining infrastructures' rules. The Senian notion of capabilities, intended as the effective freedoms to access and use an infrastructure in different unpredictable ways, is proposed as a replacement for Rawlsian primary goods due to its co-essentiality with the governance of the commons.

The second section introduces instead the institutionalist part of the argument: 1) since the Internet is a non-excludable and (partially) rival multi-layered conglomeration of different infrastructure resources intertwined with each other (Frischmann, 2012), it is a field of application of the theory; 2) digital platforms, being applications running on the Internet at the meso-level, should be governed following the proposed social contract: as commons. In light of these results, the third section traces then the multi-level social contract informed by

the capability approach that the article proposes to take as the normative framework for guiding the design of digital platforms' concrete governance structures. Moreover, in the same section, it is also argued that platform cooperatives are the most coherent organizational model for substantiating this framework in the sharing economy domain. Finally, the last section presents the real-life example of a platform co-op project, i.e. the French platform CoopCycle, that will work as an empirical benchmark to exemplify how the proposed normative framework can work in practice and assess it. The conclusion follows.

1. GENERAL THEORY: TWO SPECIFICATIONS OF RAWLSIAN CONTRACTUALISM

1.1. The Infrastructural Account of the Basic Structure

As anticipated in the introduction, this article takes a Rawls-inspired constitutional contract framework as its theoretical underpinning. In particular, it refers to the business ethics strand of literature that adopted social contract theories to evaluate corporations' fiduciary duties and responsibilities towards their different stakeholders (e.g. Bishop, 2008; Donaldson, 1982; Donaldson, & Dunfee, 1994, 1995, 1999; Hsieh, 2015; Wempe, 2008). Moving within this tradition, it implements, among the many possible, the interdisciplinary version of the theory proposed by Lorenzo Sacconi (2000), i.e. the so-called "social contract of the firm."

The first feature characterizing Sacconi's account is undoubtedly the particular position he takes on Rawlsian institutionalism, namely, the assumption of the viewpoint of the new institutional economic analysis of the firm: an approach that considers firms as institutions to be judged according to how they minimize transaction costs for their different stakeholders (Coase, 1937; Grossman, & Hart, 1986; Hansmann, 1996; Hart, 1995; Hart, & Moore, 1990; Williamson, 1985). Accordingly, Sacconi starts by accepting Mashiko Aoki's definition of corporate governance as "the structure of rights and responsibilities" bargained

“among the parties with a stake in the firm” (2000: 11).⁴³ Then, assuming that all the contractors are rational and equally free agents and drawing lessons from stakeholder and game theory (see Binmore, 2005; Freeman et al., 2010), he develops and models a hypothetical and multi-stakeholder agreement in order to frame corporate social responsibility as an “extended” governance structure based on a fair division of rights and liberties (i.e. corporate entitlements) amongst them—hence adding social-justice-based distributive motivations for a fair bargaining process to the ones related to transaction costs reduction. Finally, he argues that the sum of these motivations would make the social contract stable in equilibrium.⁴⁴ Consequently, the usefulness of Sacconi’s account is that we can implement it to justify a plurality of democratic governance structures for firms, such as socially responsible for-profit corporations, the German co-determination model, multi-stakeholder social enterprises, or different kinds of cooperatives.

Moreover, these ideas are fundamentally related to another important debate in post-Rawlsian business ethics: the opportunity of expanding the conception of the basic structure of society (Rawls, 1971) in order to include corporate institutions and link two different levels of the theory of justice (i.e. justice at the social and at the firm level) to motivate the application of constitutional contract principles to firms (Arnold, 2013; Berkey, 2021; Blanc, 2016; Blanc, & Al-Amoudi, 2013; Fia, & Sacconi, 2019; Heath, Moriarty, & Norman, 2010; Mansell, 2013; Nèron, 2015; Norman, 2105; Singer; 2015). Traditionally, the two main

⁴³ This definition comprises both the distribution of property rights over the firm and its products (i.e. the ownership dimension) and the actual management of the firm itself (i.e. the control dimension).

⁴⁴ Note that this argument works only if we accept a kind of mixed-motive rationality and thus stay at the intersection of the two main philosophical traditions adopting the social contract way of reasoning, i.e. the contractualist (classically characterized by philosophers such as Rousseau, Kant, Rawls, and Scanlon) and the contractarian one (characterized, among others, by Hobbes, Harsanyi, Buchanan, Hampton, and Gauthier), and try to interpolate them. One good example can be found, in this sense, in Ken Binmore’s game theoretical interpretation of Rawls’ theory of justice (1997, 2005).

positions characterizing this debate are the so-called “coercive account of the basic structure” and the “profound effects” one (Berkey, 2021: 186-187).

According to the first position, mainly represented by Abraham Singer (2015), only legally coercive institutions that can originate from an “overlapping consensus” are part of the basic structure, and thus corporations, as private associations related to comprehensive conceptions of the good, fall outside its perimeter. On the other hand, according to scholars such as Sandrine Blanc and Ismael Al-Amoudi (2013), all major social institutions are part of the basic structure as long as they have a profound effect on citizens’ well-being. Therefore, due to the decline of the welfare state in Western societies, there are reasons to argue that corporate governance principles should be included, at least to a certain extent, in the basic structure of society and that corporations should be subjected to legal requirements imposing them to adopt some forms of workplace democracy. Sacconi’s theory, which dates well before this debate (Sacconi 2000, 2006, 2007, 2011a, b, c), is clearly situated within this second half of the spectrum.

Following this theory, corporations, when run according to the “shareholder-primacy” principle, risk creating the paradox of “Penelope’s canvas,” compromising during the night the results that the state reaches during the day thanks to its welfare policies (Fia, & Sacconi, 2019). More specifically, by allocating rights and liberties over resources that influence their functioning and the distribution of fundamental welfare opportunities and creating lock-in effects that make exit options not frictionless (due to the essential investments that different stakeholders may undertake in the firm), corporations imply the possibility of abuses of authority and may contribute to the increase of inequalities within modern societies. For this reason, Sacconi can argue that, if the Rawlsian basic structure deals with the equal distributions of rights and liberties over the major social institutions, the constitutional

contract of the firm necessary complements and further specifies this broader contract by distributing corporate entitlements between all the relevant firm's stakeholders.

Notwithstanding, Brian Berkey (2021), even acknowledging the reasonableness and plausibility of applying Rawlsian principles of justice to the corporate domain, stresses how this second position, at least in the characterization given by Blanc and Al-Amoudi, is not exactly an enlargement of the basic structure, but more an extension of the power of the state over firms—and, more generally, he is convinced that the application of these principles can be pursued better at other levels rather than at the basic structure one. Despite this is exactly the point of the paradox of Penelope's canvas, which implicates the necessity of rediscussing the frontier between private and public law and questioning the idea that the basic structure is only constituted by state institutions, what I would like to do here is to argue for a less demanding enlargement of the basic structure conception to at least include the systems of rules established for governing shared infrastructures. I call it the “infrastructural account of the basic structure.”

In fact, Brett Frischmann recalls how infrastructures are traditionally defined as a set of resources “made by humans for public consumption” (2012: 3)—such as transportation systems (like highway, railway, airline systems, and ports), communication systems (like telephone networks and postal services), governance systems (like courts), basic public services and facilities (like schools, sewers, and water systems)—and further qualifies them as shared means to many ends that citizens should be able to freely access and use in order to participate as equals in society since they are essential for pursuing different plans of life. They “shape complex systems of human activity, including economic, cultural, and political systems” and “affect the behavior of individuals, firms, households, and other organizations by providing and shaping the available opportunities of these actors to participate in these systems and to interact with each other” (2012: xi). Consequently, they can be intended as

homomorphic to Rawlsian social primary goods (see Sacconi, 2015; Veca, 2015), which are defined by Rawls (1971) as those goods that every individual would rationally want from social distribution regardless of whatever else he/she wants for his/her life because they are central for many life plans. But, if infrastructures share the main feature of social primary goods, it follows that the rules governing them can be legitimately considered as part of the basic structure and possibly selected behind a veil of ignorance in accordance with the idea of justice as fairness.⁴⁵

Furthermore, in addition to being homomorphic to social primary goods, infrastructures are characterized by Frischmann (2012) even by how they generate value for their users, i.e. through downstream productive activities that determine positive spillovers. Namely, if appropriately governed, these resources create shared value: single users, freely accessing and using them, not only benefit themselves due to the essential services infrastructures provide but can also produce not ex-ante predictable cascade effects for the other users. Now, given that infrastructures (such as the Internet) are usually characterized by non-excludability and (partial) rivalry—meaning that they face problems of congestion and overuse only after a certain tipping point and that it is extremely costly to exclude potential users—efficiency reasons, in addition to the principles of justice, would suggest their governance as commons (Ostrom, 1990, 2005): a managerial form of economic organization, open to different possible juridical concretizations, based on the freedom of accessing and

⁴⁵ Note that a strict Rawlsian scholar may disagree with this argument. Rawls, categorizing social primary goods as goods that are distributed by society, seems to understand them as potential objects of individual pursuit for which limited resources are available. In this sense, he includes rights and liberties, powers and opportunities, income and wealth, and the social bases for self-respect. Surely, infrastructures do not fall neatly into this account. However, recalling Sacconi (2015), I just wanted to stress a homomorphism between social primary goods and infrastructures, due to the characteristic of infrastructures of being means open to many possible ends that all individuals would ex-ante want to be freely accessible and usable before knowing their ex-post positions in society. For the scope of the article, this makes it possible to include the rules governing infrastructures in the basic structure and extend to them the constitutional contract argument.

collectively governing a common pool resource.⁴⁶ Indeed, that would both preserve the infrastructures' homomorphism to social primary goods (and thus their constitutive openness) and their possibility to unpredictably create value through positive cascade effects. In this sense, infrastructures governed as commons can give rise to a "comedy of the commons" (Frischmann, 2005, 2012; Sacconi, 2015).

As a consequence, the first specification of Rawlsian contractualism this article proposes is the following: "Whatever organization manages a shared infrastructure, irrespective of the concrete institutional structure it adopts, should be run in compliance with a social contract modeled according to the principles of the commons since the rules governing infrastructures enter the basic structure and a form of governance as commons would respect both the openness of infrastructures that is demanded by justice and their capacity to produce shared value."

1.2. The Metric of the Social Contract

Let's now introduce the second specification related to the metric of justice that should inform the social contract generating these rules. Since the hypothetical contract we are dealing with is going to affect stakeholders' flourishing by distributing rights and liberties over a shared resource that is necessary to pursue different plans of life and produce unpredictable positive spillovers, we need a richer metric for informing the agreement (see Robeyns, & Brighouse, 2010). In fact, we must account not only for the distribution of rights and liberties but also for the effective possibility of converting the resource into valuable realizations. Relying, again, on Fia and Sacconi (2019), the consequentialist (but not

⁴⁶ Frischmann further specifies this compatibility between shared infrastructures and governance as commons by introducing the idea of "semi-commons," that is, when the government (or some community organization) can also participate to define common-based institutional regimes in terms of private/community rights for certain fields of use in order to guarantee resource integrity for present and future generations (2012: 230). Hence, freedom of access does not mean in any way the absence of a system of rules for balancing the respective liberties of the different users.

welfarist) metric represented by the Senian notion of capabilities seems to be the best candidate for operating as the informational basis of such a contract. Note that the same Amartya Sen (2009), even if he would never define himself as a contractarian, has already claimed in favor of an expansion of the “idea of justice” beyond the domain of the “theory of justice” to address Rawlsian “transcendental institutionalism” and accommodate other social institutions whose effects on citizens’ well-being may be assessed only through the more comprehensive lens of the capability approach.⁴⁷

Sen’s position against Rawlsian transcendental institutionalism is in fact specifically connected with the inflexible and infeasible nature of Rawls’ metric of justice. Namely, according to Sen, real people have different capacities for concretely using their primary goods and, consequently, may suffer from “truncated opportunities” (Roemer, 1996), i.e. they may be incapable of converting goods into functionings.⁴⁸ On the contrary, Senian capabilities are exactly substantive opportunities to achieve doing and beings that people have reason to value within a certain institutional domain (Robeyns, 2017). Accordingly, for having a substantive opportunity and not only an abstract one, two components of the capability notion must be present at the same time: 1) an entitlement component, which is an effective legal right to access and use a certain resource, and 2) a skill component, which is the ability of an individual to exercise his/her agency and consequently choose, within a certain capability set, how and if to use this entitlement to convert the resource into a

⁴⁷ As a matter of fact, there is now increasing literature applying the capability approach to corporate ethics (e.g. Bueno, 2022; Enderle, 2013; Giovanola, 2009; Gonzalez-Canton, Boulos, & Sanchez-Garrido, 2019; McGranahan, 2020; Weidel, 2018). None of these works, however, specifically analyze corporate governance through a capability lens.

⁴⁸ Rawls replies to this criticism in *Justice as Fairness: A Restatement* (2001). Accordingly, he first stresses that “the account of primary goods does take into account, and does not abstract from, basic capabilities: namely, the capabilities of citizens as free and equal persons in virtue of their two moral powers. It is these powers that enable them to be normal and fully cooperating members of society over a complete life and to maintain their status as free and equal citizens” (2001: 179). Secondly, he claims that, in case of severe illness or accidental and temporary fall below the minimum essentials, the distribution of primary goods can be flexibly adjusted at the legislative level.

valuable functioning. The first component has been explored mostly by Martha Nussbaum in capability-oriented interpretations of constitutional and human rights law (1997, 2003, 2009) and resonates with her concept of “combined capability” (2011); the second by Sen himself, who has also extensively analyzed its social determinants, since the outset of his production (see e.g. Sen 1980, 1985, 1992).

However, to link this twofold interpretation of the capability notion with its unusual application to the social contract tradition (see Nussbaum, 2003, 2011 for a criticism of the social contract way of thinking, even if, in her most recent contributions, she has endorsed a sort of Rawlsian overlapping consensus for selecting her list of central human capabilities), Fia and Sacconi (2019) make another step in their normative argument which is useful for the purposes of this article (see also Sacconi, 2024). This step consists of grounding capabilities in an economic analysis of law in order to justify their implementation in the corporate governance domain thanks to the “social contract of the firm” (a path already opened by previous applications of the capability approach to international human rights, constitutional, contract, and labor law, such as Burchardt, & Vizard, 2011; Burchi, De Muro, & Kollar, 2014; Deakin, 2006; Enderle, 2013; Gonzalez-Canton, Boulos, & Sanchez-Garrido, 2019; Langille, 2019; Nussbaum, 1997, 2009; Sen, 2005).

More specifically, the idea is to read capabilities through Hohfeld’s (1917) deontic taxonomy of jural positions and relations, opportunely revisited by Commons’ (1924) and Sumner (1987) (on this point, see also Fia, Sacconi, & Vatiéro, 2023; cf. Claassen, 2018). In fact, in the Hohfeldian sense, a juridical relation between two (or more) people concerning a certain resource is characterized by a fundamental opposition between their reciprocal claim-rights and liberties: the “claim-right” of one party generates a “duty” of the other party not to access and use the resource, whereas a “privilege,” or “liberty,” is the absence of that duty, i.e. an “immunity” to such claim-right. Hence, since capabilities are substantive opportunities

to access and use resources, they may be interpreted as Hohfeldian liberties: the latter concept captures the same idea but from a juridical point of view. Namely, an agent owns a capability if he/she is entitled to use his/her skills to freely access and convert a resource into a valuable functioning without being limited by some other's claim-rights.

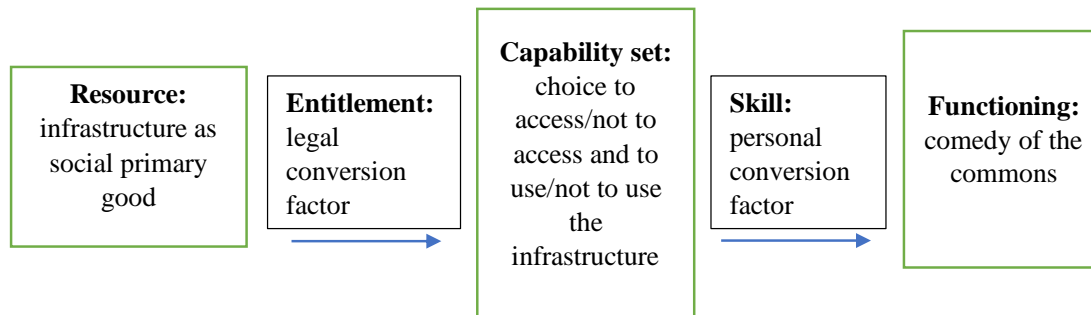
Therefore, it follows that, when the equal liberties of different stakeholders over a shared resource risk conflict with each other, it is necessary to develop a democratic governance structure that balances and protects all these liberties. This interpretation makes capabilities co-essential with a form of governance as commons and a good informational basis for the collective design of a multi-stakeholder social contract over a shared infrastructure developed to preserve the openness of the infrastructure itself and the equitable distribution of the value that it can produce through the free downstream activities of its users.

On this basis, we can read, with Ribot and Peluso (2003), the traditional conception characterizing property rights over common pool resources as bundles of rights (see Schlager, & Ostrom, 1992) with the more dynamic and relational idea of "bundles of powers." Hence, it can be argued that the privatization (or nationalization) of an infrastructure disempowers stakeholders and deprives their capabilities by negating their liberties to access a shared resource and use it to achieve functionings that can benefit themselves and other users. Instead, a democratically bargained extended model of governance that balances the liberties of different stakeholders would be coherent with the idea that an infrastructure is a non-excludable and only partially rival means that must remain open to many possible non-foreseeable ends which stakeholders can pursue in a mutually beneficial way just if they are empowered with fairly distributed entitlements over it which put them in the condition to freely use their individual skills of converting the infrastructure into valuable realizations.

In this sense, the second specification of Rawlsian contractualism this article introduces is the following: “When a social contract is designed as the normative framework for the governance of a shared infrastructure, the richer metric of justice represented by Senian capabilities should be taken as the informational basis of the agreement, instead of Rawlsian primary goods, due to the co-essentiality of this notion with a model of governance as commons.” Accordingly, I take a step further even from Fia and Sacconi (2019) (see Fia, Sacconi, & Vatiero, 2023). Indeed, while they only speak about a general constitutional contract on the distribution of primary goods and capabilities (without expressing a strong preference over the two metrics), I consider primary goods just as the “resource” input of the vector of functioning representing the notion of capability in relation to a shared infrastructure, which also necessitates of the “skill” and “entitlement” components in order to operate as the informational basis of the agreement, analytically justify a form of governance as a common, and, consequently, give to contractors the genuine opportunity to exercise their agency and convert the infrastructure into (mutually) valuable functionings.⁴⁹ I try to make this clearer in Figure 1.

⁴⁹ This is extremely coherent with Sen’s idea that: “The focus on basic capabilities can be seen as a natural extension of Rawl’s concern with primary goods, shifting attention from goods to what goods do to human beings” (1980: 218-219).

Figure 1 – The Notion of Capability as A Vector of Functioning Concerning a Shared Infrastructure



Source: Adapted from Chiappero-Martinetti, Grasso, & Pareglio (2007) and Robeyns (2017)

2. THE INSTITUTIONALIST ARGUMENT: THE INTERNET AS A SHARED INFRASTRUCTURE (AND THUS A FIELD OF APPLICATION OF THE THEORY)

Since the outset of the Internet in the US and up to many years later, there was not a clear idea of what governance structure could be most desirable to select for it, both in economic and ethical terms, because the two traditional frames usually adopted for organizing resources, i.e. state or private control, were not considered promising options for preserving the specificity of this complex, decentralized, layered, and adaptive system (Schultze, & Whitt, 2016). Thus, particularly after its capillary diffusion around the world, neither the strategies of a purely privatized Internet nor the one of complete federal control were fully pursued (see Garcia, 2016). Referring to Aoki’s game-theoretical interpretation of an institution as a “self-sustaining system of shared beliefs about a salient way in which the game is repeatedly played” (2001: 10), we could be thus tempted to interpret that time as characterized by an institutional deficit.

Instead, a third option was initially chosen: framing the Internet as a shared infrastructure, or, according to Linda Garcia (2016: 541), a “dynamic common-pool resource

rife with positive externalities,” and governing it accordingly. More specifically, following Frischmann (2012), the Internet is a complex and layered system that consists of a conglomeration of different infrastructure resources. At the macro level, we have a (congestible) physical infrastructure dimension, characterized by a variety of physical networks interconnected to each other (such as telecommunications, cable and satellite networks, routers and servers, and backbone networks), and a non-excludable logical infrastructure dimension (that is what properly makes a collection of networks the Internet), i.e. the standards and protocols that facilitate the transmission of data across networks (such as the TCP/IP and the domain name system). At the meso-level, we have different applications (i.e. platforms) running on the Internet, which are the programs with whom end-users interact and that have assumed a huge relevance in our daily lives (such as social media platforms, marketplaces, sharing platforms, etc.). Finally, at the micro level, we have the content, information, communication, knowledge, and services that end-users exchange through platforms and the social ties and relations they create among each other in doing that, i.e. the different ways end-users can employ the shared infrastructure to their mutual benefit. Note that, considering all online knowledge exchanges together, scholars sometimes even speak about a “knowledge commons” dimension in relation to the Internet (Hess, 2008). Table 1 below (Frischmann, 2012: 320) synthesizes this multi-layered interpretation (on the multi-level analysis of complex systems and institutions see, in particular, Ostrom, 2010 and von Jacobi, 2018).⁵⁰

⁵⁰ Such a reconstruction is also shared by a variety of Internet experts like Vasilis Kostakis and Michel Bauwens: “The P2P infrastructures, such as the Internet, are those infrastructures for communication, cooperation and common value creation that allow for permission-less interlinking of human cooperators and their technological aids” (2014: 15).

Table 1 – Frischmann’s Five-layered Model for Interpreting the Internet

Layer	Description	Examples
Social	Relations and social ties among users	Social networks, affiliations, groups
Content	Information/data conveyed to end-users	E-mail communication, music, web page
Application	Programs and functions used by end-users	E-mail program, media player, web browser
Logical Infrastructure	Standards and protocols that facilitate the transmission of data across physical networks	TCP/IP, domain name system
Physical Infrastructure	Physical hardware that comprises interconnected networks	Telecommunications, cable and satellite networks, routers and servers, backbone networks

Source: Frischmann (2012: 320)

Now, since the Internet boils down to this networked collection of different CPRs à la Ostrom (1990) that would lose its centrality to many plans of life and its capacity to produce positive externalities if not governed in order to guarantee non-discriminatory community access, we can read it through the theory developed in the previous section. Therefore, the rules governing the Internet directly enter the basic structure of society and can be the legitimate object of a constitutional contract informed by the capability approach: “The Internet’s value to society is tied to the range of capabilities it provides for individuals, firms, households, and other organizations” (Frischmann, 2012: 336). Moreover, since are the

applications of the meso-level those with whom end-users concretely interact, that embody the Internet's centrality, and that allow the production of positive spillovers (both creating new platforms or contributing to the growth of existing ones by determining network effects), they are, in my view, the privileged field of application of the theory.

Hence, we are in the position of arguing that digital platforms, in order to respect and valorize the infrastructural nature of the Internet, should be governed, at least to a certain extent, as commons. Quoting again Frischmann: "Managing the Internet infrastructure in this manner (ed., *as a common*) facilitates active citizen involvement in the production and sharing of public and social goods. Over the past decade, this has led to increased opportunities for a wide range of citizens to engage in entrepreneurship, political discourse, social network formation, and community building, among many other socially valuable activities" (2012: xii). Coherently, a recent strand of literature proposes to apply the common law of carriers to tech platforms (Sitaram, & Ricks, 2024). Furthermore, empirically, we can also recall in this sense a plurality of famous experiences of governance as commons—sometimes explicitly called "commons-based peer production systems"—that have been created at the outset of the Internet and that are now still active and successful, e.g. the FLOSS (Free/Libre/Open-Source Software) projects, such as Linux, and the Wikipedia encyclopedia (Benkler, 2006; Fuster Morell, 2014; Hess, 2008; Kostakis, & Bauwens, 2014; Silberman, 2016).

This same frame was initially applied even to the specific object of this article, i.e. the platforms of the sharing economy. Appeared around 2008, the sharing economy, characterized by nonprofit platforms such as Couchsurfing and the first for-profit ones such as Uber and Airbnb, was in fact presented at that time by its proponents as a reaction to the diffused poverty and precariousness generated by the global financial crisis based on the idea of sharing idle assets among peers thanks to the opportunities offered by the recent invention

of the smartphone in order to counteract overconsumption and extreme market inequalities (Botsman, & Rogers, 2010; Pais, & Provasi, 2015; Schor, & Cansoy, 2019). Accordingly, the self-declared purpose of the early sharing platforms was to question the rigid distinction between markets and firms, disintermediate transactions by directly matching providers and customers, and democratize the entire economic system, letting peers self-organize themselves and reappropriate the value they produce with their (digital) exchanges.

However, we know that venture capitalists entered soon the board of directors of the leading for-profit tech companies of the time and betrayed these ideals by imposing a privatized form of governance. Arguably, platforms such as Uber were already actually born with a hyper-capitalist mentality and were just concealing it behind the name of sharing platforms waiting for the entrance of VC (Isaac, 2019). In any way, what is important is that, by replicating the same narrative about the birth of a new sharing culture, the Silicon Valley giants have been capable of imposing themselves and their capacity to unilaterally set the rules for sharing markets, starting to simply sell new products and services via digital means (Ravenelle, 2017) and mimic traditional corporations' hierarchical organizational structure and potentially abusive behavior (see Anderson, 2017; Frenken, & Fuenfschilling, 2021; Sacconi, 1999).

That is the reason why this governance system, founded on the private enclosure of the Internet and legally sanctioned private monopolies (Lehdonvirta, 2022; Pistor, 2019), was dubbed "gig economy," "platform capitalism," or "neoliberalism on steroids" (Murillo, Buckland, & Val, 2017; Srnicek, 2017; Woodcock, & Graham, 2020). Indeed, in the following years, the platform capitalism has been accused of re-actualizing and exacerbating the very same problems that the sharing economy wanted to address in its beginnings, such as bad working conditions, low-paid jobs, employee misclassification, data extraction, anti-competitive behavior, and algorithmic surveillance (Davis, 2022; De Stefano, 2016;

Marciano, Nicita, & Ramello, 2020; Mazzucato, Ryan-Collins, & Gouzoulis, 2020; Pais, & Provasi, 2020; West, 2019; Zuboff, 2019). Moreover, one of the common fears that digital scholars share now is that this model is spreading beyond the domain of the (former) sharing economy and threatening the governance of the Internet as a whole (see Garcia, 2016; Zittrain, 2008). Recall, in this sense, this quote from Yochai Benkler, faculty co-director of the Berkman Klein Center for Internet and Society at Harvard University: “We find ourselves in the midst of a battle over the institutional ecology of the digital environment. A wide range of laws and institutions [...] are being tugged and warped in efforts to tilt the playing field toward one way of doing things or the other. How these battles turn out over the next decade or so will likely have a significant effect on how we come to know what is going on in the world we occupy, and to what extent and in what forms we will be able [...] to affect how we and others see the world as it is and as it might be” (2006: 2).

Hence, there is a shared recognition at this stage of the need to develop alternative governance models for digital platforms in order to tackle the disruptive outcomes determined by platform capitalism and revitalize the original ideals of economic democratization and common-like management of the digital infrastructure (see Arcidiacono, & Pais, 2020; Pais, & Provasi, 2020). However, there are still not so many normative justifications for these alternative models. In the next section, I will try to bridge this gap and apply the theory presented in the previous section by building a multi-level social contract informed by the capability approach to guide the design of more equitable governance structures for digital platforms. Furthermore, I will also propose to intend the recent project of “platform cooperativism”, i.e. the idea of platforms owned and managed directly by their workers and users (Scholz, 2014), as the most coherent organizational form for substantiating this normative framework within the sharing economy domain.

3. A MULTI-LEVEL SOCIAL CONTRACT INFORMED BY THE CAPABILITY APPROACH AS AN EXTENDED GOVERNANCE MODEL FOR DIGITAL PLATFORMS

3.1. The Contract Structure

To summarize the results of Sections 1 and 2, the following points can be derived:

1) The Internet is a shared infrastructure characterized by non-excludability and only partial rivalry that is essential for pursuing many plans of life for the citizens of our modern societies (Frischmann, 2012).

2) Hence, it is homomorphic to Rawlsian social primary goods and its rules enter the constitutional contract bargained behind the veil (see Sacconi, 2015).

3) Due to this essential character and its capacity to create positive externalities through the free downstream activities of its users, the social contract determining the Internet's rules should be modeled according to the principles of the commons (Ostrom, 1990, 2005).

4) Hence, digital platforms, as organizations running on the Internet at the meso-level, should be governed as commons in order to comply with the proposed extension of the basic constitutional contract of society.

5) The metric of justice most compatible for informing such a contract is the Senian notion of capabilities because of its co-essentiality with a model of governance as commons.

Accordingly, I will dedicate this section to the normative design of a capability-informed social contract for concretely guiding the arrangement of digital platforms' governance structures.

More specifically, in opposition to earlier applications of James Buchanan's (1975) constitutional contractarian theory to the sharing economy aiming to justify the current unilateral rule-setting power of digital platforms (see Hielscher et al., 2022; cf. also Ghirlanda, & Sacconi, 2024) and in light of the multi-layered nature of the Internet presented in section 2, my proposal is to apply, following Sacconi (2000, 2006, 2011a), the Buchanan's categories of constitutional and post-constitutional contracts in combination with the Integrative Social Contract Theory (ISCT) developed by Thomas Donaldson and Thomas Dunfee (1994, 1995, 1999).

Consequently, at the macro-constitutional stage, the hypothetical social contract would be modeled as an impartial and impersonal bargaining game played behind a Rawlsian veil of ignorance (see, Binmore 2005) in which the hypothetical contractors agree on a set of "hypernorms" establishing a fair distribution of capabilities as entitlements over the Internet, i.e. bundles of powers, rights, and liberties compatible with its governance as a common.⁵¹ At the same time, this macro-social contract would also leave some "moral free space" to the relevant stakeholders about the decision of how to post-constitutionally specify these entitlements in platforms' bylaws for governing the different applications running on the Internet. Hence, at the post-constitutional stage of the contract, real contractors, endowed with their symmetrical set of bargained rights, liberties, and powers, must: 1) first make a *pactum unionis*, with whom they decide to unite in a multi-stakeholder team to pursue a common purpose through a digital platform in compliance with the macro-constitutional principles (a *pactum* that must include both the action plan for creating value and the criterion

⁵¹ Note that, accepting the perspective I am proposing in this article, this constitutional contract, by entering the basic structure of society, is at the same time embedded into the broader constitutional contract determining the distribution of entitlements related to the other major institutions in society (i.e. the distribution of entitlements over the Internet cannot betray, for example, the principles of constitutional or human rights law). In institutional economics, this idea is expressed through the notion of "institutional complementarities" (see Amable, 2016; Aoki, 2001, 2010).

of justice for distributing it); 2) and then a *pactum subiectionis*, with whom they decide the best way to balance the respective liberties to access and use such a platform through a juridical form that respects the *pactum unionis*, delegate the authority to manage it, and fix the relative constraints and accountability standards to this allocation of authority in order to preserve these liberties (see, again, Fia, & Sacconi, 2019).

Interestingly, assuming that, in the real world, we will be forced to make some trade-offs when balancing liberties, the capability approach offers the intriguing idea of a “sufficientarian” rule of distribution (Anderson, 2010) by referring to the conception of “democratic equality” (Anderson, 1999). Namely, the selected governance structure must ensure that all the stakeholders are granted the possibility to reach at least the sufficient level of functioning that is required to continuously participate as free and equal persons in society as a system of cooperative production. That means being sure not only that they have certain entitlements, but also that they can continue to exercise these entitlements without the risk of arbitrary exclusion, and consequently create shared value through their day-by-day downstream productive activities (see Wolff, & de-Shalit, 2007 on the concept of “secure functioning”). Otherwise, the post-constitutional micro-agreement would betray the macro-principles, hence breaking the contract, opening the path for abusive corporate behavior and the loss of stakeholders’ republican freedoms (see Anderson, 2017; Sacconi, 1999), and compromising the benefits that the same digital infrastructure can produce for its users.⁵² In Table 2 below an attempt at designing this multi-level social contract is presented.

⁵² The same Philip Pettit (2001) points out the similarities between the concept of republican freedom and the notion of capabilities.

Table 2 – The Proposed Multi-level Social Contract for the Governance of Digital Platforms

Institutional Level	Contract Stage	Content
Micro	Contract operationalization	Stakeholders’ continuous access to the platform and conversion of entitlements into functionings (production of shared value)
Meso	Micro-post-constitutional contract (<i>pactum unionis</i> and <i>pactum subiectionis</i>)	Governance structure for a concrete digital platform in compliance with the macro-principles (e.g. platform cooperatives)
Macro	Macro-constitutional contract	(Hypothetical) distribution of rights and liberties over the Internet as a shared infrastructure

Source: Author’s own elaboration

3.2. Why Platform Cooperatives?

Coherently with the idea of a hypothetical macro-social contract that can be specified in different possible ways by a local social contract for selecting the governance of a particular firm (see again Section 1.1 on Sacconi’s account of the “social contract of the firm”), many options are open for detailing the governance structure of a specific digital platform. Among these options, platform cooperatives have already been described, even if without any reference to the social contract framework, as the most promising one when it comes to

establishing an alternative to commercial sharing platforms based on the principles of the commons (Arcidiacono, & Pais, 2020; Nicoli, & Paltrinieri, 2019; Papadimitropoulos, 2021; Scholz, 2023; Zygmuntowski, 2018). (Note that McGranahan, 2020 coherently presents shared-owned firms as the most capability-enhancing).

Quoting Scholz (2017), the platform cooperativism idea is indeed “about cloning or creatively altering the technological heart of the sharing economy” (2017: 174) while implementing the traditional cooperative principles of democratic governance and shared ownership. Thus, he can claim that platform cooperatives are able to address the already mentioned problems of the sharing economy by democratically giving voice and participatory rights to all the relevant stakeholders and balancing their different interests concerning a shared resource (see also Mannan, & Schneider, 2021). This makes platform cooperatives fully compatible with the social contract framework presented in the previous section. In particular, the multi-stakeholder membership type seems to be the closest one with such a framework because of its intrinsic feature of including in the governance, even if at different levels, the most important stakeholders, such as platform developers, workers, customers, public institutions, local communities, investors, suppliers, third parties, activists, and academics (see Acquier, Daudigeos & Pinkse, 2017; Schneider, 2018).

Furthermore, referring to the business ethics tradition that analyzes the viability of cooperatives through a social contract lens, there are reasons to argue that substantiating this normative proposal through the platform co-op model would also be viable. Indeed, platform co-ops may: 1) satisfy the quest for fairness created by the social contract procedure and empower all the involved stakeholders, reducing in this way the risk of executives’ abusive behaviors and their negative effects on the firm efficiency that can lead to stakeholders’ underinvestment in the long run; 2) engender psychological motivations based on conformity with the social contract akin to the Rawlsian idea of the “sense of justice,” solving, in turn,

the classic issue of the moral hazard in teams that is usually considered as the main threat to the viability of the cooperative organizational model (see Sacconi, 1992a, b, 1999; Sacconi, & Faillo, 2010).

However, saying that, I do not want to claim that the cooperative model is the perfect and only solution for all the problems of the digital economy (see Muldoon, 2022). In some cases, especially with global platforms such as Amazon or Facebook, we would probably find out that public institutions are more effective in constraining their monopolistic tendencies and enacting the social contract principles by leveling the playing field (note that the two options are not necessarily contradictory, but possibly complementary). Indeed, the traditional and well-known weaknesses of the cooperative model, such as the risk of free riding and the problem of scaling (see Alchian, & Demsetz, 1972; Bunders, & Akkerman, 2022; Bunders et al., 2022), could be almost insurmountable in the case of global platforms which connect dispersed users and require a complex organizational structure to function properly. That is the reason why I decided to focus my attention on locally-tethered sharing platforms, where the cooperative solution is easier to imagine because most of the services, even if managed online, are usually provided in the real world by people who can easily meet and organize (Vallas, & Schor, 2020; on the importance of political economies and spatial scales in developing viable alternatives for the digital economy, see Frenken, 2017).

At the local level, platform cooperatives may indeed prove: greater efficiency, related to the presence of lower transaction costs due to the more homogenous stakeholders' interests; greater reciprocal trust and mutual commitment, lacking a remote and unaccountable boss in the position of exploiting information asymmetries and abuse of his/her authority; higher productivity, due to the lower peer-monitoring effort that is required locally (even facilitated by the digital means); and stronger incentives to introduce quality improvements, since the infrastructural character of platform co-ops implicates that value

production and distribution can be democratically organized directly by the affected communities (see also Albanese, Navarra, & Tortia, 2014; Borzaga, 2015; Hansmann, 1996).

Furthermore, adopting the famous category of Richard Spear (2000), another “cooperative advantage” is often considered to be the capacity of co-ops to operate countercyclically and provide quasi-public services in times of crisis and when market failures emerge. That is again particularly doable at the local level by partnering with municipal institutions and mobilizing existing social and community networks, as the Italian history of multi-stakeholder social cooperatives shows (Borzaga, Depedri, & Tortia, 2011; Borzaga, & Sacchetti, 2015; see also Bunders, 2023 and Bunders, & Akkerman, 2022 on the importance of affective commitment and social capital in making platform cooperatives resilient). Accordingly, multi-stakeholder cooperatives have already been presented as the most efficient governance structure for providing public and social goods to citizens and managing shared infrastructures through a local social contract (Sacconi, 2015).

Therefore, it is not necessary to demonstrate the viability of a cooperative Amazon or a cooperative Facebook to apply the normative framework presented above and develop an overarching normative justification of platform cooperatives. On the contrary, we can simply say that, at the local level of service provision and, hence, in the case of the sharing economy sector, the principles of the commons can be represented particularly well by platform cooperatives—leaving open the possibility of sharing the technology within a network of federated local cooperatives in order to offer an alternative growth strategy to the building of big monopolistic giants (see Kostakis, & Bauwens, 2014 on the “global commons” scenario; Mannan, & Schneider, 2021; Scholz, 2023: 59). At the same time, the same principles can be conveyed at other levels of service provision by other governance structures when other kinds of platforms are involved, without compromising, for this reason, the general validity of the theory. Interestingly, this idea opens thus the path to other applications of the social contract

framework for justifying alternative governance models for digital platforms that may contribute, together with platform cooperatives, to making possible a sustainable, multi-level, and just digital transition.

4. AN EMPIRICAL BENCHMARK TO ASSESS THE PLAUSIBILITY OF THE THEORY: THE CASE OF COOPCYCLE

To show the meaningfulness of the normative argument developed above, the case study of a real-life platform co-op project is presented in this section and interpreted through the lens of the proposed multi-level social contract informed by the capability approach. The case in question is the French platform CoopCycle, founded in 2017 by a group of volunteers and a software developer with the aim of advocating against precarious working conditions within the food-delivery sector and making available an alternative organizational model. The project rapidly expanded in different countries and regions across the world, and they have now 72 groups of couriers as members: 60 in Europe, 9 in North America, 2 in South America, and 1 in Australia.

What makes CoopCycle an interesting case for the purpose of this article is its peculiar two-level structure. Indeed, CoopCycle is, at the same time, both a French nonprofit association that has developed a “digital common” and a global federation of bike delivery co-ops and collectives specialized in “last mile” deliveries that are empowered thanks to their being licensed and trained in the use of this common (see Papadimitropoulos, 2024; Vercher-Chaptal, 2021). More specifically, the association (thanks to the software developer) has created a code-based software infrastructure that can be accessed, customized, and, consequently, improved by an increasing number of autonomous local cooperatives from all over the world that are united in a federation run by the association itself, e.g. the food-delivery platform Mensakas from Barcelona (Kasparian, 2022). Thanks to the local

implementation of the CoopCycle software, all these bike delivery cooperatives have thus been enabled to compete with the commercial incumbents they have to face in their local contexts because, by pooling the technological investment, they have been able to overstep the main obstacle platform cooperatives face, i.e. the entry barrier represented by the cost of the platform (see Borkin, 2019). (Recall the parallel argument developed in Section 3 about how, at the local level of service provision, platform cooperatives may be a viable organizational solution and an alternative scaling strategy to the construction of private monopolies may be to federate with other co-ops operating in the same sector.) At the same time, the nonprofit association not only assists local cooperatives in the implementation of the software infrastructure but also in developing the business model, acting as a sort of incubator, and favors inter-cooperation and reciprocal knowledge exchanges between them.

Accordingly, the website of CoopCycle specifies the three main goals of the project: “To foster solidarity between coops, to reduce their costs thanks to services pooling and to create a common force to advocate for courier’s rights.”⁵³ Multiple stakeholders are hence involved in the democratic governance structure of the federation, currently organized with a general annual assembly—where all the federation members have equal representation and voting rights irrespective of the size of the different cooperatives; a board of directors—with a council of workers—elected during the annual assembly for the day-by-day management; and the different local cooperatives’ monthly assemblies. Moreover, to foster democratic governance and inclusivity, the association is also discussing the possibility of becoming a multi-stakeholder cooperative under French law (i.e. a Société Coopérative d’Intérêt Collectif—SCIC) in order to formally include in the governance all the relevant stakeholders, i.e. the bike-delivery co-ops and collectives which benefit from the activities of the federation, the employees who work for the federation, the volunteers of the association, and,

⁵³ <https://coopcycle.org/en/federation/>

possibly, also public institutions (Acosta Alvarado, Aufrère, & Srnec, 2021; Fortuny-Sicart, 2024; Papadimitropoulos, 2024). For example, the municipality of Paris has started to directly support the project and develop specific partnerships geared towards assisting food-delivery workers.⁵⁴

Now, adopting the lens of the normative framework presented in this article to interpret the governance of CoopCycle, we could first say that, to create the project, the contractors, at the constitutional level, had to hypothetically agree on the interpretation of the Internet as a shared infrastructure and on fair distribution of rights and liberties over it. Second, that, at the post-constitutional level, these constitutionally bargained entitlements have been concretely substantiated in the secondary association and inspired the creation of the digital common through a *pactum unionis* (see Sacchetti, & Tortia, 2015 on the embedment of cooperatives in a set of values and principles that define their governance structures). Third, that, in order to make the software locally customizable by the different bike delivery co-ops, the latter's respective liberties to access and use it have been balanced through a *pactum subiectionis*. This has been possible thanks to the development of a particular license, a Copyleft license, which grants open-source access to the common but asks to comply with certain conditions in order not to deplete the resource (i.e. having capitalist actors that opportunistically use it and ruin the project's reputation). Finally, we could say that the contract is concretely operationalized by the growing network of affiliated

⁵⁴ As a side note, this change of the legal status would imply the challenge of rediscussing and renovating the criteria for membership since we are speaking about a global federation with actors belonging to different legal systems. However, on the one hand, the SCIC structure grants some flexibility since different kinds of actors, even from abroad, are eligible as cooperative members of SCIC enterprises. On the other hand, CoopCycle's internal rules already recognize a two-year adaptation timeframe for each new member before asking them to be legally registered as cooperatives in their local contexts. Accordingly, the multi-stakeholder structure may offer in this sense a template for designing also the governance of the different local cooperatives. For example, local cooperators may use this organizational model to formalize their partnerships with municipal actors. Such a model is hence extremely coherent with the constitutional contract framework proposed in this article.

but autonomous bike delivery cooperatives which freely exercise their entitlements by joining the federation and creating a local node.

The conditions that the members of the federation must respect for accessing and using the common are the following: 1) opposite to commercial platforms, they must grant the member status to their couriers (with relative protections) and not extract customers' data; 2) they must pay a membership fee to the federation; 3) they must comply with the definition of social economy actors of the European Union. These are essential elements in order for the platform to effectively become a capability-enhancing institution. In fact, in this way, the typical problem of cooperatives, i.e. free riding, and a “tragedy of the commons” outcome, based on the congestion of the CPR, are avoided. On the contrary, a “comedy of the commons” can be produced. Namely, 1) individual cooperative associations that join the network can benefit from the possibility of pooling the software in order to overcome the capital conundrum, i.e. the huge cost of the technological infrastructure; 2) couriers that work for one of the platforms of the federation can benefit from being granted with the membership status and customers from remaining in control of their data; and 3) both individuals and local co-ops can benefit at the same time the other members of the federation by contributing to creating trust around the project, developing network effects (in France, where there are 38 affiliated cooperatives, this has already started to happen), favoring mutual learning and cultural connectivity, and helping to further improve the software itself through innovation spillovers thanks to its local customization.

Accordingly, CoopCycle resonates with Kostakis and Bauwens's (2014) “global commons” scenario for a future collaborative economy and their call for the competitive advantages that can be achieved by combining the social and solidarity economy principles with the open-source ones: “Though production is distributed and therefore facilitated at the local level, the resulting micro-factories are considered as essentially networked on a global

scale, profiting from the mutualized global cooperation both on the design of the product, and on the improvement of the common machinery” (2014: 50). I summarize these ideas in Table 3.

Table 3 – The Analysis of CoopCycle through the Lenses of the Proposed Normative Framework

Institutional Level	Contract Stage	CoopCycle’s Governance
Micro	Contract operationalization	Conversion of entitlements into functionings by the (growing) members of the federation which customize the software by creating local nodes
Meso	Micro-post-constitutional contract (<i>pactum unionis</i> and <i>pactum subiectionis</i>)	Entitlements substantiated in the governance of the CoopCycle association and liberties over the code-based infrastructure balanced thanks to the Copyleft license
Macro	Macro-constitutional contract	(Hypothetical) distribution of rights and liberties over the Internet as a shared infrastructure

Source: Author’s own elaboration

5. CONCLUSION

To sum up, this article started with a central research problem: tackling the issue of how to govern digital platforms in order to reduce their potentially disruptive effects without renouncing the many advantages they offer. In particular, it focused on the corruption of the original ideals of economic democratization connected with the advent of the first sharing platforms and their early substitution by platform capitalism, an even more unequal way of conducting business as usual. Accordingly, the main goal of the article was to present an alternative model to organize sharing platforms that is recently getting attention, i.e. the so-called “platform cooperativism,” and try to develop a normative justification for this model. To do that, the theoretical framework of the “social contract of the firm” has been adopted but adding two specifications to Rawlsian contractualism. First, an “infrastructural account of the basic structure” has been proposed, arguing that the rules governing shared infrastructures are part of the basic structure of society. Second, given the nature of infrastructures of being non-excludable and only partially rival means that must remain open to many unforeseeable possible ends to produce shared value, it has been claimed that a social contract over a shared infrastructure should be informed by the Senian notion of capabilities because of the co-essentiality between the capability approach and a form of governance as commons. Consequently, being the Internet a non-excludable and (partially) rival multi-layered infrastructure and thus a field of application of the theory, the article concluded that digital platforms, which are one of the layers, should be governed as commons. Building on these premises, the article then introduced the normative framework of a multi-level social contract informed by the capability approach to guide the concrete design of digital platforms’ different governance structures and claimed that, within the sharing economy domain, platform cooperatives are the most coherent option for operationalizing such a

contract. Finally, the case study of the CoopCycle project has been analyzed as an empirical benchmark to assess the meaningfulness and plausibility of this normative framework.

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First Rule: Keep Pedaling. Co-theorizing with Food-delivery Workers How to Make Digital Platforms Capability-enhancing.⁵⁵

ABSTRACT

In both academic and public debate, there is an increasing consensus that digital labor platforms can have both positive and negative impacts on digital workers' well-being. This article has two aims: the first is to evaluate this impact through the multidimensional lens of the capability approach, taking the food-delivery sector in the city of Verona as a case study. The second aim is to involve selected riders in a co-theorizing process to imagine how platforms should be designed to become capability enablers. To reach them, the research combines two different qualitative methods: a covert auto-ethnography, during which the author worked for a food-delivery platform, and a series of in-depth semi-structured interviews, inspired by the dynamic public reflective equilibrium technique. In addition to contributing to the principles that should govern platforms' design, this article makes two specific contributions to the existing literature on the capability approach. Methodologically, it contributes to the so-called list debate by proposing a synthesizing method for selecting capabilities that combines philosophical and empirical insights. Theoretically, it frames the relevant capabilities which were identified during the research under a meta-capability for meaningful work, opening the path to a multi-level analysis of a flourishing life's different dimensions.

⁵⁵ A version of this article has been published by Taylor & Francis in the *Journal of Human Development and Capabilities*. The reference is: Ghirlanda, P. 2024. First Rule: Keep Pedalling. Co-Theorising with Food-Delivery Workers How to Make Digital Platforms Capability-Enhancing. *Journal of Human Development and Capabilities*, 1–28. DOI: 10.1080/19452829.2024.2380290. The interview protocol for the empirical research has been approved before data collection by the Ethics Committee of the University of Milan. All the interviewees were informed about the interview structure before answering any question and signed the proper informed consensus documentation.

Keywords: gig economy, platform cooperatives, auto-ethnography, dynamic public reflective equilibrium, capabilities list, meaningful work

Workers in the gig economy are those whose job consists of performing tasks on demand. This article focuses, with the expression gig workers, on those whose tasks are organized through digital platforms that act as market-matching systems, connecting them to final customers. In the last decade, ample evidence has shown that these workers experience both positive and negative impacts on their professional and personal flourishing as a result of such work. Gig platforms may foster autonomy and self-entrepreneurship by granting greater flexibility and better pay. At the same time, they have been accused of reducing dignity and job quality by increasing precarity and shifting most of the entrepreneurial risk onto workers. However, only a little of the literature succeeded in capturing this twofold nature of gig platforms and emphasizing how both organizational structures and workers' individual characteristics contribute to determining these different outcomes (see Lamers et al., 2022; Meijerink, & Bondarouk, 2023; Myhill, Richards, & Sang, 2021; Schor et al., 2020; Wood et al., 2019). In particular, there have been only sporadic attempts to involve workers themselves in assessing platforms and considering alternatives (see Zhang et al., 2022).

This article uses the multidimensional framework of the capability approach to provide a conceptual and empirical study of how and when workers flourish in the gig economy. This framework's ability to relate structural factors to individual attributes and agency makes it suitable for the task. The focus is on low-skilled labor platforms, with specific attention to the so-called riders: those who, mainly by bicycle or motorcycle, deliver food that has been ordered online through companies such as Deliveroo and Just Eat. Two procedures are combined: first, selected riders in the city of Verona were interviewed to assess the impact of food-delivery platforms on their opportunities to achieve doings and beings they have reason to value. Second, the same riders participated in a joint theorizing

process to co-design a capability-enhancing platform (see Bueno, 2022 on capability-enhancing versus capability-reducing work). To reach these aims, the capability approach is hence operationalized through a qualitative, agent-centred, and participatory methodology. As a result, the research makes a methodological contribution to the literature by developing a context-dependent list of capabilities and thereby enriching the so-called “list debate” (see Byskov, 2018; Claassen, 2011).

Moreover, starting from the assumption that paid work is a fundamental dimension of life for most people, and thus plays an important role in promoting or restricting human flourishing (see Berger, et al. 2019; Gheaus, & Herzog, 2016), this article also wants to make a foundational contribution to the field. Namely, it frames all the capabilities identified in the research under a meta-capability for meaningful work and includes the latter in Nussbaum’s list of central human capabilities (cf. Holland, 2008 on the notion of “meta-capability”; Weidel, 2018 on the inclusion of a “capability for meaningful labor” in Nussbaum’s list). Indeed, the concept of meaningful work this study adopts is broader than traditional definitions: while “meaningful work” is usually intended to mean any “work that requires thought, skill, and creativity” (Moriarty, 2022: 140), I use it as an approximate synonym for professional flourishing. Therefore, under this umbrella, I accommodate a broader series of sub-dimensions that are related to well-being, such as the main determinants of job quality (see Myhill, Richards, & Sang, 2021).

In what follows, I first provide a brief review of the relevant literature on the gig economy, the capability approach, and its application to work and employment. I then outline the research protocol within the Methodology section and highlight the article’s methodological contribution. In the Findings section, I present the list of capabilities that emerged through the empirical research and the results of the co-theorizing process. In the

subsequent section, I discuss these findings and the study's foundational contribution. The conclusion follows.

1. LITERATURE REVIEW

1.1. The Gig Economy

The gig economy is a business sector characterized by a plurality of platforms and a plurality of actors with different capital endowments, goals, and behavioural profiles. This makes it difficult to summarize the phenomenon. In particular, gig workers are often recognized as the most problematic actors to analyze. The impact of platform work on their individual well-being can vary significantly from platform to platform and is also highly determined by their degree of dependence on platform work (Schor et al., 2020). Accordingly, scholars have expressed different judgments about such aspects of gig work as autonomy, dignity, precarity, voice, and overall job quality (Berger et al., 2019; Lamers et al., 2022; Meijerink, & Bondarouk, 2023; Myhill, Richards, & Sang, 2021; Wood et al., 2019; Woodcock, & Graham 2020; Zhang et al., 2022). Nevertheless, most of them agree that the worst outcomes are produced by so-called “lean platforms” (Srnicsek, 2017): those whose proprietors simply own the technological infrastructure while externalizing all the other entrepreneurial risks to supposedly independent contractors who perform tasks on demand. At the same time, even within lean platforms, distinctions can be made between workers. The condition of low-skilled migrant workers, who are usually considered the most dependent and thus most vulnerable ones, is particularly challenging (see van Doorn, Ferrari, & Graham, 2022).

Among lean platforms, the food-delivery sector is emblematic, and is the specific object of this inquiry. In fact, its twofold character is a good example of the gig economy's duality. Even if food-delivery platforms guarantee a certain degree of flexibility in decisions about when to work, workers are still highly controlled: the nature of the job necessitates

constant coordination, and riders are rated through the apps' reputation systems (Cant, 2020; Waters, & Woodcock, 2017). Namely, the algorithms that guide riders through the delivery process use opaque parameters to set payments and assess them after each delivery with a score that influences the assignment of new tasks. Therefore, considerable pressure is put on riders, especially the most dependent on this job, who are constantly at risk of being penalized if they do not comply with the platforms' requirements (Myhill, Richards, & Sang 2021; Zhang et al., 2022).

In certain European countries, such as Italy, some platforms have recently started to guarantee certain protections in employment contracts, reducing algorithms' arbitrariness—though only after years of mobilization and important court decisions (see e.g. Aloisi, 2021; Tassinari, & Maccarrone 2020).⁵⁶ This study focuses on the city of Verona, which is a medium-sized city in Northeastern Italy with many operating platforms. However, despite the main commercial platforms active in Verona at the time of the research (Just Eat, Glovo, Deliveroo, Mymenu, and Uber Eats) vary somewhat in their contractual arrangements—in particular, Just Eat and Mymenu are the only platforms that actually frame their riders as employees—most of the features I will mention are common to all these platforms.⁵⁷ It is thus essential to consider deeper institutional changes that affect the platform's ownership

⁵⁶ Amongst the main Italian court decisions regarding the food-delivery sector, it is worth to recall: (1) the sentence 26/2019 of the Turin Court of Appeal against Foodora, confirmed by the sentence 1663/2020 of the Court of Cassation and claiming that food-delivery couriers should have the same protections guaranteed by the status of employee; (2) the order 886/2020 of the Tribunal of Florence against Just Eat, mandating the company to provide personal protective equipment to riders; (3) the order of 31/12/2020 of the Tribunal of Bologna against Deliveroo, recognizing the discriminatory character of the company's algorithmic management system; (4) the decree 9/2020 of the Tribunal of Milan against Uber Eats, accusing the company of illegal recruitment practices; (5) the sentence 3570/2020 of the Tribunal of Palermo against Glovo, reinstating a rider and reclassifying him as a full-time, permanent employee; (6) the injunction 234/2021 of the Italian Data Protection Authority against Glovo, condemning the company for the illegitimate and discriminatory data management practices of its algorithms; (7) other two sentences of the Tribunal of Turin against Uber Eats (18/11/2021) and Glovo (20/07/2023), recognizing riders' status as employees; and (8) the sentence of 20/10/2023 of the Tribunal of Milan, imposing Deliveroo and Uber Eats to pay social security contributions for their couriers.

⁵⁷ Note that Uber Eats and Mymenu are no longer active at the time of submitting this dissertation.

(Christiaens, 2024; Scholz, & Schneider, 2016), and not to reduce the entire issue of riders' well-being to whether they are employees or independent contractors.

1.2. The Capability Approach

This study adopts the capability approach as an appropriate basis for research on worker well-being in the gig economy. Its modular and multidimensional character can combine an institutionalist lens with agents' flexibility in determining their life plans (Robeyns, 2017). For this reason, it has already been used in a recent strain of literature to analyze platform work. Lamers et al. (2022) assess the dual impact of algorithmic management systems on workers' dignity in terms of capabilities. Woodside (2021) focuses on the ride-hailing sector, isolating four capabilities and considering municipal institutions' role in enhancing them: "capability to work in safety and with integrity," "capability to voice worker concerns," "capability to balance work and life," and "capability to affiliate with colleagues." Cini and Goldmann (2020) investigate worker mobilization by Italian logistics and food-delivery couriers, building a typology of work-related and non-work-related capabilities.

However, although these studies provide fruitful soil to assess platform work from a capabilities perspective, the current study takes the next step in operationalizing the capability approach. It directly involves gig workers in identifying what are the fundamental dimensions of their flourishing, those on which a capability-enhancing platform should focus.

The operationalization issue has been thoroughly researched in the capability literature (see, in particular, Chiappero-Martinetti, & Roche, 2009) and is in fact connected with the list debate about how to select the relevant dimensions for evaluating people's well-being. This debate traditionally contrasts Martha Nussbaum's (see e.g. Nussbaum, 2011) with Amartya Sen's (see e.g. Sen, 1999) views. Nussbaum considers selection a matter of substantive philosophical theorizing, while Sen views it as the outcome of a process of

democratic deliberation (Claassen, 2011). Accordingly, different lists have been proposed. Some are more abstract, aiming to understand which central human capabilities are valid for every human being (such as Nussbaum, 2011 and, to some extent, Wolff, & de-Shalit, 2007). Others are more context-dependent, inspired by Sen's approach (e.g. Burchardt, & Vizard, 2011; Robeyns, 2003). Expanding on this second strand of literature, Robeyns (2003: 72) presents four methodological moves that can be followed for generating contextual lists of capabilities: (1) unconstrained brainstorming; (2) engaging with existing academic, political, and grassroots literature; (3) engaging with other lists of capabilities; and (4) debating the list with other people.

The main aim of this research was to collect qualitative primary data from which to build a context-dependent list for assessing food-delivery workers' flourishing in a specific urban context. Therefore, its proposed methodology aligns more with Sen's approach and builds on Robeyns' (2003) four steps. However, at the same time, this work is grounded in Byskov's (2018) view on the debate, searching for an innovative "synthesizing method" (121) that integrates empirical with philosophical insights. Indeed, as recalled above, although capability development has been already theorized for platform workers, it has never been theorized with them. Hence, the study also recovers substantive aspects from Nussbaum's account and develops its own philosophically informed participatory methodology in order to involve the final beneficiaries of the empirical research in a genuine co-theorizing exercise. In this way, it contributes to the reconciliation of the two traditional positions on the list debate.

1.3. Applying the Capability Approach to Work and Employment

This article is finally inspired by earlier literature that applies the capability approach to work and employment. Three studies have particularly influenced it. First, Bueno's (2022) distinction between "capability-enhancing" and "capability-reducing work" facilitated assessment of how different working arrangements have different impacts on workers' capabilities. This approach recalls Nussbaum's (2011) theory of justice and the connection between capabilities and entitlements (see also Claassen, 2018), which is a relationship Fia and Sacconi (2019) have already analyzed in the field of corporate governance. Second, the research draws its theoretical framework from Weidel's proposal to introduce a capability for meaningful labor into Nussbaum's list of central human capabilities, i.e. "being able to freely and successfully pursue an avenue by which a person can engage in meaningful labor, interacting with some aspect of nature (as well as other human beings) in a way that develops their faculties, utilizes practical reasoning and provides them with a sense of dignity" (2018: 79; see also Veltman, 2016 and Yeoman, 2014 on the centrality of meaningful work for human flourishing).⁵⁸ Third, McGranahan's (2020) reply to Weidel (2018), according to which democratic governance and shared ownership are essential for promoting meaningfulness in the workplace, offered support for introducing the idea of platform cooperatives as a capability-enhancing organizational structure. Although such an idea needs to be further tested in future research, it seems a promising option to explore. In fact, previous research on work and capabilities, such as Langille (2019), has focused mainly on the capability-enabling role of labor law, not on the proposal of alternative governance models.

⁵⁸ The only reference to work in Nussbaum's list (2011) is indeed made within the tenth capability, "Control over One's (Material) Environment."

Furthermore, other dimensions of labor have been studied through the lens of the capability approach in the existing literature. Since this article proposes a broader interpretation of meaningful work than the traditional one, it takes some of them to be subcomponents of a meaningful working experience in addition to those listed by Weidel (2018): e.g. voice (Bonvin, 2012), affiliation with other workers (see Zimmerman, 2012), and job satisfaction (Leßmann, & Bonvin 2011). Similarly, Gheaus and Herzog (2016) argued that an evaluation of working arrangements through the lens of distributive justice should consider some goods “other than money” that should be available within paid labor time. The authors mention the opportunity to pursue excellence, to contribute positively to the well-being of society, to stand in free and equal relationships with teammates, and to gain social recognition from others. All these goods have influenced my list as well.

2. METHODOLOGY: A SYNTHESIZING METHOD FOR SELECTING THE LIST

2.1. The Need for a New Methodology

This section explains the study’s methodology in accordance with its goals: directly involving food-delivery workers in assessing how platform work impacts their flourishing and in imagining alternative design models for platforms tailored to support this flourishing. To capture gig workers’ lived experience, and thereby analyze a sector characterized by a plurality of actors with different personal characteristics and goals, a qualitative methodology was chosen. In fact, the benefits of qualitative methods, such as semi-structured interviews and focus groups, have already been proved when it comes to reasoning with gig workers about the different aspects of job quality in platform work (Myhill, Richards, & Sang, 2021) and possible changes to improve worker well-being (Zhang et al., 2022). Regarding the food-delivery sector, we will see, for example, how young people working part-time and full-time workers have distinct opinions on these two topics. That is especially true for migrant

workers, who often depend on platforms for their individual subsistence and sometimes have to send part of their earnings back to their countries of origin.

Unlike previous studies, however, this one develops an open-ended list of capabilities as the main outcome of its empirical research. Accordingly, it uses this list both to assess food-delivery workers' experiences and as a basis for co-designing alternative, capability-enhancing organizational models. To develop the list, I combined a covert auto-ethnography and a series of in-depth, semi-structured interviews. Both methods were informed by the capability approach. All the research was conducted in the city of Verona, which I selected for convenience reasons since it is the city where I used to live at the time of the inquiry. At the same time, most of the other qualitative studies of the sector also consider one or more urban contexts (such as Bonifacio, 2021, 2022; Cant, 2020; Timko, & van Melik 2021; Waters, & Woodcock 2017) and Cini and Goldmann (2020) both adopted the capability approach and focus on Turin, Milan, and Bologna, that, together with Verona, are amongst the most populous cities in Northern Italy. Since the results of my research share similarities with those obtained in these contexts, they can be therefore considered at least partially generalizable (see Gobo, 2008b). Note that, despite generalizability was not intended to be the main aim of an exploratory study which presents a qualitative case and develops a context-depending list of capabilities in order to elevate the understanding of a particular phenomenon, finding results comparable with those of other studies adds value to the research. It increases its potential to help future (re)design of policy and platform technologies and to provide a starting point for academics aiming to run similar projects in new contexts.

2.2. Explanation of the Methodology

During the first step of the empirical research, I worked covertly for a private food-delivery platform for three months (October – December 2021). My decision drew on the methods of several previous ethnographic studies (Bonifacio, 2021, 2022; Cant, 2020; Timko, & van Melik 2021; Waters, & Woodcock, 2017). However, the main goal of my covert auto-ethnography (see Gobo, 2008a) that differentiates it from previous studies was to evaluate how the organizational structure of the work impacted my individual well-being. This evaluation provided a starting point for the co-theorizing phase. Namely, the fieldnotes collected during this period represent the first input I used to develop the context-dependent list of capabilities which I later explored in the interviews.

Hence, the second step comprised ten in-depth semi-structured interviews (see Bryman, 2012). I conducted two sets of interviews with riders, one between November 2022 and January 2023, the other in January 2024. Interviewees were selected through a combination of purposive and snowball sampling. The objective of this second step was to discuss (and iteratively refine) my provisional list and to co-theorize how digital platforms should be improved to enhance the listed capabilities. Conducted in public but safe places, such as bars, the interviews lasted between 20–76 minutes, with an average length of 34 minutes. The research protocol was approved by the Ethics Committee of the University of Milan and all participants agreed to audio-recording with a guarantee of anonymity. All the interviews were conducted in Italian or English, transcribed verbatim, and analyzed through the capabilities lens. All the interviewees either worked or had worked for private commercial food-delivery platforms in Verona. A pilot interview was also conducted to test the research protocol.

The interview structure drew inspiration from Jonathan Wolff and Avner de-Shalit's approach in their book *Disadvantage* (2007). It has five stages. (1) A short demographic survey, inspired by Schor et al. (2020), is conducted (see Table 1 for profiles of the participants).⁵⁹ (2) A preliminary explanation of the research project and the capability approach is provided to each interviewee. (3) The interviewee is invited to share unstructured comments on the topic (i.e. the impact of food-delivery platforms on riders' well-being) before being shown the provisional list in order to earn new insights not captured by previous interviews. (4) The provisional list of capabilities, including revisions in light of previous interviews, is debated. (5) The list is continuously refined after each interview. This technique was developed by Wolff and de-Shalit (2007), who however, differently from this study, started directly from Nussbaum's list, to expand on Rawlsian reflective equilibrium and reach what they call a "dynamic public reflective equilibrium" (12). The idea is that, in this way, the interviewees can actively participate in the theory-building process and the list be modified according to their views and intuitions in this deliberative exercise of joint theorizing. Hence, such a technique suits the two research goals. Furthermore, it embraces all the methodological commitments of "grounded normative theory," i.e. comprehensiveness, recursivity, attentiveness to epistemological inclusion, and epistemic accountability (see Ackerly et al., 2021: 5). In such a manner, the technique ensured that the empirical research was normatively relevant and that it would make a foundational contribution to the literature on capabilities. I will return to this topic in the discussion section.

⁵⁹ The demographic survey conducted at the beginning of each interview covered variables connected with the riders' range of variance in the city: age range; geographic origin; biological sex; household status (living with family or alone); whether deliveries were the interviewee's main job and how much he or she depended on deliveries for subsistence; average monthly wage; how many platforms the interviewee had worked for simultaneously; means of transport; knowledge of the Italian language; and educational level.

Table 1 – Profiles of the Interviewees

	Active	Age range	Geo. origin	Sex	Family /Single	Main work	Depend.	Monthly €	Platforms N°.	M. Transp.	Ita. know	Ed. level.
Inter. 1	No	18-25	Ita	F	Single	Student	Partially	400 €	1	Motorcycle	Medium	+ High school
Inter. 2	Yes	26-35	Ita	M	Family home	Coop	Partially	300 €	1 +coop	Motorcycle	Medium	+ High school
Inter. 3	No	26-35	Ita	M	Family home	Student	Extra	150 €	1	Bicycle	Medium	+ High school
Inter. 4	No	26-35	Ita	M	Single	Platform	Partially	300 €	1	Bicycle	Medium	High school
Inter. 5	Yes	18-25	South Asia	M	Single	Platform	Dependent	1200 €	1	Bicycle	Scarce	- High school
Inter. 6	Yes	18-25	Ita	M	Single	Platform	Partially	1100 €	1	Motorcycle	Medium	- High school
Inter. 7	No	18-25	Ita	M	Family home	Student	Partially	500 €	2	Bi/motorcycle	Medium	+ High school
Inter. 8	Yes	18-25	South Asia	M	Single	Platform	Dependent	1300 €	1	Bicycle	Good	High school
Inter. 9	Yes	46-55	South Asia	M	Family abroad	Platform	Dependent	600 €	1	Bicycle	Scarce	High school
Inter. 10	Yes	18-25	South Asia	M	Single	Platform	Partially	350 €	1	Bicycle	Discrete	High school

Source: Author's own elaboration

This format is fully compatible with Robeyns' (2003) suggested four methodological moves for generating contextual lists of capabilities described in Section 1.2., and its two steps were implemented sequentially in order to strike a balance between theory and practice when operationalizing the capability approach. Namely, the covert auto-ethnography has informed the unconstrained brainstorming phase from the outset. At the same time, I engaged with the existing academic literature on the gig economy and compared my provisional list with other lists of capabilities (Burchardt, & Vizard 2011; Nussbaum, 2011; Robeyns, 2003; Wolff, & de-Shalit 2007) before conducting the interviews. Then, besides the food-delivery workers I interviewed, I debated the list at a theoretical level with other scholars during conferences, thematic seminars, and informal discussions.⁶⁰ Therefore, drawing on Byskov's (2018) reconstruction of the different strategies for selecting capabilities, this new synthesis of empirical and philosophical methods provided both normative and procedural justifications for the proposed list. The significance of this methodological contribution to the literature on the capability approach lies again in how it is based on the open-ended construction of context-dependent lists, through philosophically informed participatory methods, in order to overcome the list debate. For a discussion of the study's possible limitations, see Appendix A.

⁶⁰ In particular, I thank Enrica Chiappero-Martinetti, Ingrid Robeyns, Rutger Claassen, Nadia von Jacobi, Massimiliano Vatiere, Morten Byskov, Matthias Kramm, Thomas Stephens, and Cherise Regier. Moreover, I also thank the participants of the session "Work Capabilities and Human Development" of the 2023 HDCA Conference, the participants of a thematic seminar organized by Ingrid Robeyns during my visit to Utrecht University, and all the teachers and participants of the 2022 HDCA Summer School.

3. FINDINGS: THE FUNDAMENTAL DIMENSIONS OF FOOD-DELIVERY WORKERS' FLOURISHING

The articulation of the two steps resulted in the following list of capabilities, whose items have been recognized as the essential components of a meaningful working experience for food-delivery workers in the context analyzed:

1. Health and workplace safety: being able to work without endangering physical health.
2. Mental health at work: a) Work-life balance: being able to work in a predictable way without suffering coercion and pressure from algorithmic management systems while preserving a certain degree of autonomy. b) Self-respect: being able to work without feeling stigmatized and discriminated against.
3. Affiliation with other workers: being able to enter into meaningful relationships with other workers as a precondition for collective action.
4. Participation in the governance, influence, and voice: being able to participate in the governance of the platform and make your voice heard.
5. Working in a law-abiding fashion and under a protective labour legal framework: being able to work in compliance with the law and protected by the law itself.
6. Job satisfaction: being able to pursue a certain degree of specialization and excellence while working, contribute to the well-being of others, and enjoy the work experience.
7. Access to relevant information: being able to access relevant information as a precondition for critically reflecting on the corporate organizational structure, adopting resistance strategies, and imagining alternatives.

These are also the definitions I used to make the capability language accessible to the interviewees. In accordance with the study’s objectives, each dimension of the proposed list has represented an occasion both to evaluate riders’ working experience in Verona and to discuss jointly how this experience could be improved by alternative platform models and by better regulations and public policies. The results can therefore inform future actions, both bottom-up and top-down, to shape food-delivery platforms in a capability-enhancing way. The options that emerged are summarized in Table 2.

Table 2 – Strategies for Turning Food-delivery Platforms into Capability-enhancing Institutions

Better Regulation and Public Policies	Platform Improvements and Alternative Organizational Models
Leveling the playing field (particularly at the municipal level)	Improving safety standards; guaranteeing some of the benefits of the employment status; keeping better track of riders, and intervening when necessary
Fixing the minimum wage for platform workers	Guaranteeing a minimum hourly wage and a minimum number of working hours (then leaving space for individual autonomy)
Monitoring to guard against anti-unionist practices	Guaranteeing the right to log off and the right to unionize
Creating public spaces where riders can rest, repair their means of transport, and obtain legal advice	Designing spaces for and with riders that allow them to encounter and communicate with one another
Allowing food-delivery workers to renew their residency permits	Insuring against theft and damage, or providing the means of transport directly; designing contracts that make riders eligible to renew residency permits

In partnership with platforms, organizing courses on the Italian language and the Italian traffic code (especially for migrant workers)	Disclosing relevant information and creating the conditions for skill development
Directly sustaining and partnering with platform cooperatives	Platform cooperatives owned and managed by riders themselves

Source: Author's own synthesis and elaboration of the interviews' findings

(1) *Health and workplace safety*: Health is a traditional item within capabilities lists and deals with the individual capacity to live a life of standard length in good health (Burchardt, & Vizard, 2011; Nussbaum, 2011; Robeyns, 2003; Wolff, & de-Shalit, 2007). In the context of the gig economy, it can be better specified as the gig workers' opportunity to perform their tasks without jeopardizing their physical integrity (Woodside, 2021). However, as some of the literature cited in Section 1 confirms, commercial platforms may be heavily criticized for their poor working conditions and for creating risky competition for the assignment of tasks between workers (Myhill, Richards, & Sang 2021; Wood et al., 2019; Woodcock & Graham, 2020; Zhang et al., 2022). In particular, food-delivery workers are often described as being pushed to overwork and ride their bikes and scooters dangerously to outperform their competitors, ignoring exhaustion and bad weather conditions (Cant, 2020). This situation clearly emerged in the interviews:

One day, there was a terrible wind that forced me to stop during a delivery because I risked falling off my motorbike several times. I told it to the platform, and they started to push me into going on, saying that the other riders were still working.

(Interviewee 6)

Moreover, platforms are reported to guarantee no sick leave and take very few precautions to monitor and preserve their workers' safety, especially women's:

Safety standards are embarrassing. Speaking of my personal experience as a woman, one day a client was trying to bring me inside his house, and I had to hit him with my helmet. They should keep better track of your route during working hours, give you the possibility to signal potential dangers, and intervene if they suspect there is any problem.

(Interviewee 1)

(2) *Mental health at work*: The capability for mental well-being is connected with the previous one, but it exists independently (Robeyns, 2003). Applied to gig work, it has two main sub-dimensions: a) work–life balance and b) self-respect. Concerning the first, after working as a rider myself and conducting the interviews, I have come to understand how predictability and autonomy—which I had thought of as two different capabilities—are actually two sides of the same coin and mirror food-delivery workers’ behavioral complexity. Those who are forced to make delivery their full-time occupation tend to suffer more from the structural precarity of platform work and the related competition between workers (see Myhill, Richards, and Sang 2021; Schor et al. 2020; Woodcock and Graham 2020; Zhang et al. 2022). That is especially true for migrants, who often lack alternatives in the conventional labor market (van Doorn, Ferrari, and Graham 2022), but, increasingly, also for local people lacking other constant sources of income. If riders aim to earn a living, they must give up the possibility of logging off from platforms and, particularly at the beginning of their working experience, reorganize their schedules around the platforms’ periods of demand in order to increase their ratings (Cant 2020). Therefore, when asked how to improve platform work, some interviewees mentioned higher predictability and a guaranteed minimum number of working hours, i.e. hours not assigned competitively.

Moreover, while platforms claim they foster self-entrepreneurship, their same business model essentially relies on this core group of contractors who are available to accept

whatever task is assigned to them. That's the only way they have to match demand and supply in real time (see Meijerink and Bondarouk 2023; Woodcock and Graham 2020). Accordingly, some platforms have been explicitly criticized for benefiting from those who behave like traditional employees while avoiding the related costs (Schor et al. 2020; Zhang et al. 2022). Another partial solution to this problem that emerged during the interviews is thus the idea of fixing an hourly wage as a basis instead of the predominant piece-based remuneration system, similar to the approach implemented by Just Eat. In this way, all riders would have at least the means to live a decent life, with no-one forced to stay connected for long hours just to earn a living:

I am doing this job because this is my only option. As an old migrant worker, nobody would give me another job. But, to do this work, I have to accept some bad conditions. There are too many riders and not enough work for everyone. We must pay for everything: phones, bicycles, and even delivery bags. Moreover, I must often stay logged in for many hours to receive a few orders and I am not paid for the time I spend waiting for orders. Therefore, I would prefer to receive an hourly wage instead of being completely paid by the piece.

(Interviewee 9)

However, gig workers who do not intend to transform their gigs into their full-time occupation are usually reported to appreciate the flexibility and less hierarchical organizational structure that platforms can offer: the possibility of working only when one has time and refusing tasks at the last minute without providing any explanation (see Berger et al., 2019; Lamers et al., 2022; Meijerink, & Bondarouk, 2023; Schor et al., 2020; Wood et al., 2019; Woodside, 2021). In the food-delivery sector, this is typically the case for young people looking for a supplementary source of income, such as students. A capability-enhancing platform that wants to meet the needs of both categories of worker should thus balance the need for predictability with the quest for flexibility. This duality is testified by the interviewees' answers:

At the beginning of your work experience, you must accept everything to scale the rankings regardless of bad weather conditions or inconvenient times. It seems that the algorithm tests you before giving you much flexibility, and you must accept the mechanism. But, if you think about it, you cannot perceive this as a real benefit. It is like normalizing something that should be unacceptable.

(Interviewee 4)

Hearing the answers of the other interviewees, I agree that probably platforms should guarantee a minimum number of working hours. At the same time, I must admit that, for me, it is very good to have a flexible schedule. I can stay at home and wait for the orders from there or cancel them when I have other things to do without having to explain anything. In this sense, I never suffered psychological pressure to work.

(Interviewee 6)

Concerning the second aspect, self-respect, another possible impact is related to the social stigma that is often associated with platform work. (On the importance of social recognition, see Gheaus, & Herzog, 2016.) Platform work has been accused on several occasions of strengthening implicit biases and favoring the instrumentalization and devaluation of workers (Berger et al., 2019; Lamers et al., 2022; Myhill, Richards, & Sang, 2021; Zhang et al., 2022). Accordingly, some of the interviewees, particularly migrants, complained about restaurants, clients, and even casual drivers who lacked respect for them:

Restaurants make me wait a lot in comparison to other riders. For example, they often tell me to renounce the orders even if I am waiting there for a long time and they know I will not be paid if I cancel the orders.

(Interviewee 8)

(3) *Affiliation with other workers*: Almost all scholars who have developed lists of capabilities (or primary goods) consider opportunities to establish relationships with other

people and engage in collective agential practices to be an architectonic dimension of a flourishing life (Burchardt, & Vizard, 2011; Gheaus, & Herzog 2016; Nussbaum, 2011; Robeyns, 2003). Some have even argued that affiliation is a “fertile functioning,” meaning that meaningful social relations are essential for achieving other functionings, such as mental well-being (Wolff and de-Shalit, 2007: 138). This dimension has also already been explored in the work context from a capability perspective by e.g. Zimmerman (2012). However, in the gig economy, the capability for affiliation becomes even more crucial due to the unique way in which platforms impact workers’ personal and professional flourishing (Woodside, 2021). The atomization that algorithm-based management systems impose and the breakdown of traditional workplace boundaries make it particularly challenging to form meaningful social connections with colleagues and develop collective solutions to shared problems (Myhill, Richards, & Sang 2021; Woodcock, & Graham 2020; Zhang et al., 2022). Nevertheless, despite platforms’ documented anti-unionist strategies and the harsh competition that online reputation systems are supposed to create,⁶¹ on several occasions food-delivery workers have shown an ability to engage in mutual practices of workplace solidarity, mobilize, and envision better alternatives together (Cant 2020; Cini, & Goldmann 2020; Tassinari, & Maccarrone 2020). I have directly experienced this kind of solidarity:

I have been working on the platform for three weeks now, and I have not yet been assigned a delivery in my shifts. I always spend the whole hour on my bicycle going around the city centre, but nothing comes. So, I decide to stop another rider outside a McDonald’s, a supposed competitor, and ask him why I am not getting orders. He takes my phone, looks at the application, and tells me that I don’t have the automatic assignment of the orders active. This is a function according to which the platform

⁶¹ For example, chatting with another rider outside a restaurant while I was waiting for an order, I discovered the platform for which I used to work had accepted me because at that time many accounts had been deactivated due to a major strike after a wage reduction in the city.

does not make you an offer but directly assigns the orders, and you have just a few seconds to decline. Apparently, no orders are received without activating it. I turn it on and a minute later I am called from a restaurant across the street. Double delivery. It begins.

(Fieldnote, 30/10/2021)

Accordingly, some interviewees emphasized that any capability-enhancing platform should provide spaces for encounters and communication between riders:

Other riders are helping me a lot, in particular the Casa del Rider⁶² group. Without speaking Italian and having other people who care about you, the situation can be very bad. As a migrant worker, I am very lucky to have these friends who are always ready to help and explain to me the most critical aspects of the job. I think the project should become something more institutionalized in the future because it is extremely helpful.

(Interviewee 5)

(4) *Participation in the governance, influence, and voice*: Even this capability, adapted from Burchardt and Vizard (2011), is particularly relevant for gig workers' flourishing in the food-delivery sector. As the literature review noted, a central feature of algorithmic management systems is opacity, which results in a lack of any real opportunities for workers to understand and have a say in how their jobs are organized (Myhill, Richards, & Sang, 2021; Zhang et al., 2022). Consequently, commercial platforms' food-delivery couriers do not own the "capability for voice" (Bonvin, 2012; Woodside, 2021). Their only

⁶² Casa del Rider is a project recently started in Verona by a group of food-delivery workers and local associations. The aim is to build a house for riders where they can rest, charge their phones, repair their means of transport, go to the toilet, wait and drink something hot during cold and rainy days, and find help with understanding all the legal aspects of the job. The group is also urging the municipal government to provide a proper location for the project and directly take on some management responsibilities.

option, if dissatisfied, is quitting the job—assuming they have better alternatives. To give gig workers a greater voice and more opportunities for self-determination, a new trend in the literature proposes platform cooperatives as an alternative organizational model: platforms that are owned and managed directly by their workers and users (Christiaens, 2024; Scholz, & Schneider 2016).

This is one of the main strategies for transforming food-delivery platforms into capability-enhancing institutions (see Bueno, 2022) which I discussed with the interviewees. Despite initial doubts related to the novelty of the proposal, many of them expressed enthusiasm for its possible implementation and agreed that questioning the ownership of platforms is important for improving riders' well-being. Due to the sector's increasing size and relevance, some also argued that public institutions should play a complementary role, supporting platform cooperatives in their competition with capitalist platforms by leveling the playing field. Moreover, scholars like McGranahan (2020), and even Wolff and de-Shalit themselves (2007: 146), have already claimed that democratizing firms' ownership structures can enhance work's meaningfulness and improve workers' capabilities in general. Some of the comments from the interviewees follow:

I think public institutions, particularly at the municipal level, should support these cooperatives and that, in general, the municipal level is the right level to act on for regulating the food-delivery sector because it's the level at which the service is offered to consumers.

(Interviewee 7)

I believe the best option would be a platform managed by someone who has been a rider in the past and knows the job. Perhaps not all riders want to directly participate in the governance of this platform, but they should be surely considered. I don't know how—perhaps through internal surveys or electing their representatives. However,

this idea should not overshadow the necessity of better regulation from public institutions.

(Interviewee 1)

Another reason why Verona is an interesting case study is that it has recently appeared there the project of a cooperative of food-delivery workers called Food4Me. Note that we are speaking about a small business, which relies on offline interactions among riders and with restaurants to operate and where most riders also have another job. Thus, it is still unable to compete with the main players of the sector and to provide strong supporting evidence in favor of the greater capability-enhancing role of platform cooperatives. Nevertheless, I decided to interview one of its members to ask his opinion. Indeed, since he simultaneously worked through a private commercial platform, he was a suitable candidate for an interview and for providing an informed comparison between the two different organizational structures:

At Food4Me, everyone receives an hourly and fair wage, and Confcooperative⁶³ helps us write the contracts. At the same time, there is also flexibility because the work environment is familiar, and the necessities of everyone are considered. There is a direct relationship between us, unlike in commercial platforms where everything is mediated by an algorithm. Moreover, proper safeguards for workers are in place. For every problem, we speak, look for, and together organize a solution.

(Interviewee 2)

(5) *Working in a law-abiding fashion and under a protective labour legal framework:*

This capability is an adaptation to the gig economy of an item Wolff and de-Shalit (2007) added to Nussbaum's account. In this context, it is related to the capabilities for health and

⁶³ The Italian Confederation of Cooperatives, a national association representing, assisting, protecting, and auditing affiliated cooperatives based in Italy.

workplace safety and for mental health at work, emphasizing that food-delivery workers should have a genuine opportunity to work without constantly breaking laws (e.g. the traffic code) or continuously falling outside the labour law's perimeter of protection. This happens, for example, when platforms exploit legal loopholes to avoid guaranteeing their workers the protections employees enjoy. One possible solution to the first issue, which I discussed with the interviewees, is to hold platforms responsible for monitoring compliance and for working with municipal institutions to provide courses on the Italian traffic code (especially for foreign riders). Regarding the second issue, the literature again presents the case of migrant workers as especially problematic (van Doorn, Ferrari, & Graham 2022). The interviews confirmed this. In particular, some interviewees mentioned that being a rider is usually not even considered an eligible job when applying to renew a residency permit because of the low salary and the lack of stability, even though it is often one of the only employment options migrants can find in the labor market:

The contract is not valid for the residency permit because it is not a proper contract with safeguards and protections and the salary is too low. Moreover, taxes are borne by workers, not companies. When you apply for a renewal of the residency permit, public officials tell you that you need to find another job since this is not suitable for the scope. They should do something and push platforms to change this situation.

(Interviewee 5)

Additionally, I directly suffered from the externalization of the entrepreneurial costs that characterize food-delivery platforms, including the cost of purchasing bikes or scooters. Companies do not provide them and do not offer any insurance against theft or damages:

I just began my shift; the evening is very cold, and I keep pedaling to keep warm. I get an order: it is from a small restaurant I don't know. I rush there and immediately quarrel with the owner. The customer ordered without paying online, she will give me

the money when I arrive. I must pay with money from my cash fund, but I don't have enough cash with me. The owner does not accept credit cards. I go out, withdraw money from the nearby bank, come back, and pay. I have already lost at least five minutes, which is money for a rider. He gives me the pizza; I accept the order and leave. The delivery point is 15 minutes away by bicycle, which is a lot in an hour's shift, and a little outside the city centre, in a somewhat dangerous neighbourhood. When I arrive, my shift is already halfway over. I have to hurry. I ring the bell and a girl tells me to go up to the first floor. She should come down, but I don't have the time to argue. "I just have to do a ladder, it's useless to waste time tying the bicycle," I think. I go in, take the money, and, after less than a minute, I'm out. Suddenly, I realize that a guy has got on my bicycle and is five metres from me. I run after him with the backpack on my shoulders, but it is impossible to catch him. I get agitated; I think about whom to call, but the insurance provided by the platform only covers damages to third parties. There is nothing to do; the shift is over. I walk home.

(Fieldnote, 21/11/2021)

(6) *Job satisfaction*: Although platform work is often considered a low-skilled and temporary job, there are studies arguing that it can even be a source of personal fulfilment, satisfaction, and growth opportunities (Berger et al., 2019; Lamers et al., 2022; Meijerink, & Bondarouk, 2023; Myhill, Richards, & Sang, 2021; Schor et al., 2020; Wood et al., 2019; Woodcock, & Graham, 2020). Accordingly, there is evidence that some riders aim to achieve a degree of specialization while working and learn how to use algorithmic management systems to their own advantage (see e.g. Bonifacio, 2021, 2022; Timko, & van Melik, 2021). Although this dimension was not part of the list when I started conducting the interviews, I later chose to include job satisfaction, drawing also on existing literature on the capability approach and the primary goods framework (e.g. Gheaus, & Herzog, 2016; Leßmann, & Bonvin 2011; Weidel, 2018). Indeed, many interviewees confirmed their commitment to

pursuing excellence in this occupation and to earning more money by continuously improving their skills. Furthermore, some interviewees mentioned their genuine care for customers and concern for the quality of the service; while others caused me to consider how this kind of work can even be enjoyable for casual workers. This was particularly true during the lockdown period, when riders were among the few people allowed to leave home because they were doing an essential job. Below are some answers that stress these points:

When you do a job, you want to do it well. I am annoyed if they bring me a cold pizza. You feel that you are providing a service, and you want to do it well. It's not that people shouldn't use platforms; it's that safeguards are needed. Restaurants have the right to sell food through platforms, and customers have the right to use them. I do not think boycotting the system is the correct answer.

(Interviewee 1)

I didn't start this job because I needed to earn a living; I started it to be allowed to leave home during the lockdown. Then, I appreciated earning some money for it. There was less competition and more of a possibility to earn money. But what I liked most was the opportunity to do physical exercise and be outside. I also enjoyed experiencing the city's empty streets during that period, which offered a different perspective on the town where I had been living for many years. Of course, I agree with the answers of the other interviewees: the job remains very precarious, and I would never work as a rider at forty years old. This is a good job for students.

(Interviewee 3)

I have been working for the platform for seven months and I like very much the flexibility of the job and being free in deciding when I want to work. I am also satisfied with the earnings I can get through platforms. I don't have lots of other

opportunities, and I find this a helpful way to make money. I see other riders who are making a lot of money and I want to do the same.

(Interviewee 10)

(7) *Access to relevant information*: As I mentioned while discussing the capability for participation in the governance, influence, and voice, a significant challenge hindering food-delivery workers' flourishing is they know almost nothing about the effective functioning of algorithmic management systems. The literature shows, and the interviews confirmed, how they are often required to accept invasive surveillance practices, such as geo-localization and facial recognition (a feature added to prevent multiple riders using the same account), without knowing precisely how algorithms manage their data and assign deliveries (Waters, & Woodcock, 2017). At the same time, a common experience for food-delivery workers is the disorientation and depersonalization they feel when, having registered on the platforms' websites, they receive the work contracts that they must sign online to have their accounts activated. Just think again about migrant workers with limited knowledge of the Italian language and law (see van Doorn, Ferrari, & Graham 2022). This is also part of the misleading narrative platforms normally use to portray themselves as market-matching systems that merely assign tasks to external providers, while legitimizing their hierarchical control and abusive surveillance practices (see Aloisi, 2021). Therefore, recognizing access to information as a fundamental dimension of meaningful work, my goals as an interviewer included rebalancing information asymmetries and encouraging food-delivery workers to reflect critically on their work experience with commercial platforms as a first step towards imagining alternatives. In this sense, the interviewees acknowledged the role this and similar studies can play:

The keyword for platforms is mystification. They misclassify the legal status of their workers and, even if they use a very simple algorithm to organize everything, workers

must ignore its functioning because they must find it difficult to make a criticism. I have been involved in trade unions; my boyfriend is a lawyer; and I have a degree in statistics, so I was aware of some problematic aspects. At the same time, I think this interview is really useful for the average rider. I believe it can raise awareness and maybe push food-delivery workers to collectively act to change the status quo.

(Interviewee 1)

4. DISCUSSION: A MULTI-LEVEL ANALYSIS OF THE PROPOSED LIST THROUGH THE CONCEPT OF MEANINGFUL WORK

In addition to its methodological contribution, a new synthesizing method for selecting lists of capabilities, this study also aims to make a foundational contribution to the capability literature. Namely, I propose that all the items which the qualitative inquiry has identified can be subsumed under a meta-capability for meaningful work, which, following Weidel's (2018) perspective, should be added to Nussbaum's list of central human capabilities. The term meta-capability comes from Holland's (2008) research but is used in this article in a slightly different way. For Holland, it refers to those ecological conditions—grouped under the concept of “Sustainable Ecological Capacity”—that are instrumentally necessary as a precondition for developing all the other central human capabilities on Nussbaum's list. Similarly, Nebel and Herrera Rendón Nebel (2018) employ the concept of meta-capability referring to the pre-eminence of agency for human flourishing (see also Claassen, 2018). My usage, instead, refers to a higher-level capability that subsumes a series of sub-capabilities.

Consequently, the items on my list, which together determine the fundamental dimensions of a flourishing professional experience, also contribute to the pursuit of overall human flourishing when their corresponding functionings can be achieved in a certain (flexibly determined) proportion. Note that, while for Weidel (2018) the capability for meaningful labor simply means that people should have the opportunity to experience

meaningful work in certain areas of life—not necessarily paid work—the present article focuses on paid work because of its deep importance and necessity in so many people’s lives. Accordingly, work performed as an employee or contractor, including in the gig economy, must meet a broader series of sub-conditions to contribute to fulfilling the meta-capability for meaningful work. The proposed list is the result of workers’ participation in identifying these sub-capabilities in a specific context of analysis.

Nevertheless, this article has not sought to quantify the extent to which riders should own the listed capabilities. For example, for a well-treated worker even having a circumscribed opportunity for voice or affiliation could be enough. Thus, the study does open an interesting avenue of research for business ethicists on the assessment and measurement of this and other working environments through the lens of the capability approach centered on the involvement of the final beneficiaries. At the same time, the multidimensional analysis of meaningful work I presented and the deliberative and reason-based technique adopted rule out the issue of adaptive preferences. Namely, the possibility that a minimum degree of satisfaction or a willingness to gain some money—often caused by workers’ adaptation to disadvantageous conditions—could justify trade-offs in which some other dimensions are completely sacrificed, potentially corroding work’s meaningfulness itself (see Nussbaum, 2011; Wolff, & de-Shalit, 2007).

Therefore, starting from this case study in the food-delivery sector, the idea that I want to introduce is that a list of capabilities can be nested within another list of capabilities, and that the achievement of higher-level functionings depends on the capacity to achieve the lower-level ones. I try to clarify this idea in Figure 1. Capabilities are thus analyzed to uncover their dual value, both as intrinsically important aspects of people’s (professional) flourishing and as instrumentally necessary for the achievement of other functionings (see Stephens, 2023). I am aware that nesting my list within an extended version of Nussbaum’s

account may invite criticism because there are some apparent overlaps between the two, with a risk of duplication. However, the level of analysis is different. In one case, the list is related merely to the evaluation of corporate institutions and to the identification of the dimensions on which a capability-enhancing enterprise should focus. As a consequence, the capabilities are appropriately qualified to be job-specific. In the other, it deals more generally with overall human flourishing.

By saying this, I do not want to mean in any way that some of the capabilities on Nussbaum's list—such as bodily health—do not have any implication for work and vice versa. For example, general health issues may negatively affect the capability for meaningful work—in this case, corporations may be required to take extra measures to protect workers' well-being. At the same time, the impact of work on people's health often goes beyond the labor domain. I also do not mean that meaningful work cannot be experienced outside of paid work: care work is an emblematic example. The purpose of this article is just to underline how, in the case of paid work, more dimensions must be taken into account to make it meaningful than what is usually thought and that companies have a direct responsibility to promote the possibility of achieving valuable functionings related to these dimensions. Another interesting point is then that the same idea of nesting lists applies even to other fundamental human capabilities, which may be analyzed in their sub-components through the context-dependent application of a methodological and theoretical framework like the one developed for this research. Furthermore, although this study uses the framework to give content to existing capabilities, it may be also used in future research to identify new capabilities and reveal new relationships between capabilities (e.g. some central capabilities may turn out to be sub-capabilities of other central capabilities).

Figure 1 – Nesting Lists of Capabilities: The Case of Meaningful Work

1. Health and workplace safety
2. Mental health at work
3. Affiliation with other workers
4. Participation in the governance, influence, and voice
5. Working in a law-abiding fashion and under a protective labour legal framework
6. Job satisfaction
7. Access to relevant information

Meaningful work =
Professional Flourishing
(cf. Weidel 2018)



**Overall
Flourishing Life**

1. Life
2. Bodily health
3. Bodily integrity
4. Senses, imagination, and thought
5. Emotions
6. Practical reason
7. Affiliation
8. Other species
9. Play
10. Control over one's environment
(Nussbaum 2011)

Source: Author's own elaboration

Finally, I focused in the article on the power relations that characterize food-delivery platforms and how they affect food-delivery workers' flourishing. In this way, I showed that the former cannot be intended just as neutral technologies acting as market-matching systems since different organizational structures determine different impacts on riders. At the same time, there is space for conducting future research on their capability impact on other stakeholders, such as consumers, investors, managers, or even third parties in societies, and for considering different kinds of platforms. Moreover, while gig platforms exacerbate the most problematic aspects of capitalist enterprises (Frenken, & Fuenfschilling, 2021), also corporations in general can be organized in ways that reduce capabilities or that enhance them. Conventional companies, acting as unaccountable and authoritarian private governments, have already been reported to potentially reduce work's meaningfulness (Anderson, 2017). Therefore, this research also lays foundation for a more comprehensive capability-informed comparison of different corporate governance models in terms of the entitlements they guarantee to their stakeholders and how they obstruct or enable the conversion of these entitlements into valuable functionings (see Fia, Sacconi, & Vatiéro, 2023).

5. CONCLUSION

Starting from the growing evidence that gig platforms may have both positive and negative impacts on their workers' well-being, this article empirically studied how human flourishing is affected by the increasingly precarious jobs the gig economy generates. It did this through a qualitative inquiry, informed by the capability approach. In particular, it assessed its case study of the food-delivery sector in the city of Verona through a combination of covert auto-ethnography and in-depth, semi-structured interviews. The main goals of the research were: (1) to evaluate how working for a commercial food-delivery platform impacts its workers' genuine opportunities to achieve doings and beings they have reason to value; (2) to involve

selected workers in a process of co-theorizing about how an alternative platform should be designed to enhance the capabilities the research identified.

The facts that digital platforms can act as capability-enhancing or capability-reducing institutions, depending on how they are organized and on workers' individual characteristics (Lamers et al. 2022), that the urban context is the privileged one for a capability-informed analysis of gig work (Woodside, 2021), and that the agency of gig workers is deeply connected to the development of their capabilities (Cini, & Goldmann 2020) were known. However, the co-theorizing exercise produced new empirical knowledge about what are the dimensions of food-delivery workers' flourishing that should be the focus of a capability-enhancing platform and how such research may benefit from directly involving the relevant stakeholders in identifying these capabilities. At the same time, there is certainly considerable space for future research to study more in-depth the actual conditions under which rider-owned platforms may become capability enablers and promote meaningful work.

Finally, the article makes also one foundational and one methodological contribution to the literature on capabilities. Methodologically, by building a context-dependent list for the food-delivery sector, the research enriches the so-called list debate with a new synthesizing method that can accommodate both philosophical and empirical insights. Theoretically, it frames the dimensions it has identified under a more general meta-capability for meaningful work, which has previously been proposed as a possible extension to Nussbaum's list of central human capabilities (cf. Weidel, 2018). In this way, the study helps to develop and deepen the concept of a capability for meaningful labor. One which workers may realize when they achieve a certain degree of functioning in all its constitutive sub-dimensions.

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Appendix A – Limitations of the Study Discussed

A purposive sampling technique was combined with snowball sampling in order to diversify the pool of interviewees in response to the range of variance of the riders' workforce.

Unfortunately, due to a lack of data about the exact composition of the workforce in Verona, I had to rely on what I witnessed and on talking to other riders during my own working experience. Nonetheless, despite this attempt to diversify the sample, the interviewees' answers showed a certain regularity and indicated that the main variable affecting riders' well-being is their degree of dependence on platform work/if platform work is their main occupation. Indeed, this conversion factor often clusters with other determinants of vulnerability, such as a lower educational level, a migration background, migrants' difficulties in understanding the local language, and the use of the bicycle as a means of transport. Those are some of the other main conversion factors that differentiate the sample. Therefore, due to the relative homogeneity of the answers, theoretical saturation was reached after ten interviews (Gobo 2008b).

However, the sampling technique could be criticized. Arguably, it facilitates the selection of participants who share a negative judgment of food-delivery platforms, yielding a false perception of theoretical saturation. Even the interview method could be considered biased: encouraging critical problematization, starting from a list of capabilities, favors the emergence and discussion of the most negative aspects of platform work. Nevertheless, previous research using qualitative methods to assess the multidimensionality of job quality in the gig economy (Myhill, Richards, & Sang 2021), or involving gig workers in the design of alternatives (Zhang et al., 2022), was conducted with a similar number of participants from the food-delivery sector and yielded quite similar results. On the other hand, as the Findings section reported, this study's interviewees actually exhibited some variation in their initial positions, connected with their different conversion factors. This variety of experiences,

captured thanks to the use of the capability approach, is exactly what allowed me to refine the list iteratively by adding new perspectives. The study's use of the dynamic public reflective equilibrium technique simply meant that, once assessed, these various experiences could be reconciled during face-to-face discussions in order to achieve the research goals and produce the relative contributions to both the gig work and the capability debate.

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