

Mapping out Cooperative Digital Platforms: A Conceptual View

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Abstract

Cooperative digital platforms are considered an alternative to corporate-controlled platforms because their governance structure allows multiple stakeholders to voice their opinions and participate in organizational decision-making processes. These platforms a priori, have more beneficial socioeconomic impacts because they can engage members via more democratic and participatory models. However, the existing literature evaluates these platforms as instances of a homogeneous phenomena. This article proposes the existence of different models of cooperative digital platforms based on the theory of partial organizations, utilizing a mapping organized in four quadrants. To structure this mapping, we adopt the main elements of the concept of partial organizations, illustrating the proposal with cases. The study contributes to the field of platforms and cooperative organizations, opening new perspectives for study and unveiling a wide variety of digital platform models. The mapping also stimulates empirical studies to verify the relevance of the proposed mapping.

Categories: Social Innovation, Digital business

Keywords: cooperative, platform cooperativism, cooperative platforms, partial organizations, digital platforms, sharing economy, platform, digital strategy, strategy, ecosystem

Introduction And Background

Corporate platforms within the broader platform economy or digital economy have become major conglomerates [1,2]. Although they have created direct and indirect jobs for millions of people around the world [3], their predatory stance has consistently favored the concentration of property, and capital to the point of reshaping our views on social, market, and labor relations [4-8] with the emergence of concepts such as the “Uber(-all) economy” [9,10] or the “uberization of the economy” [3,11]. Those platforms have been castigated as the “dark side” of the collaborative/sharing economy [12] or “neoliberalism on steroids” [13], “hijacking” the sharing economy [14] since they overshadowed genuine pro-social and pro-environmental initiatives.

In sum, some platforms have been pressuring established economic practices, as well as social and labor relations [15,16], fostering a profound transformation in the design of new organizations [17]. This new reality has stimulated adjustments to traditional business models [18]. Now that the drawbacks of some platforms have been acknowledged, new configurations are needed to improve the current platform economy.

One of these possible configurations is related to the trajectories of platforms that are based on cooperative institutions in terms of ownership and governance [19]. In this model, the social actors become essential in the organization’s construction [20]. The main objective of platform cooperatives is to promote the economic development of their members in a participatory, self-governing, and democratic way [21]. The term “platform cooperatives” has been used by researchers and activists who ponder the democratization of the governance of shared economy platforms [1,2,22,23]. For Vallas and Schor [8], there are opportunities to develop social enterprises or “chameleons” with a socio-market objective supported by platform cooperatives in favor of more participatory, equitable, and democratic development. In this perspective, Ghirlanda and Kirov [24] argue that platform cooperatives have the potential to contribute to achieving sustainable development goals set by the United Nations, such as “End Poverty” and “Decent Work and Economic Growth.”

Theoretical and conceptual models of sharing economy platforms have been developed since Martin et al.’s original call [1]. Previous studies have looked at platform cooperatives as formally organized cooperatives or assumed similarity when encountering cases that did not organize as formal cooperatives. Yet, platform cooperatives assume a variety of formats [25]. Therefore, the research questions are as follows: How do cooperative platforms differ? How to map different cooperative platforms in a integrated framework?

The main objective of this article is to propose a typology of cooperative digital platforms. Our premise is

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that cooperative digital platforms, widely called cooperative platforms, can be structured through different configurations of organizational elements. As a result of this insight, we propose a mapping of how cooperative digital platforms are structured into different organizational configurations. We notably use the partial organization framework and its key elements of association and hierarchy [26] to show how platform cooperatives differ along those two dimensions and how divergences along those lines further create differences in platform cooperatives' rules, monitoring, and sanction schemes. We chose this theoretical approach because it reveals that organizations may have different characteristics according to how key elements are used and activated. Our proposal rests on the assumption that platform cooperatives also differ based on their use of these elements.

Such a typology is relevant for several reasons: First, the extant literature does not offer a comprehensive classification of cooperative digital platforms. Second, researchers in the broad field of digital platforms face difficulties in classifying their studies and directing the results to specific forms of digital platforms. Third, our proposal opens up several directions for future studies, allowing researchers to make specific contributions to each form of digital platform. Fourth, this study contributes to extant research since platform cooperativism shapes an important debate about alternatives to the platform economy controlled by so-called "sharing or collaborative economy" corporations such as Uber, Airbnb, or iFood, among others [21,20], which have very little to do with sharing and with collaboration between peers or between peers and organizations. Instead, since platform cooperatives involve inherently "prosumers," i.e., users who also provide different types of resources (e.g., capital, time, service), the cooperative platform model is most aligned with the original perspective on the collaborative economy as encompassing resource circulation systems that enable users to endorse a provider role either directly or through an intermediary [27,28]. Furthermore, cooperative platforms can have decentralized and hierarchical governance between different stakeholders seeking mutual benefits [24].

Despite recognizing that digital platforms facilitate the sharing economy, we know very little about the role of cooperation in the business models of digital platforms to achieve goals set by worker and consumer organizations [29]. Thus, this article is justified because it presents a theoretical proposal in addition to illustrative cases, bringing insights into the variety of platform cooperative models and highlighting new research opportunities. From a managerial perspective, this paper contributes to the understanding of how the various types of platform cooperatives are constituted and how they harness organizational elements to develop economically.

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Review

Digital platforms

We define digital platforms following De Reuver, Sørensen and Basole [30] as "external technology-based systems, executable by software on multiple sides, offered as applications, solutions or systems for end-users" [30]. They are characterized by digital technological artifacts such as websites, blogs, virtual messaging networks, mobile apps, and social networks with text, content, images, and videos that enable quick sharing of information, products, and services [12]. On the front-facing end, digital platforms are technological innovations that connect, broker, engage, execute, and support collaborative interactions, communications, sharing, and transactions via various social and business functions [31]. In other words, a digital platform is a multifaceted technological actor that provides tools for product, service, and business development [3,32].

Digital platforms are foundational to the platform economy. Although some are exclusively corporate initiatives, others morphed into third-party, match-making agents to provide a marketplace for consumer-to-consumer, business-to-consumer, or even customer-to-business transactions in rhizomatic interactions. By involving prosumers, they have operated in the gray zone of conventional labor relations, tax, or fiscal policies and have had mixed results [33,34].

On the one hand, digital platforms eliminate barriers, mediate sharing, and bring organizations, consumers, and providers together [35,36]. These technological agents that comprise the new economy have disrupted traditional markets and economies through their innovation [1,3,8]. Meanwhile, Vallas and Schor [8] emphasize a variety of organizations generated from the proliferation of platforms and applications supported by the Internet. New groups of individuals, organizations, and institutions with a focus on community-based platforms that share, collaborate, and or consume through these digital solutions have also arisen [34,37]. These individuals become consumers, providers, users, and complementary organizations within a universe full of virtual entities that act as chameleons, adapting to different institutional environments [8,36]. Therefore, digital platforms can develop a reliable, balanced, self-governing, and cooperative environment for the intermediation of products or services [37,38]. These platforms create conditions for new participants, characterized by workers, consumers, developers, and entrepreneurs [8,24,39].

On the other hand, they have been criticized for their claims to empower users and producers, which cannot be considered entirely true [1]. Their operation favors the concentration of property, in which large companies supported by platforms shape the expansion of investments and labor relations [5]. As such, they are taking over large portions of society's infrastructure, with strong predispositions to monopolize economic activities [7,25]. In the face of these ills of neoliberalism-driven platforms, platform cooperatives have been proposed as interesting alternatives [1,8]. In the next sections, we introduce the concepts of cooperative organizations before delving deeper into platform cooperativism and cooperative platforms.

Cooperative organizations

According to the International Cooperative Association [40], a cooperative can be defined as “an autonomous organization of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled enterprise” (p. ii). Due to their simultaneous focus on economic, social, and cultural needs through solidarity-based practices and due to their democratic governance mechanisms [41], cooperatives are core, albeit not exclusive, components of the broader social solidarity economy [42] ecosystem. In fact, cooperative organizations are based on values of democracy, equality, solidarity, equity, self-responsibility, and self-help, while cooperative members share values of openness, caring for others, social responsibility, and honesty [40]. More specifically, cooperatives follow the seven principles outlined by International Cooperative Alliance (ICA) [40] to operationalize those values: voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education, training and information, cooperation among cooperatives, concern for community.

More recently, with the emergence of novel technologies and platforms, cooperatives have started to migrate online, and some are even digital native brands. This evolution has been captured by an emerging research stream [20,21,24,25,29] and has given birth to the platform cooperatives and cooperative platform concepts that have become core constituencies of the cooperative digital platform ecosystem.

Platform cooperativism and cooperative platforms

Platform cooperativism refers to platforms whose governance structure is open to a broader group of stakeholders [43]. In contrast to the platforms led by large corporations, Scholz [21] drew on ICA principles to propose 10 platform cooperativism principles [44]. For instance, it involves collective member-based ownership and decent pay and income security for platform workers. Other principles refer to transparency and data portability, allowing members to exit the platform and delete their data. In the opposite direction to corporate platforms, the cooperativism principles also include protection against arbitrary behavior and rejection of excessive workplace surveillance. Democratic ownership and governance are thus pillars of platform cooperativism [43], along with principles of social responsibility, positive impact, and open technology [45].

This model harnesses the power of scale of platforms to gear them toward community welfare through governance mechanisms that allow a balanced distribution of results among stakeholders. People who contribute to value creation are co-owners and participate in decisions [46]. Thus, the shared ownership of the platform allows the value produced to be redistributed to the people who created it, instead of being essentially transferred to a restricted group of venture capital investors [47]. More broadly, platform cooperativism promotes alternative business models, which transcend traditional capitalism in a digital movement spread by individuals, communities, and platforms [8,48].

Cooperative digital platforms, or more briefly, cooperative platforms, emerge from local communities, and community members themselves define the rules of operation, monitoring practices, as well as reward and sanction schemes [49]. If users succeed in structuring their platforms and operating them at scale, they can keep track of their data and benefit from network externalities, as occurs on purely commercial platforms and those coordinated by corporations [5]. In addition to their own members, the community can strengthen cooperative principles to advance the platform members' well-being as they enter the digital economy [24,35].

Cooperative digital platforms can be considered an innovation to business models [35]. They provide value propositions and operational models that are different from the ones featured by corporate platforms, even when using the same technology and/or offering the same product or service [20]. This type of initiative provides a sense of community and solidarity, developing a practical alternative to traditional platforms [25] and to their ills [6]. Therefore, in many ways, digital platforms and solutions can be associated with cooperativism, eliminating the distinction between workers and owners, and offering alternative models focused on social entrepreneurship [8,24,35].

Proponents of cooperative digital platforms believe in the importance of democratic governance [45], which acts to protect the collective values and interests of various types of authority, ensuring a plurality of actors and a shared vision of the project [20]. The democratization of the platforms is expected to contribute not only to greater sustainability and social equity but also to support a more equitable distribution of the value created within the sharing economy [1]. In this way, cooperative platforms have the potential to bring together activists, software developers, temporary employees, entrepreneurs, and anyone who uses the Internet and digital technologies to create social, economic, and market changes [8,20,24,25,46].

However, developing cooperative projects on a relevant scale requires agility and efficiency [20], due to conflicting factors with shared governance structures [8]. Efficiently balancing the stakeholder relationships within the platform economy is far from a simple task [46]. It may be appropriate, for example, to distinguish between users with limited interest in a platform, who do not participate in decision-making, from more engaged owner-members, who participate more actively in democratic decision-making processes [1]. The ambitious goals of openness and inclusion of multiple stakeholders are also limited in practical terms by the lack of participation and the initial centralization of cooperative projects [20].

Moreover, it is unclear how (and if) a transition from a more centralized governance structure to a broadly inclusive and collaborative structure can take place [1]. Elements such as collective ownership, transparency, and democratic governance highlight the social character of cooperative digital platforms but are also part of a business model innovation designed to provide a competitive advantage [20]. Despite this, investors can avoid business models that adopt collaborative governance, due to the complications that such models bring to the realization of capital allocation agreements [18]. In addition to presenting low attractiveness to risk capital, the democratic and community character of cooperative business models represents limits of market reach and growth scalability [8,20,50].

Just as cooperative economies are not a recent phenomenon, some practices of platform cooperativism have already been circulating around the Internet [46]. However, theoretical or conceptual models of cooperative platforms have yet to be developed [1]. There are conceptual gaps to fill that will shed light on how hybrid, collaborative and cooperative business model configurations occur [29]. Following Ghirlanda and Kirov [24] recommendations, we present an alternative typology (framework) to better explain the movement of platform cooperativism through the theoretical lens of partial organizations as support for understanding how platform cooperatives can assume different configurations.

Conclusions

Given the lack of a classification of platform cooperatives, this study provides a typology of digital platform cooperatives by using the five elements of the partial organization framework. Platform cooperative initiatives are thus mapped along two axes: the association element and the hierarchy element. More specifically, starting from the premise that cooperative platform models have various configurations, platform cooperatives are structured via different configurations resulting from the definition of the association and hierarchy elements as central elements of the concept of partial organizations. Association and hierarchy define, respectively, how new members join the organization (in this case, platforms) and who participates in decisions about the platform's operations. Based on the combination of these two dimensions, we have mapped digital platform organizations into four ideal types of platform cooperatives. The mapping advances the debate about how to structure and configure digital platform cooperatives as defined by associations, hierarchies, and types of participation.

Our proposal represents an attempt to understand the different kinds of platforms that aim to stimulate cooperation between members and participants. The main theoretical contribution is to propose a mapping with four models with different characteristics regarding the requirements for association and rules on hierarchy and decision-making. Scholz's platform cooperative proposal has been expanded upon in the mapping presented, revealing a wider spectrum of possibilities for cooperation on platforms, as shown by the four models and the illustrative cases described. In addition, the study furthers the discussion about hybrid business models composed of individuals, organizations, and platforms. In short, we also seek to follow the suggestions of previous studies trying to find and propose types of alternative business models supported by platforms associated with the social and economic well-being of consumers and producers.

Therefore, this mapping opens new and diverse research opportunities for the field of cooperative platforms. First, it has unveiled the existence of a wide variety of platform models that occupy different spaces and generate different contributions to the economy and society. Second, based on the proposed mapping, empirical studies can be conducted to verify how these ideal types differ in terms of stimulating engagement and cooperation among members. In addition, the effects they generate for participants can be examined in detail. Third, empirical studies can conduct comparative analyses between platforms controlled by corporations and cooperative platforms to understand their effects on society and the platform economy. Fourth, future studies can analyze how these different models of digital platforms

contribute to minimizing wicked problems and grand societal challenges like poverty, climate change, education, and food security. Fifth, we recommend that future studies follow these digital platforms longitudinally to understand how they change over time and the difficulties they face to produce sustainable results. Sixth, researchers could analyze whether cooperative platforms are able to avoid mission drift in their goals, a typical problem social organizations face. Finally, studies should identify how new disruptive technologies like artificial intelligence and blockchain affect digital platforms' governance and effectiveness.

In conclusion, this study proposed a conceptual typology of a complex framework that still has validity limitations. Elements that assist in structuring and developing cooperative platforms can only be validated by analyzing the relationships of cooperation, collaboration, production, work, and consumption. Consequently, future empirical research can validate our proposal by studying various contexts in which platform cooperatives are being structured.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Douglas Wegner, Alexandre Borba da Silveira, Myriam Ertz

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Disclosures

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