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Transformative Strategies, with Political Impact, for Cycling Logistics. The Case of Som Ecologística

Estrategias transformadoras en ciclogística para la incidencia política. El caso de Som Ecologística

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ABSTRACT

This article analyses strategies adopted by sectors involved in cyclelogistics which are aimed at transforming current models of the Urban Distribution of Goods (UDG) towards a model that gives small local organisations more bargaining power by incorporating values derived from the Social and Solidarity Economy and other transformative economies. We carried out an ethnographic study, including interviews and participant observations, of the Barcelona-based cooperative, Som Ecologística from which we address the strategies followed by this cooperative in terms of: the scaling up processes it has carried out; the development and use of the digital application it uses; its contracting model, which is committed to reversing the masculinization of the sector; and, finally, its efforts to influence local public policies in favour of the decarbonisation of the current UDG model. Our main conclusion is that the strategies followed by Som Ecologística can help to transform the logistics sector by extending the notion of sustainability not only to the production-business sphere, but also to the social and ecological dimension, because the way people use and relate to technology is an essential part of the social transformation of the platform economy.

Keywords: Cyclelogistics, transformative economies, Social and Solidarity Economy, scaling up process, decarbonisation of the urban distribution of goods (UDG).

RESUMEN

Este artículo analiza las estrategias adoptadas desde el sector de la ciclogística para transformar el actual modelo de Distribución Urbana de Mercancías (DUM) hacia un modelo que permita a las pequeñas entidades locales ganar capacidad de negociación, mediante la incorporación de valores propios de la Economía Social y Solidaria y las economías transformadoras. A partir del estudio etnográfico de la cooperativa barcelonesa Som Ecologística, que ha incluido entrevistas y observación-participante, se han abordado las estrategias seguidas en cuanto al proceso de escalado llevado a cabo por la cooperativa, la apropiación y uso que hacen de la aplicación digital cooperativa seleccionada, el modelo de contratación y su apuesta por revertir la masculinización del sector y, finalmente, su esfuerzo

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por incidir en las políticas públicas locales para la descarbonización del modelo actual de DUM. Se concluye que, las estrategias seguidas por Som Ecologística permiten transformar el sector de la logística, ampliando la noción de sostenibilidad no exclusivamente al ámbito productivo-empresarial, sino también a la dimensión social y ecológica, donde el uso y relación con la tecnología es parte fundamental de la transformación social de la economía de plataformas.

Palabras clave: ciclología, economías transformadoras, Economía Social y Solidaria, proceso de escalado, descarbonización de la Distribución Urbana de Mercancía (DUM).

INTRODUCTION

Between 2010 and 2020, the new consumer practice of online shopping or e-commerce underwent considerable consolidation and expansion, especially following the COVID-19 pandemic. As a non-face-to-face shopping method carried out through electronic devices, e-commerce saw an increase in online sales of up to 50% in some markets ([Boston Consulting Group \[BCG\], 2020](#)). Consequently, there were major repercussions on two key sectors involved in the purchasing process: 1) the platform sector, comprising companies that facilitate online product purchases, and 2) the goods delivery sector that brings the products to consumers' homes.

The new socio-economic context of platform capitalism ([Srnicek, 2018](#); [Alonso et al., 2023b](#)) is the result of this new digital app-driven business. It has transformed the world of work ([Todolí, 2015](#); [Grohmann, 2020](#); [Sanz et al., 2023](#); [Diez et al., 2024](#)) and generated corresponding forms of resistance ([Baum, 2018](#); [Fernández-Trujillo, 2022](#); [Moral-Martín, 2023](#); [Soto, 2023](#)). In parallel with the new platform-based economic corporations, the delivery sector has also expanded. On the one hand, goods from local businesses (most notably, food outlets) are delivered by 'riders' on bikes or other small vehicles in urban areas. On the other hand, goods linked to e-commerce are delivered by trucks, vans, and other motorized vehicles, which involves interurban, and often international, logistics. The latter produces increases in daily van movements for home deliveries, along with parking problems and pollution. In recent years, this has sparked protest and reactions from various social actors ([Castillo et al., 2022](#)). Public administrations, for example, have implemented policies aimed at more sustainable models of the Urban Distribution of Goods (UDG), particularly in the final stage of delivery, known as the "last mile". One such policy is that of the Low Emission Zones (LEZs) which restrict vehicle access in designated areas. In addition, the European Union's Urban Mobility Framework of 2021 ([European Commission, 2021](#)), together with Spain's Sustainable Mobility Law of 2024 ([Royal Decree 253/2024](#)), have provided a framework for significant policy action.

A second reaction is that of local organizations establishing themselves in last-mile cycle logistics, although the size of their operations and workloads is very different from those of the major operators. This article ethnographically explores one of these organizations – the Catalan cooperative, *Som Ecologística*. In this specific case study, local actors have combined forces to implement transformative strategies. Their aim is to promote a model of last-mile delivery that is socially and environmentally sustainable.

Som Ecologística is a logistics cooperative specializing in last-mile delivery in Barcelona and its surrounding areas. It consists of ten entities: eight cooperatives and two local associations. They operate in a highly competitive sector in which large operators now need to be able to adapt to changes in public policies on low emissions. The ten entities wanted to expand, obtain greater negotiating power in the market context, and greater influence in the development of public policies. Therefore, they decided to scale up operations and pool their resources. In the process of creating the cooperative and scaling up, a shared and distinct identity of their own emerged. The new identity assimilated the values of the Social and

Solidarity Economy (SSE) tradition within the Catalan ecosystem. Through inter-cooperation, each entity's delivery platform was expanded. This process marked an important advance for what has become known as platform cooperativism (Scholz, 2016), which emerged as a counterpoint, or alternative, aimed at transforming the dominant logic of platform capitalism.

The objective of this article is to examine empirically the various transformative strategies used by the cooperative to establish itself as a key player in Catalan cycle logistics. There are four specific aspects we shall analyze: (1) the scaling-up process that took place; (2) the decisions made regarding the use of digital technology; (3) the contract-based employment model aimed at reversing the sector's male dominance; and (4) the efforts made to influence public policies being implemented in Barcelona and its surrounding areas in order to transform the current UDG model.

THEORETICAL FRAMEWORK

Advances in technology over the past decade have brought about significant changes in today's socio-economic climate. Business models have been transformed by platform capitalism (Srnicek, 2018) via digital platforms that connect producers and consumers. Economic processes of production, management, sales, and consumption are now mediated via algorithms. In this way, information is organized and distributed in a "rational and efficient" manner, in line with neoliberal logic (Grohmann, 2020). Sociological studies have confirmed the extent to which the use of digital applications has been integrated into societal habits, leading to significant changes in lifestyles (Alonso & Fernández, 2023a). Familiarity with major companies offering delivery, transport, or labor services is now normalized.

However, the new business paradigm has also generated criticism because of its impact on workers (Todolí, 2015; Fernández-Trujillo, 2022; Sanz et al., 2023; Díez et al., 2024). Campaign groups have criticized certain practices, and unions have organized workers to resist them. In some cases, this has led to the creation of small local cooperatives (Soto, 2023). These initiatives incorporate the new technological advances into the organization and management of their economic activity. However, they reject certain negative aspects – such as the algorithmic control of job performance, or the widespread practice of independently-contracted, self-employed workers in place of contracted employees.

By adopting such principles that differentiate them from the large platform companies, these new cooperatives have come to be categorized under the term *platform cooperativism* (Scholz, 2016). The term carries an implicit criticism of the platform economy's extractivist model (Scholz, 2016, p. 12), and has been widely used around the world in recent years (Urzi et al., 2019). This critical, alternative, and "transformative" quality is also evident in *Som Ecologística* and some of the entities it comprises. Their values also incorporate those of Catalonia's long-standing tradition of social mobilization and the Social and Solidarity Economy (SSE) (Alquézar, 2016).

Much of the literature from recent years focuses on the specific case of the *riders*. In Spain, the focus is on issues stemming from the introduction of Spanish legislation to regulate the sector (Sanz et al., 2023). However, in this article, we focus on the *last-mile logistics* sector, following two lines of investigation. The first draws from the literature in business studies that deals with technological advances related to e-commerce – a well-established field in both the European and Catalan contexts. The second is based on studies that address the socio-environmental dimension of logistics, especially in relation to the use of cargo bikes. In this case, the technology employed is not examined simply in terms of economic efficiency, but also in terms of management, labor relations, and the possibilities of scalability that it offers.

The first line of investigation centers on the challenge faced by public administrations when designing mobility plans. Such plans aim to promote efficient distribution that minimizes the negative externalities caused by increased traffic in cities (Álvarez-Palau et al., 2021). A number of studies have examined the use of technology to optimize delivery routes. The aim is to reduce energy consumption and emissions, and to gain the best advantage from the proximity of delivery stations, and available parking, etc. Consequently, recent advances in technology are the key factor in distinguishing e-commerce from traditional goods distribution (Viu-Roig y Álvarez-Palau, 2020). These studies agree on the need to implement long-term policies that reflect the interests of the various stakeholders in order to mitigate the negative externalities (Viu-Roig y Álvarez-Palau, 2020, p. 4). Many also agree that more legislation is needed. Proposals include restricting polluting vehicles in Low Emission Zones (LEZs), creating intermediary distribution centers (known as hubs and microhubs), and promoting cargo bikes as a sustainable alternative to motor vehicles.

In contrast, the second line of investigation focuses on the analysis of the social dimension. These new initiatives promote “alternative” approaches to logistics that foster sustainable living, in terms of both the environment and people’s livelihoods through work (Polanyi, 1994[1977]; Pérez, 2011). In this context, a new theoretical understanding of the emerging economic practices has been proposed. It integrates arguments other than those based strictly on economic efficiency. It also describes how these practices aim to make fundamental changes to the hegemonic system, or to transform it entirely (Wright, 2014). These transformative practices are positioned by some authors in direct opposition to capitalist logic, as is the case with Moral-Martín et al. (2023) who refer to them as “creative resistances” to platform capitalism. They include:

“any collective and/or individual opposition to the market system that seeks a certain social transformation, using various historically-proven strategies of resistance, rooted in creativity, to highlight and expose the contradictions of the system and to propose viable, logical, and sustainable alternatives within the scope of the Social and Solidarity Economy (SSE)” (Moral-Martín et al., 2023, p. 2).

Platform cooperativism (Scholz, 2016) has played a central role in identifying the specific problems that its transformative practices are designed to counteract. Among such problems are: 1) high flexibilization and precarization of work, with increasing numbers of “false self-employed” (Sanz et al., 2023), and 2) conflicts arising from work being mediated via apps and algorithms (Fernández-Trujillo, 2022; Soto, 2023). For Scholz (2016), platform cooperativism represents a way to compete against platform capitalism, whose profits are concentrated among a few owners due to its business and employment models, and data-based value creation (Terranova, 2018). Nevertheless, other issues remain unresolved, such as the inherent limitations of platform cooperativism in its attempts to operate under the dominant platform logic, as described by Srnicek (2018). Although platform cooperativism has effectively addressed the issue of labor contracts, there is ongoing debate within the cooperative movement itself on other issues. For example, it is difficult to scale up (Martín et al., 2017; Kasparian, 2022; Homs et al., 2024) or to challenge the hegemonic logic of platforms, without resorting to the extractivist practices of the major platform corporations, in terms of both labor and data exploitation. Other key issues include how to access technology in the initial stages when these cooperatives have limited economic resources. Furthermore, decisions must be made regarding how such technology is managed and used. These are key issues in the transformation of the platform economy, and the transformative strategies adopted should be seen, in themselves, as social transformations. That is, by choosing apps that incorporate democratic ownership and management (Fuster et al., 2019 and 2021),

they demonstrate that the platform economy can also be conducted cooperatively, thus transforming the relationships of power that characterize it ([Grohmann, 2020](#)).

METHODOLOGY

Our case study is explored along the two aforementioned lines of investigation, i.e., the economic, as well as the social and environmental aspects of the cooperative. To this end, we adopted a qualitative methodological perspective, based on an ethnographic study of a single case: *Som Ecologística*. This organization was chosen because of the innovative capacity of the couriers who formalized this secondary cooperative through the inter-cooperation between eight small cooperatives and two delivery associations. In 2022, there were 68 entities dedicated to cycle logistics in Spain (according to the *Red de Ciudades por la Bicicleta*), four of which had been operating for more than 25 years. This illustrates the sector's substantial presence in Spain, in line with other European countries, as noted by authors such as [Urzì et al. \(2019\)](#) and [Viu-Roig y Álvarez-Palau \(2020\)](#). Among the 68 entities, however, none has the legal secondary cooperative structure of *Som Ecologística*, which demonstrates the uniqueness of this initiative.

The fieldwork also included research on the Barcelona-based cooperative Mensakas, one of the members of *Som Ecologística* (see [Table 1](#)), although in this article, we focus exclusively on the analysis of data relating to *Som Ecologística*.

Table 1. Summary of the cooperatives that comprise *Som Ecologística*, in the order they are listed on the cooperative's website:

Name of cooperative/association (service partners)	Location and distribution area
BICICLOT SCCL	Barcelona
BIKE LOGIK SCCL	Sant Cugat del Vallès (Barcelona)
COOP DE PEDAL SCCL	Mataró (Barcelona)
GRANOLLERS PEDALA ASSOCIACIÓ	Granollers (Barcelona)
LA SÀRRIA SCCL	Sabadell (Barcelona)
LA TERRASSENCA SCCL	Terrassa (Barcelona)
LAS MERCEDES SCCL	Barcelona
L'HENBICI ASSOCIACIÓ	L'Hospitalet de Llobregat
MENSAKAS SCCL	Barcelona
MARAKI EN BICICLETA SCCL	Cardedeu (Barcelona)

The data collected came from fieldwork carried out in Catalonia (Spain) between February 2022 and July 2024. This included the following: (i) online attendance at two sessions of the cooperative's Technical Committee, (ii) attendance at the public presentation of the organization at the BiciHub, Barcelona; (iii) participation with some members of *Som Ecologística* in the 34th edition of the UNED Summer School; (iv) attendance at CoopCycle's General Assembly in Nantes (France); (v) five interviews with different people involved in the cooperative; and (vi) informal conversations with members of the cooperative in various areas of interaction. In addition, materials published on the *Som Ecologística* website and

during public events, as well as local government websites, were gathered and analyzed. The [table 2](#) summarizes the main sources of the data gathered:

Table 2. Summary of fieldwork

Reference code	Technique used	Date	Duration
INT 1	Structured interview 1	20/01/2022	1:30 hours
O1	Observation. Technical committee meeting	11/02/2022	3:30 hours
O2	Observation. Technical committee meeting	19/03/2022	2:50 hours
PO1	Participant observation in General Assembly at Coopcycle	16-17-18/09/2022	3 days
INT 2	Semi-structured interview 2	18/09/2022	1:30 hours
O3	Observation. Public presentation of <i>Som Ecologística</i> followed by dinner	01/04/2023	6 hours
PO2	Participant observation at the 34 th UNED Summer School and subsequent day of interaction with the various organisations.	28-29/06/2023	2 days
INT 3	Semi-structured interview 3	28/06/2023	1 hour
INT 4	Semi-structured interview 4	28/06/2023	1:30 hours
INT 5	Structured interview 5	03/07/2024	1:30 hours

The techniques used during the fieldwork included participant observation, non-participant observation, interviews, and a field diary. Participant observation was carried out during moments of interaction with individual members of the cooperative, such as at the CoopCycle General Assembly in Nantes, and the sessions at the Summer School. Non-participant observation was carried out during meetings of the Technical Committee, to which I was invited as an observer, as well as during the public presentation of the cooperative at BiciHub in Barcelona. Structured interviews were conducted with interviewees 1 and 5 in order to gather specific information about *Som Ecologística*'s objectives, their funding, the choice and use of the apps, and their position regarding the data generated when using this technology. The semi-structured interviews included some of the previous questions along with others relating to the meetings-based creation process of *Som Ecologística*, with the aim of identifying any concerns or challenges that arose during the scaling-up process. Also included were questions about the cooperative's future objectives in relation to public administrations, in order to assess the cooperative's capacity for political influence. The information gathered was sorted into three different sets of analytical categories: the first in relation to technology and apps; the second in relation to the category of "platform," "inter-cooperation," or "scaling up"; and the third centered on the category of "political

influence", which systemized the data on future action plans and the need for dialogue with public administrations. The information was classified into tables so that the data obtained in the fieldwork contexts could be compared, followed by a manual analysis to identify the details and nuances of the data.¹

In order to highlight the collective nature of the project, the interviews are anonymized. The members of the cooperative have a heterogeneous social profile. They are primarily lower-middle class, mostly of Catalan origin, but their experience in the delivery sector is highly varied. Around 2015, some had already been working as couriers for platforms such as Glovo, while others set up their own ventures during or after the COVID-19 pandemic. It is, however, a highly masculinized sector, with an age-range of between 20 and 50 years. Some members have experience as activists in community organizations, cooperative networks (such as *Ateneus Cooperatius*²), or unions, while others do not. The five interviewees consisted of one woman and four men, aged between 30 and 50. Four of them belong to cooperatives that are members of *Som Ecologística* (Mensakas, L'Henbici, La Sàrrria, and Granollers Pedala), with three of them holding elected positions. The fifth interviewee belongs to the CoopCycle cooperative, which developed the app used by *Som Ecologística* and which is used by more than 80 other entities in the Social and Solidarity Economy (SSE) sector. We also wanted to examine the work of public sector workers involved in implementing mobility policies in the Barcelona area. However, despite various requests, it was not possible to interview any representatives from the *Oficina Metropolitana de la Bicicleta* (the Bicycle Office of the Metropolitan Area of Barcelona). The table 3 summarizes the interviewees involved:

Table 3. Details of interviewees

Interview code number	Sex	With elected role in <i>Som Ecologística</i>
INT 1	Female	Yes
INT 2	Male	No
INT 3	Male	No
INT 4	Male	Yes
INT 5	Male	Yes

Participant observation was carried out in a prolonged and intermittent manner during meetings of the Technical Committee, at public presentations of *Som Ecologística*, and, in particular, during participation in the UNED Summer School course. The course included a day of interaction among the participating initiatives, which helped provide a deeper understanding of the concerns and issues faced by *Som Ecologística* in relation to other transformative practices. This went beyond the data gathered in the interviews and shed light on the everyday reality of the initiative.

The results obtained are analyzed in the following sections.

¹ Regarding the methodology used in this ethnographic research, we followed the classic manuals by Honorio Velasco and Ángel Díaz de la Rada. Full references are provided in the bibliography.

² The *Ateneos Cooperatius* are networks of spaces found throughout Catalonia, with the aim of promoting and supporting cooperativism. They were created by the *Generalitat de Cataluña* [Autonomous Government of Catalonia].

ANALYSIS AND DISCUSSION OF THE RESULTS

First transformative strategy: the process of scaling up

Som Ecologística was founded in Barcelona in 2017, with the assistance of a grant scheme called “*Projecte Singular*” offered by the Department of Labor and Social Economy of the *Generalitat de Catalunya* [Autonomous Government of Catalonia]. After some years of relatively reduced activity, the project was revitalized in 2021 by a new group of entities involved in cycling logistics, as the e-commerce-based delivery sector boomed during the COVID-19 pandemic. Eight cooperatives and two associations involved in last-mile delivery in Barcelona and its surrounding area (see [Table 1](#)) became service partners under the legally constituted *Som Ecologística*. Their objective was to join forces and increase their presence in the delivery services market in the Barcelona area. In addition to the work generated by *Som Ecologística*, each entity continued with their own delivery activities.

The trajectory of *Som Ecologística* is still in its early stages, as its economic activities began in 2023. Its main role is to serve as an exclusive intermediary between the members of the cooperative and large-scale delivery companies (such as, for example, Dachser) that request their services. The work is then distributed among the 10 service partners as required.

Setting up the organization took two years, during which key members of each entity organized themselves into different working committees (technology, drafting statutes, and finance) tasked with agreeing on how to move forward. Participation was voluntary and non-paid, which is typical in the SSE tradition, and was carried out at the same time as applications were made for grants to finance the cooperative’s operational structure. The inter-cooperation between entities was formalized with the following six objectives. 1) The collective creation of the cooperative’s action plan. 2) The implementation of a single, unified commercial management. 3) The pooling of the bicycle fleets of the 10 service partners. 4) The collective purchase and financing of cargo bikes. 5) The sharing of maintenance, insurance, and consultancy services. 6) The use of a single cooperative app for organizing and managing deliveries.

The social actors who participated in this study have defined this process as “the creation of a cooperative cycling logistics network in Catalonia” (INT 2) or, in the words of another participant, “we are the sustainable, socially just, and cooperative alternative in logistics” (O3). This reflects their intention to differentiate their business model from those of conventional platform-based companies. The definition of the digital economy proposed by [Srnicek \(2018, p. 12\)](#) refers to “those businesses that increasingly rely upon information technology, data, and the internet for their business models”. This consists of the creation of platforms that have emerged from highly capitalized technological processes, concentrated in only a small number of companies, which rapidly expand and acquire huge influence. In contrast, the analysis of our data shows that the creation of *Som Ecologística* was not a highly capitalized process. Instead, it was a meetings-based process, where participation was unpaid, while the cooperative structuring was financed through public grants. One aspect of the logic of platformization they do share is the desire to unite with other entities in order to acquire more negotiating power and competitiveness in the delivery market. Expansion is a typical objective in the logic of platform companies. However, there is ongoing internal debate in the field of SSE concerning the degree of expansion required so that SSE economic practices can provide a real alternative to the hegemonic model ([Martín et al., 2017; Homs et al., 2024](#)). In this sense, the interviewees in this study confirmed the need to establish networks that replicate the hegemonic functioning of platforms, thus expanding the limited role of a delivery cooperative:

"Platform cooperativism isn't simply a cooperative with an app. A certain structure is needed" (PO1).

Academic studies on platform cooperativism ([Scholz, 2016](#)) do not address this need to scale up in the way that is expressed by the social actors involved in *Som Ecologística*. The impact of their inter-cooperation goes well beyond the limited action of a cooperative on its own. Upscaling not only increases their competitiveness in the market, but also their potential to become a real alternative in the current platform economy.

From the interviews and observations, it is clear that the consolidation of the cooperative has become a collective political strategy. Their aim is to gain volume and negotiate competitively with large operators that need last-mile deliveries made in the urban areas and outskirts of Barcelona, where LEZs limit the entry of delivery vehicles.

"We realized we were being rejected for many projects and grants because our turnover was not big enough, and because we did not have a platform. [...] So the idea was to say: 'We are going to get a platform, and we are going to be our own distribution centers, right?', so as to give us a stronger negotiating position and enable us to apply for certain projects" (O1).

Instead of deciding on a formal merger of the ten entities, the decision was made to foster inter-cooperation, which is a feature of cooperativism that contrasts sharply with the typical capitalist logic ([Grohmann, 2018](#), p. 4). This brought advantages, but also disadvantages. For example, the meetings-based process took two years to design the overall organizational structure that organizes the delivery work.

This strategy developed from the adoption of values in opposition to those of the large operators, such as local vs. global; dignity of work vs. precariousness; inter-cooperation vs. competition; etc. Such values are embraced as a badge of identity and to differentiate them from the large platforms. One example of the expression of these values can be found in the description, by a member of one of the entities, of the inter-cooperative work process relating to the contract signed with the logistics operator Dachser:

"From Monday to Friday at 10 a.m., a Dachser truck unloads between 3 and 7 pallets of packages at Las Mercedes premises. With one delivery worker from Las Mercedes and one from Mensakas, we unload them, organize them by postal codes, and deliver them with our cargo bikes. [...] We work together with Mensakas, which, theoretically, is a competitor of ours" (O3).

In the last-mile delivery sector, the two most common innovations are the incorporation of the latest technology to produce more efficient and faster deliveries, and the organizing of storage and distribution centers, or *hubs* ([Viu-Roig y Álvarez-Palau, 2020](#), p. 3). However, *Som Ecologística* has gone further by creating a network in which the premises of each entity acts as a distribution *microhub*.

The second transformative strategy: The use of digital technology

Recent advances in technology are a key factor in the logistics sector and the platform economy, as [Srnicek \(2018\)](#) emphasizes. This technology is essential for organizing work, for optimizing routes, energy consumption, and delivery times, and for providing continuous information to the customer about package location, failed deliveries, or returned products. However, another crucial factor is that, in the new platform economy, the data generated from the use of the applications is, in itself, a commodity with intrinsic value ([Srnicek, 2018](#); [Terranova, 2018](#)). This data can be analyzed and, in some cases, sold to third parties. As the interviews reveal, technological innovation is problematic within platform cooperativism due to the lack of capital to develop their own applications. This makes it difficult to consolidate their position as an alternative within the platform economy. The service partners of *Som Ecologística*, whose trajectories are diverse, had addressed this problem in different ways when starting up their operations. Some (such as Coop de Pedal) had never used apps, some had made use of private commercial apps (for example, Las Mercedes), while the Mensakas had begun a collective process to develop their own app. This idea of a collective app development appealed to *Som Ecologística*, and its Technical Committee finally agreed to use an open-source app designed for the cooperative sector of riders by the French cooperative, Coopcycle ([Acosta et al., 2021](#)).

“[We chose] Coopcycle – because it is more than just an app, it is a federation of cooperatives that already has values, it is open-source, and so on, and 80 cooperatives already depend on it. Well, it was an opportunity to contribute to that [to the Coopcycle app] and there is feedback from all the cooperatives around the world who, like us, are using it. And I believe that is what made Coopcycle interesting, rather than some other app, or an app developed from scratch.” (01)

Coopcycle was established in 2017 in a context of confrontation with the large delivery service companies. The organization shares the activist credentials of some of the *Som Ecologística* service partners, and supports the general principles of the Social and Solidarity Economy. Conventional logistics apps are privately owned and managed. In contrast, the Coopcycle app is owned and managed by the workers of the 80 cooperatives that comprise Coopcycle, and it requires democratic organization. The app does not serve as an intermediary between consumers and delivery workers, since decisions about its development are made by the workers who use it and own it.

Another major difference compared to conventional apps is how the Coopcycle app uses the data it generates. A collective, organizational decision was made not to sell such data to third parties, in a further divergence from the extractivist process that typifies the platform economy. The possibility was discussed of exploring and using the data in more innovative ways, such as in the development of local government policies regarding, for example, traffic flow in the city. Job precariousness is often seen as the biggest issue for the people involved in platform cooperativism. However, it is clear that the way technology is used is also a key element in transforming the accumulation processes prevalent in the platform economy. This shift in the way data is treated also calls into question the dynamics of strength and power of the big companies whose processes of technological development are closed, vertical, and highly capitalized.

In the same vein, unlike the apps of the large delivery platforms, the Coopcycle app does not organize work based on a reputation system ([Díez et al., 2024](#)). Therefore, speed of delivery, number of deliveries, and ratings by consumers or service partners are never

analyzed algorithmically to measure job performance. The delivery workers use the app to organize delivery routes efficiently, but the app does not have the capacity to identify workers who are less competitive. The role of the dispatcher, as a worker who supports the delivery activity, is no longer carried out in isolation but placed within the context in which the work takes place (Alquézar, 2025).

The Coopcycle app has played a central role in the scaling up process of *Som Ecologística*, as the management tool that coordinates the delivery activity among the 10 service partners. Another app, Odoo, is used to unify the billing of services provided to a particular client, such as Dachser. In other words, such technology has provided centralized management that regulates the inter-cooperation among the different service partners. Furthermore, technology also facilitated the meetings-based process of creating the cooperative, with people able to attend online and avoid travel. It is therefore clear how technology has facilitated the replication of processes, and expedited the change of scale already experienced in other practices, such as Social Balance, used by the Solidarity Economy Network of Catalonia (Alquézar & Suriñach, 2019).

Another important point is that, while large corporate investments in technology have led to very restrictive applications, the *Coopcycle* app shares the cooperative rationale that underpins *Som Ecologística* and therefore further strengthens their political identity. However, it also limits their operability in terms of the interaction with large operators, which refuse to bear the costs of integrating the apps into a single terminal. In this case, alliances with public administrations are, once again, crucial, we will discuss later.

The challenges and tensions arising from the transformative strategies

One of the challenges accepted during the inter-cooperation process, which enabled the organization to scale up, was to adopt the principle of meetings-based, self-organization. Various working committees were formed. Participation was open, voluntary, and unconnected to any potential capital contributions – since one of the aims of this democratic process is to change the power dynamics of the platform economy (Fuster et al., 2019; Kasparian, 2022). Moreover, unpaid participation at meetings means reduced costs during the creation of the cooperative. The capital contributed by the participants is not financial, but social. The value of this social capital is linked to concepts such as experience, and to the social networks that support the entities themselves. This fact does underline the lack of initial financial capital as well as, in some cases, a degree of unsustainability in the personal life projects of some of the participants. However, it also helps to further develop the political direction adopted by the practice in itself. The problem of initial funding is inherent in the economic practices and spaces of self-organization, be it within the framework of SSE, trade unionism, neighborhood associations, or other “alternative” movements. Such movements are prominent in the Catalan ecosystem, and some of the social actors involved here already have prior experience with them.

“Many of our service partners have connections, or are members of the *Ateneus Cooperatius*. [This network] was developed from the work done by the Generalitat [The Catalan Government], and it has played a crucial role in the coordination of our sector, and in promoting new initiatives in Catalonia. Also, the *Solidarity Economy Fair* and the *Solidarity Economy Network of Catalonia*³ have been essential for us to come

³ This Solidarity Economy Network (Xarxa d’Economia Solidària, or XES, in Catalan) is part of the Spanish-wide network of alternative and solidarity economy networks (Red de Redes de Economía Alternativa y Solidaria, or REAS), and has long been a social agent in the Solidarity Economy.

together [as participants] in a sectorial roundtable. These have been key moments that helped us take the steps that got us where we are today." (O3)

The adoption of a feminist perspective throughout the cooperative was another challenge. Most media coverage on the transformative strategy of platform cooperativism concentrates on how it contractually employs deliverers, in stark contrast to the practice of the large operators that use a system of independently-contracted, self-employed deliverers (often denounced as "false self-employed"). However, *Som Ecologística*, have gone further in their innovation by integrating a feminist perspective throughout the entire creation process. This has never been observed before in the rationale of the platform economy, nor even in the platform cooperativism that we are dealing with here.⁴ This feminist perspective was incorporated as one of the principles of the cooperative's founding manifesto which, in its preamble, recognizes the masculinization of the delivery sector. Further action in this direction has been taken, such as the appointment of a woman as president. Some service partners in the cooperative, such as Mensakas, have even approved a 5% increase in the wages of female workers ([Alquézar, 2025](#)).

On the other hand, one of the points of tension within the *Som Ecologística* cooperative concerns the economic viability of its activities, in a context of intense competition and low fees. Last-mile delivery is problematic for the larger companies such as Seur, GLS, DHL, and Dachser, among others. Difficulties include restrictions imposed on polluting vehicles in Low Emission Zones, failed delivery attempts due to absent recipients, parking difficulties, etc. Therefore, these companies need to move towards more sustainable delivery systems and the use of cargo bikes. Consequently, last-mile delivery is increasingly outsourced to other agents. In this context, *Som Ecologística* aim to establish themselves as a local delivery platform for Barcelona and the surrounding area. However, last-mile delivery is a highly competitive sector, with many companies involved, and a price per delivery of around €1.20.

By creating the *Som Ecologística* cooperative, the 10 entities have been able to scale up operations and to unify the channel of communication with the large companies, as is the case with Dachser, with whom there is now a formal contract. Strategic plans for the future include expanding beyond the Barcelona area to create coordinated hubs of delivery networks in the 23 cities in Catalonia that have populations of over 50,000. Cities of this size are required by European legislation to implement LEZs. Contact has been made with the national train operator, RENFE, to explore intercity transport of goods to facilitate connections between the different hubs. However, progress towards this goal will depend on the involvement of local governments, since the legislation on urban mobility needs to be reconsidered in the light of the current functioning of Urban Goods Distribution (UDG).

The quest for growth does, however, exacerbate another of the inherent tensions of cooperativism. There is ongoing debate on whether to seek an alternative place in the market, distinct from that of big platform consumerism, or to compete directly with the large delivery platforms. On the one hand, each of the *Som Ecologística*'s ten service partners already occupies that alternative place in the market through their own activity delivering for local (or nearby) businesses. However, the creation of *Som Ecologística* has brought a radical shift in the concept. They can now be seen as a competitive option in the delivery chain of large companies, that is taking advantage of the changing context. Furthermore, expansion allows them to unite forces when it comes to public bidding competitions.

As for the problem of viability, *Som Ecologística* seeks to diversify its barely profitable delivery activities by commercializing other services. Income is augmented by training, consulting, and bicycle maintenance services in order to achieve full economic viability.

⁴ See the critique by Mayo Fuster in her introduction to the text by [Scholz \(2016\)](#).

Towards the third transformative strategy: cooperative-public management of the hubs

European, national, and local governments are currently promoting policies on decarbonization and a transition to clean energy. This provides the ideal legal framework for the synergies between the public sector and the activist sector to flow towards their transformative objective.

Academic studies on logistics generally agree that public policies have positive effects on delivery van logistics by mitigating the resulting negative externalities, such as traffic congestion, environmental pollution, and parking difficulties (Viu-Roig, 2020, p. 4). In this vein, the public administrations of Barcelona and Catalonia have designed urban mobility plans to implement a more efficient and sustainable distribution operation. Such policies are implemented in accordance with Spanish regulations on the clean energy transition toward a decarbonized model of production (Law 7/2021, BOE), as well as European initiatives promoting specific projects that develop sustainable last-mile logistics.

Three public bodies have been tackling the problem of Urban Goods Distribution (UDG) for many years. The first is the Barcelona City Council. The second is the *Àrea Metropolitana de Barcelona* or AMB, which regulates municipalities around the city. The third is the *Diputació*, which operates at the level of the province of Barcelona. Specifically, the City Council has implemented an Urban Mobility Plan. The strategies include registering delivery van parking times, imposing fees (known as the “last-mile fee or e-commerce fee”) for polluting delivery vehicles (Navarro, 2024), and establishing microhubs in each district of the city. Meanwhile, the AMB has, in recent years, provided funding to create seven microhubs in the various urban centers that comprise the Metropolitan area of Barcelona, although this has not proven very effective locally. What has been successful is the first urban goods distribution microhub set up in collaboration with the logistics company VANaPEDAL (which is not a partner of *Som Ecologística*). This microhub is located at the *Estación de Francia* in Barcelona, a train station that facilitates the transport of goods into the center of the city. As one of our interviewees said:

“Barcelona is considering outsourcing the management of some hubs in the city on municipal premises. They already have the VANaPEDAL hub at the *Estación de Francia*, which is a municipal space that has been ceded to VANaPEDAL, who do last-mile deliveries for Seur and DHL. VANaPEDAL is not a cooperative. And the management of the space is not public-cooperative, but private.” (INT 5)

Apart from government bodies, there are other social actors involved in the transition of UDG that should also be considered. Two of these are the *Asociación de Empresas de Ciclogística de España* [Spanish Association of Ciclogistics Companies] and the *Red de Ciudades por la Bicicleta* [Cities for Cycling Network]. These two entities bring together municipal experts from different cities in the country to promote the use of bicycles for transport and urban delivery. The Cities for Cycling Network has published a guide that documents the sector’s experience, and this has, on occasion, served as a reference for *Som Ecologística*.

In this context, one of the proposals of *Som Ecologística* aims to question public administrations, and to make their voice heard, in the process of making UDG sustainable. Since Barcelona already applies LEZ restrictions, *Som Ecologística*’s demands focus on the creation of microhubs under public-cooperative management, which would also be an innovation for the sector. Microhubs such as these would function by using a publicly

managed space where large operators would leave their packages, and small local companies would distribute them in a single trip (a process known as cargo consolidation). This would lead to more efficient fuel use and lower emissions, and better use of public space and roads, by having a single non-polluting vehicle, a cargo bike, make the delivery with packages from all the operators. In this way, the wasteful practice of each operator moving their own packages is avoided.

"This idea of last-mile hubs, with a neutral operator organizing the last mile for different operators in order to consolidate the distribution strategy, has been developed theoretically, not only by us but by other agents. But, almost everywhere, it has been difficult to put it into practice, because of the difficulty of consolidating with the operators. We are fully committed to this model. We added a stage to it, which is shared governance, which we believe could make this model more viable. Unless there is a strategy of shared management among all agents, including the big operators, and unless there is local government involvement, it is difficult to move forward with this model." (INT 5)

This demand for public-cooperative management of microhubs would extend to a public-cooperative ownership of an app that would be compulsory for all users. This would facilitate the unification of the technological tools needed to consolidate deliveries between large and small operators, thus neutralizing the current inequality between them. The Coopcycle app used by *Som Ecologística* is transformative, as discussed previously, but in this case, it would present certain limitations. However, an app managed by all users would eliminate, for local operators, the extra costs of developing technology for adapting to the microhub and communicating with the large operators. In this way, the public administrations would play a key role in seeking consensus and ensuring a level playing field for both large and local operators.

Innovative public-community management experiences such as these have already taken place in the Barcelona area. Between 2015 and 2023, a strongly municipalist coalition held office in the City Council of Barcelona (2015-2023). Among the policies they implemented was the cession of public urban facilities to be managed by non-profit social entities. *Som Ecologística* proposes the cession of public urban facilities and properties to create microhubs in the various districts of Barcelona and surrounding areas. This would be another way to alleviate the lack of funding, in this case for maintaining infrastructure, and another step in favor of the project's viability.

In this sense, *Som Ecologística* can be considered to be a lobbying group, or pressure group. They aim to influence decisions on regulations and legislation by intervening directly in demands for transformation regarding certain inclusive and democratizing measures. They call for the consolidation of alternatives in cycle logistics, for urban deliveries with cargo bikes, subsidies for cargo bike purchases, or the hiring of their services by the administration itself.

We see, therefore, how these social actors also become political actors. They defend a model of UDG that is critical of the dominant logic that governs the distribution system of the large delivery operators. The public events they have organized help to disseminate their political stance, to question the dominant logic, and to influence the generation of discourses and identities. Their philosophy often coincides with the values of the SSE ecosystem in Catalonia, or other parts of the world, and is sometimes entirely innovative within the current socio-economic context. Their actions have social and political impact, regenerating social relationships and informal political approaches. This can be understood as an "alternative" way of doing politics by promoting the creation of activist networks comprising various social agents in the field of cycle logistics. It is a repositioning of politics within the

sphere of cooperation. It demands a way of solving specific needs – both technological and organizational – based on a democratic and inter-cooperative relationship. It aims to transcend the logic of accumulation that currently drives the platform economy, in which hierarchical processes concentrate an extractivist and hegemonic economic and financial power in the hands of a small number of very large companies. This analysis shows us that, despite operating in the conventional market of logistics, the material needs of production and management of the social actors involved in *Som Ecologística* have been met through processes in which the prevailing considerations are social relations and solidarity. This is a common feature of the logic of the Solidarity Economy. (Alquézar, 2016; Kasparian, 2022).

CONCLUSIONS

By examining the process involved in creating the *Som Ecologística* cooperative, we can reach a better understanding of the alternative models that are possible within the logistics sector involved in Urban Goods Distribution. The strategies adopted during its creation are not based on criteria related to technological efficiency, or the extractivist logic of platform corporations. For example, the limitations on funding were compensated by the voluntary, and militant, meetings-based work of the social actors supporting the initiative. This democratic process is also seen in the technological sphere, since the Coopcycle app they use shares the same principles and values as *Som Ecologística*. The choice of this delivery app, which is the key technological resource for their economic activity, reinforces their commitment to collective action.

The strategies followed by *Som Ecologística* include the following: 1) They have expanded their production structure by creating a network of service partners that pool their resources. Through this inter-cooperation, they have scaled up their operations, increasing their negotiation power and influence on the transformation of the current model of UDG. 2) They have made use of an app, whose ownership and governance depends on the workers who use it, and which allows them to centralize the distribution logistics. 3) They have hired their workers, rejecting the idea of franchise models and “false self-employed” workers, and have adopted a feminist perspective to reverse the masculinization of the sector. 4) They have taken part in dialogue with public administrations to promote shared public and cooperative ownership of hubs and to reverse the power dynamics that favor the large logistics operators.

With these strategies, *Som Ecologística* aim to “transform” the current model of UDG logistics. They are not limited by the economic and environmental perspectives which are the usual focus of logistics studies, but instead add a social perspective. The social dimension of these strategies extends to the technology they use, bringing new elements for reflection into the debate on the creation of alternatives. Transforming platform economies is not only a matter of scaling up and increasing volume and negotiating power in the sector, but also of offering an alternative to the predominant extractivist logic. In this regard, *Som Ecologística*, despite having scaled up and expanded, reject the extractivist logic towards the use of data in platform economies. They do not use data to manage the delivery workers “efficiently”, nor to generate customer profiles. These transformative sociotechnical practices, which we have observed, directly contribute to the debate on the scope of platform cooperativism (Scholz, 2016; Moral-Martin et al., 2023).

On the other hand, the points of tensions and the limitations of the process reveal a dependence on public subsidies to consolidate the initial structure of the cooperative. This in itself puts a certain strain on their fundamental vocation, which is to exist as an alternative. It is, however, no obstacle to their attempts to influence public policies that promote the ecosocial transformation of the logistics sector, and steer the UDG toward local formulas that are environmentally, socially, and technologically sustainable. The activities of the social

actors involved in *Som Ecologística* have a political impact, both formally and informally. They help to generate narratives that counter those of the hegemony, while setting an example with their economic practices so that other entities may begin a similar process. It is a demonstration of the potential of this economic practice, in the sense pointed out by E.O. Wright (2014) about real utopias.

Finally, it should be pointed out that the notion of sustainability that emerges in this case study is not limited to the sphere of production and business. It also includes the social and ecological dimensions of the theories of “sustainability of life” as defended in ecofeminist theories, the Social and Solidarity Economy, or *Buen Vivir* ((Polanyi, 1994[1977]; Pérez, 2011; Alquézar, 2016), in which production is understood to be embedded holistically in the social context in which it operates. Ultimately, the challenge cities face in transforming UDG is not only important because of its environmental impact, but also for its economic and social dimensions, and its effects on labor and technology. It is this sense that the *Som Ecologística* cooperative provides evidence that “alternative” forms of organization can have an impact on the democratization of the logistics sector. Future research should monitor the cooperative’s incipient activity, regarding the potential tensions arising from resource pooling, as well as their goal of becoming a point of reference in last-mile distribution at the Catalan level, where real events continue to shape their activities, in their search for viability. In this way, we can study the impact of these transformative economic practices, which comprise democratic, economic, and moral processes in their critique of capitalism. And, while still marginal, they represent realities that are flourishing in the interstices of capitalist society (Alquézar et al., 2014; Wright, 2014; Sama & Alcañiz, 2024).

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DECLARATION ON THE USE OF AI

No artificial intelligence tools were used in the writing of this article.

REFERENCES

Acosta Alvarado, A. S., Aufrère, L., & Srnec, C., (2021). CoopCycle, un projet de plateforme socialisée et de régulation de la livraison à vélo. *Hal Open Sciences*. <https://hal.science/hal-03364001>

Alquézar, R., Homs, P., Morelló, N., & Sarkis, D. (2014). Prácticas cooperativas: ¿estrategias de supervivencia, movimientos alternativos o reincrustación capitalista? *Ars & Humanitas*, 8(1), 151-166. <https://doi.org/10.4312/ars.8.1.151-166>

Alquézar, R. (2016). *La Economía Social y Solidaria y las finanzas éticas: entre el valor social y el valor de mercado* [Doctoral dissertation]. Universitat de Barcelona. <http://hdl.handle.net/10803/399645>

Alquézar, R., & Suriñach, R. (2019). *El Balance Social de la XES: 10 años midiendo el impacto de la ESS en Cataluña*. Grupo de Trabajo Interinstitucional de las Naciones Unidas sobre ESS (UNTFSS). https://historic.xes.cat/wp-content/uploads/sites/2/2019/06/203_Alquézar_El-Balance-Social-de-la-XES_Es.pdf

Alquézar, R. (2025). Conflicto, democratización de las aplicaciones tecnológicas y control del algoritmo. Prácticas transformadoras en el cooperativismo de plataforma. *REVESCO. Revista de Estudios Cooperativos*, 149, 1-13. <https://doi.org/10.5209/reve.99740>

Alonso, L. E., & Fernández Rodríguez, C. J. (2023a). Editorial: Consumo, trabajo y digitalización: una exploración sociológica de la economía de las plataformas. *Revista Española de Sociología*, 32(3), a170. <https://doi.org/10.22325/fes/res.2023.170>

Alonso, L. E., Fernández Rodríguez, C. J., & Ibáñez Rojo, R. (2023b). "Estoy en contra de ellas, pero las uso": un análisis cualitativo de las representaciones sociales del consumo electrónico y la economía de plataformas. *Revista Española De Sociología*, 32(3), a171. <https://doi.org/10.22325/fes/res.2023.171>

Álvarez-Palau, E. J., Calvet-Liñán, L., Viu-Roig, M., Gandouz, M., & Juan, A. A. (2021). Economic profitability of last-mile food delivery services: Lessons from Barcelona. *Research in Transportation Business & Management*, 45(A), 100659. <https://doi.org/10.1016/j.rtbm.2021.100659>

Álvarez-Palau, E., Viu-Roig, M., & Castillo, C. (2022). *Guia per a l'elaboració de Plans de Logística Urbana Sostenibles*. Diputación de Barcelona. https://llibreria.diba.cat/es/libro/guia-per-a-l-elaboracio-de-plans-de-logistica-urbana-sostenible_66312

Baum, A. (2018). *Resisting the Gig Economy: The Emergence of Cooperative Food Delivery Platforms*. Open Democracy. <https://neweconomics.opendemocracy.net/index.html%3Fp=2705.html>

Boston Consulting Group [BCG]. (2020). *Economía digital en España*. Asociación Española de la Economía Digital (Adigital). <https://www.adigital.org/economia-digital-en-espana/>

Castillo, C., Viu-Roig, M., & Álvarez- Palau, E. J. (2022). Repensando la distribución urbana de mercancías para la era del e-commerce. *Oikonomics. Revista de los Estudios de Economía y Empresa*, (18). <https://dialnet.unirioja.es/servlet/articulo?codigo=8492270&orden=0&info=link>

Díez, F., Corredor, F., & Soto, N. (2024). Espacios de gobernanza y control algorítmico en las plataformas de reparto. *Scripta Nova. Revista electrónica de Geografía y Ciencias Sociales Universitat de Barcelona*, 28(1), 17- 48. <https://doi.org/10.1344/sn2024.28.41537>

European Commission. (2021, 14 de diciembre). *Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions. The New EU Urban Mobility Framework*. European Commission. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0811>

Fernández-Trujillo, F. (2022). Resistencia, sindicalismo y conflicto en el ámbito de las plataformas de reparto y mensajería. *Cuadernos de relaciones labores*, 40(1), 139-160. <https://doi.org/10.5209/crla.74351>

Fuster, M., & Espelt, R. (2019). A Framework to Assess the Sustainability of Platform Economy: The Case of Barcelona Ecosystem. *Sustainability*, 11(22), 6450. <https://doi.org/10.3390/su11226450>

Fuster, M., Espelt, R., & Renau, M. (2021). Cooperativismo de plataforma: Análisis de las cualidades democráticas del cooperativismo como alternativa económica en entornos digitales. *CIRIEC-España, Revista de Economía Pública, Social y Cooperativa*, (102), 5-31. <https://doi.org/10.7203/CIRIEC-E.102.18429>

Grohmann, R., (2018). Cooperativismo de plataforma e suas contradições: análise de iniciativas da área de comunicação no Platform.Coop. *Liinc em Revista*, 14(2), 19-32, <https://doi.org/10.18617/liinc.v14i1.4149>

Grohmann, R. (2020). Plataformização do trabalho. Entre dataficação, financeirização e racionalidade neoliberal. *Eptic online: revista electronica internacional de economia política da informação, da comunicação e da cultura*, 22 (1), 106-122

Homs, P., Sama, S., & Berná, D. (2024). La sostenibilidad del cooperativismo agroecológico: desafíos de los supermercados cooperativos y otros modelos de crecimiento en Cataluña. *REVESCO. Revista de Estudios Cooperativos*, 149, 1-14. <https://doi.org/10.5209/REVE.97856>

Kasparian, D. (2022). La implementación local de cooperativas de plataforma. *Revista Del Centro De Estudios De Sociología Del Trabajo (CESOT)*, (14), 107-148. [https://doi.org/10.56503/cesot/n.14\(2022\)p.107-148](https://doi.org/10.56503/cesot/n.14(2022)p.107-148)

Ley de Movilidad sostenible 7/2021. (21 de mayo del 2021). Jefatura del Estado. BOE-A-2021-8447. <https://www.boe.es/eli/es/l/2021/05/20/7/con>

Martín, A., Homs, P., & Flores Pons, G., (2017). *El canvi d'escala: un revulsiu per a la sostenibilitat del cooperativisme agroecològic?* L'Aresta. https://aresta.coop/wp-content/uploads/2019/12/aresta_el-canvi-descala_un-revulsiu-per-a-la-sostenibilitat-del-cooperativisme-agroecolc3b2gic.pdf

Moral-Martín, J. D., Pac Salas, D., & Minguijón, J. (2023). Resistencia versus destrucción creativa, ¿es posible una alternativa a la actual economía de plataformas? Un estudio de caso de dos cooperativas. *Revista Española de Sociología*, 32(3). <https://doi.org/10.22325/fes/res.2023.176>

Navarro, A. (2024). Detrás del modelo *business-to-consumer* (B2C): consideraciones jurídicas de la tasa de reparto del e-commerce. *IDP. Revista de Internet, Derecho y Política*, (40), 1-13. <https://doi.org/10.7238/idp.v0i40.422383>

Olsson, J., Hellström, D., & Pålsson, H. (2019). Framework of Last Mile Logistics Research: A Systematic Review of the Literature. *Sustainability*, 11(24), 7131. <https://doi.org/10.3390/su11247131>

Pérez, A. (2011). Crisis multidimensional y sostenibilidad de la vida. *Investigaciones Feministas*, 2, 29-53. https://doi.org/10.5209/rev_INFE.2011.v2.38603

Polanyi, K. (1994). *El sustento del hombre*. (E. Gómez Parro, Trad.). Mondadori. (Original work published in 1977)

Royal Decree 253/2024. (March 13th, 2024). Ministry for Digital Transformation and Public Administration [Ministerio para la Transformación Digital y de la Función Pública]. BOE-A-2024-4865. <https://www.boe.es/eli/es/rd/2024/03/12/253/con>

Revilla, J., & Blázquez, V. (2021). Uneasy riders: contradicciones lógicas disciplinarias para una posición laboral imposible. *Revista Española de Sociología*, 30(2), a35. <https://doi.org/10.22325/fes/res.2021.35>

Sama, S., & Alcañiz, G. (2024). Desafíos cotidianos y alternativas posibles desde las economías transformadoras. *Economistas sin Fronteras*, (54). <https://ecosfron.org/desafios-cotidianos-y-alternativas-posibles-desde-las-economias-transformadoras/>

Sanz, P., Casas-Cortés, M. I., Prieto Arratibel, A., & Arasanz Díaz, J. (2023). El empleo irregular tras la Ley Rider: ¿nueva regulación, idénticas estrategias empresariales? *Revista Española de Sociología*, 32(3), a177. <https://doi.org/10.22325/fes/res.2023.177>

Scholz, T. (2016). *Cooperativismo de plataforma. Desafiando la economía colaborativa corporativa*. DIMMONS – Action Research Group. <https://dimmons.net/cooperativismo-de-plataforma/>

Soto, N. (2023). *Riders on the storm: Trabajadores de plataformas de delivery en lucha*. Laboratoria.red. <http://laboratoria.red/publicacion/riders-on-the-storm-trabajadores-de-plataformas-de-delivery-en-lucha/>

Srnicek, N. (2018). *Capitalismo de plataformas* (A. Giacometti, Trad.). Caja Negra.

Terranova, T. (2018). Marx en tiempos de algoritmos. *Nueva Sociedad*, (277). <https://www.nuso.org/articulo/marx-en-tiempos-de-algoritmos>

Todolí, A. (2015). El impacto de la “uber economy” en las relaciones laborales: los efectos de las plataformas virtuales en el contrato de trabajo. *IUSLabor*, (3), 1-25. <https://raco.cat/index.php/IUSLabor/article/view/305786>

Urzì, C., Pesole, A., & Fernández-Macías, E. (2019). Digital Labour Platforms in Europe: Numbers, Profiles, and Employment Status of Platform Worker. *Publications Office of the European Union*. <https://doi.org/10.2760/16653>

Velasco, H., & Díaz de la Rada, A. (1997). *La lógica de la investigación etnográfica: un modelo de trabajo para etnógrafos de la escuela*. Trotta.

Viu-Roig, M., & Álvarez-Palau, E. J. (2020). The Impact of E-Commerce-Related Last-Mile Logistics on Cities: A Systematic Literature Review. *Sustainability*, 12(16), 6492. <https://doi.org/10.3390/su12166492>

Wright, E. O. (2014). *Construyendo utopías reales*. (R. Cotarello, Trad.). Akal.