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► To cite this version:

Guillaume Compain, Philippe Eynaud, Lionel Morel, Corinne Vercher-Chaptal. Alternative Platforms and Societal Horizon : Characterisation and Strategies for Development. SASE 31st Annual Meeting Fathomless Futures: Algorithmic and Imagined, Jun 2019, New York City, United States. halshs-02140104

HAL Id: halshs-02140104

<https://shs.hal.science/halshs-02140104>

Submitted on 27 May 2019

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SASE 31st Annual Meeting
Fathomless Futures: Algorithmic and Imagined
27- 28 June 2019 - The New School - New York City

**Alternative Platforms and Societal Horizon :
Characterisation and Strategies for Development¹**

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Abstract: The sharing economy harbours a diversity of stories and practices that make this notion somewhat ambiguous. On the one hand, some powerful platform-companies, designed to capture, process and control increasing volumes of data in the hope of generating high profits, claim to belong to the sharing economy. On the other hand, we find sharing platforms that aim to escape purely commercial principles and place sharing and solidarity at the heart of their development models. A qualitative study carried out in France with a sample of nine platforms belonging to this second type brought to light two findings. Firstly, the alternatives studied are characterised by a dynamic of “re-embedding” on at least one of the three fictitious commodities identified by Polanyi (labour, money and land). Secondly, they aim to go beyond the classical opposition between the open strategy of the digital commons and the more closed approach based on collective ownership found in platform cooperativism. They manage to overcome this opposition through mutualistic practices and alliances, and multi-stakeholder governance built around the general interest. In doing so, sharing platforms are inventing the outlines of a possible renewal of public action and laying the foundations for an organised response to the challenges of the social and ecological transition

Key Words : Sharing Economy, Platform, Digital commons, platform cooperativism, substantive economy

¹ This communication is part of a research programme ([TAPAS - There Are Platforms as Alternatives](#)) led jointly by the CEPN (Centre d'économie et de gestion de l'Université Paris 13 - UMR CNRS 7234) and the association, Coop des Communs.

Introduction

Uber is a platform for matching those drivers with a car with those in search of a ride. After seven years, the company is estimated to be worth \$62.5 billion. Fairmondo is a platform that matches those offering ethical products with those searching for these. In three years, it has grown into a community of more than 12.000 users, and two million products. Both are examples of the known as the sharing economy, but they represent different modalities: Uber is a private, incorporated company that maximizes profit...while Fairmondo is a member-owned cooperative, based on open source and environmentally friendly products, that maximizes community. (Fuster Morell, 2018, p. 125).

Although the sharing economy has been the subject of abundant writings over recent years, a great deal of vagueness surrounds the content of this notion and its precise scope. This vagueness is partly linked to the relationships that the sharing economy has with the market economy. These relationships are more or less strong and extensive depending on the definitions used. Carballa-Smichowski and Coriat (2017) identify two main approaches to the sharing economy. The first defines it as being the primacy of access and use over ownership (Novel & Riot, 2012 ; Botsman, 2014). According to this approach, the sharing economy regroups models of exchange or production based on sharing and making available (in return for money or not) resources that are most often “under-used”. In this approach, the specificity of sharing economy transactions is that they are carried out between two individuals, sporadically and non-professionally, akin to the P2P (person to person) model. Botsman (2014), however, recognises that sharing-economy entities may also exist in B2C-type (business to consumers) models, pointing to the possibility that profit-seeking companies may also intervene in the transactions. The second approach goes further in that it includes market activities as such in the sharing economy. It presents the sharing economy as comprising two- or multi-sided markets (Rochet & Tirole, 2006). These markets rely on the intervention of platform-companies that structure spaces bringing providers and users together and where transactions are carried out. These transactions are fixed and dominated by the platform, which takes a share of the paid transaction money as its profit – which can sometimes be likened to an economic rent.

Considering these approaches, the question can be asked as to what distinguishes the world’s sharing economy from the classical market economy. This communication aims to bring some answers to this question by focusing on digital platforms.

The many attempts to define digital platforms (Vercellone & al., 2018; Bamberger & Lobel, 2017; Smyrnaiois 2017, Srnicek 2017; Constantinides & al. 2018) are a sign of the lively theoretical debate on their nature, their scope and their impacts at the economic, social and environmental levels. This communication positions itself at the centre of this debate and, in line with the initial research of Carballa-Smichowski and Coriat (2017), proposes to differentiate between two broad categories of platforms. The first category refers to platform-companies, also characterised as capitalist platforms (Smyrnaiois 2017; Srnicek, 2017; Fuster Morell, 2018; Vercellone et al., 2018). Platform-companies are grounded on a new business model designed to take advantage of the digital revolution, and able to monopolise, extract, process and control massive volumes of data and then use them to generate revenue.

The second category comprises sharing platforms. These present themselves as alternatives to platform-companies and aim rather to facilitate exchanges between individuals. They thus mark out a field with the potential for an emancipation from purely commercial principles and more

effectively respond to the imperatives of social and environmental sustainability (Fuster Morell, 2018).

Over the last ten years, many sharing platform initiatives have emerged in Europe and the United States. Yet, bar a few exceptions (Fuster Morell, 2018), these alternatives are relatively understudied, and it is not always easy to make out what constitutes their specificities. How can we characterise these initiatives, which present themselves as alternatives to platform-companies? What strategies are implemented by the promoters of sharing platforms to ensure that their initiative develops in line with their guiding principles? These questions are still open-ended in the literature and this communication aims to bring some answers.

The first part of the communication offers a review of the literature. It helps to situate sharing platforms within the framework of the new digital economy and with respect to the new forms of platform-companies created to take advantage of this economy. This theoretical framing makes it possible to view sharing platforms as extensions of the digital commons model in the entrepreneurial world, on the one hand, and the cooperative model, on the other. To move forward with this perspective and to better grasp the specificities of sharing platforms, the first part of this communication concludes by proposing a conceptual framework for our field study, grounded on the substantive economy developed by Karl Polanyi. The second part of the communication presents the empirical study based on nine cases of sharing platforms. Despite the diversity that characterises the platforms in our sample regarding the sector of activity, legal status and development model, our findings show that all the initiatives studied contribute to a “re-embedding” dynamic on at least one of the fictitious commodities identified by Polanyi (labour, money and land). This point is one of the features that allows us not only to characterise the sharing platforms in our sample, but also to differentiate these from platform-companies. Our findings also show that the platforms achieve this re-embeddedness by combining approaches that are classically opposed in the literature: the broad approach akin to that of open digital commons, and the more closed approach grounded on collective ownership as in platform cooperativism. Our findings reveal that the sharing platforms studied have the ability to combine and create bridges between the two strategies. These convergences are operated through mutualising mechanisms within the platforms, alliances between platforms, multi-stakeholder governance, and the mission of some individuals to anchor their action in the public interest.

I. Literature review

1.1. The new platform economy

In the literature, digital platforms are generally associated with the growth of modern capitalism (Bamberger & Lobel, 2017; Smyrnaioi 2017; Srnicek, 2017). To generate profit, companies have to continually search for new openings, new markets, new products. For Srnicek (2017), 21st-century capitalism, fuelled by the innovations in digital technologies, has set its sights on a special raw material – data – to ensure economic growth. Data has quickly taken centre stage in companies’ business and the relationship with their employees, customers, suppliers and subcontractors. In the wake of these innovations, a new type of company able to use and control enormous volumes of data has emerged: the platform-company. “Often stemming from a company’s internal needs to manage data, platforms soon proved to be the most effective way

of monopolising, extracting, indexing, analysing and using increasingly substantial volumes of data” (Srniczek, 2017 p.66). The platform-company is based on a digital infrastructure that allows it to occupy the position of intermediary between different categories of users (customers, advertisers, service providers, producers, suppliers). By making the digital infrastructure an unavoidable intermediary in exchanges between different interacting groups, the platform-company benefits from a privileged access to data: it positions itself not only between users but also as a space where business activities are carried out. This means that it imposes itself as an inescapable business model for extracting the raw material – data.

The economic literature places the platform-company at the centre of the two-or multi-sided market model (Rochet & Tirole, 2006) and connects its development with some major invariants, one of which is network effects, as described by Metcalfe’s law. These stem from the fact that the more numerous the users of a platform, the higher the value of the service or product proposed by the platform in the eyes of other potential users. The result is a cycle in which users generate an ever greater number of users. Coupled with the possibility of quickly developing commercial activities on the basis of already existing infrastructure and very low marginal costs, these network effects allow platform-companies an almost unlimited growth. This may reach huge proportions over a very short time and lead to monopoly situations. This trend is boosted from the outset by a “winner-take-all” dynamic and drives pioneering platforms to use all available means to accelerate their organic and external growth in order to dominate the market and control the future rules of the game. The well-known expression “too big to fail” is what justifies this “growth before profits” strategy (Smyrnaio, 2017).

Network effects and the “winner-take-all” logic mean that companies strive for a dominant position from the very beginning, and this is one of the typical features of platform capitalism (Srniczek, 2017 ; Vercellone *et al*, 2018). Platform-companies roll out various strategies to ensure a constant flow of new users, and extract the raw material – data – which they then use in multiple ways to generate revenue. Three main sources of revenue can be identified at the heart of platform-companies’ business models. The first source derives from the extraction and appropriation of the data provided by the platform users, which after analysis are sold to advertisers. In this case, the platform’s growth depends on the principle of “merchantable gratuitousness” (Vercellone *et al*, 2018) or, in other words, the apparently free offer of goods or services in return for the extraction, appropriation and sale of user data. According to the formula “if you are not paying for it, you are the product”, the price is not paid in euros or dollars but in data. This is the main source of revenue for informational and social networking platforms (Google, Facebook, etc.), which constitute the leading model for platform-companies, which Srniczek calls “advertising platforms”. The principle of merchantable gratuitousness enables advertising platforms to swiftly attract a very large number of users and take advantage of network effects. In addition, platform-companies can create a second source revenue by renting out cloud data storage, sometimes linked to tools for developing software and operating systems or ready-to-use applications. Apart from the profit generated by the rental income, this model, described as “platform as a service” (Srniczek, 2018), enables companies to collect new data on an ongoing basis. Finally, a third source of revenue may come from commissions. These are levied by the platforms that provide on-demand services or products allowing providers and users to link up. The commissions are levied on the platform transactions between users. In this model of “on-demand platforms” (Vercellone *et al*, 2018),

some platforms function on a hyper-outsourcing model. This strategy leads to so-called “light” or “virtual” platform configurations (Srnicek, 2017), meaning that the companies hold practically no assets. “Uber, the world’s largest taxi company owns no vehicles...and Airbnb, the world’s largest accommodation provider, owns no real estate” (Goodwin, 2016). This allows them to transfer the costs of investment, maintenance, insurance and depreciation to the service providers, that is, the workers (delivery people, taxi drivers, etc.). They do not pay salaries to these workers, which helps them to reduce their costs even further as they pay no social benefits, sick pay, etc. Although operating “lightly”, the platforms nonetheless retain ownership of the most important things: the algorithms and data.² The competitiveness of the platform-company is determined by its ability, to compute, process and control the continuous flow of information that the users produce on the platform (Smyrnaio, 2017). The platform-company thus ensures not only its access to an increasing quantity of data, but also control over the rules of the game. The rules framing the development of services or products, as well as the market mechanism, are determined by the platform owners. “Even if Uber presents itself as a simple receptacle that accommodates market rules, it alone is determines the forms that this market will take” (Srnicek, 2017 p.48). One of the major characteristics of the platform-company is that it makes little use of paid employment. This is for several reasons. Firstly, because on-demand platforms most often target self-employed workers (at least formally) and those who own their means of production. Moreover, for some theorists of the Web (Fuchs, 2012 ; Scholz, 2013; Casilli, 2015 ; Casilli, 2016), the advertising platform-company depends on “unpaid labour”. In reality, its users are unpaid workers who produce goods (data and content) that will be exploited. The structure of Web 2.0 has made it possible to push back the frontiers of a company to integrate the collaboration of its users or consumers, who are then described as prosumers, a term resulting from the contraction of the word “professional” or “producer” and the word “consumer”. Finally, only a limited number of salaried Big Data specialists and programmers are involved in developing the algorithms and processing the data of platform-companies. These companies most often depend on technologies captured from free software produced by volunteer developers.³ As Antonio Casilli (2019) shows, platform users bring a threefold value to platform promoters, often unknowingly: the value of qualification (sorting and evaluation of information), value of monetisation (commissions, data), value of automation (training artificial intelligence).

While the question of labour and its exploitation is central to the criticism directed at the new platform capitalism, it is not the only issue under debate. Other abuses are pointed out, notably the denunciation of a “surveillance capitalism” based on the systematic exploitation of Internet users’ personal data (Zuboff, 2019). These abuses have led to proposals for alternative models that integrate a collaborative or sharing logic.

1.2. From platform-companies to sharing platforms

Sharing platforms embody a trend countering the expansion of capitalist platforms and their hegemonic aims. They are seeking to implement alternative management methods and development models. These alternatives draw on two major tendencies. A first type of sharing

² It should be remembered that Uber collects data on all its trips and all its drivers.

³ For example, one only has to look at how Google developed its Android operating system using the free software, Linux.

platform is in line with the tradition of digital commons and aims to develop platforms open to free contributions from a multitude of users. Appearing before the advent of the sharing economy and platform capitalism, the digital commons movement continues to demonstrate its ability to resist domination by the major monopolistic players of GAFAM (Google, Apple, Facebook, Amazon and Microsoft). Another type of alternative explicitly refers to the cooperative tradition to promote collective ownership of the platform by their users.

Digital commons

As part of a long tradition, the commons have sparked fresh interest from academic literature as from 2009, with the works of Elinor Ostrom. Drawing on the study of community-managed natural resources (Common Pool Resources), Ostrom showed that the hypothesis of the tragedy of the commons, which Garrett Hardin (Hardin, 1968) presented as inevitable, could be avoided provided that the groups of users managed to self-organise to implement systems of rules designed to structure the use of the resource and ensure its longevity (Ostrom, 1990). Ostrom also managed to challenge the idea that exclusive ownership is the most effective management mode by showing that, in some situations, distributing the rights of use and governance in the form of a bundle of rights may prove more beneficial (Ostrom & Schlager, 1992). Ostrom's works thus opened up a space, in addition to the market and the State, for creating communities' self-management of resources.

Towards the end of her life, Ostrom broadened her research to knowledge commons in a book co-authored with Charlotte Hess (Hess & Ostrom, 2007). Although immaterial resources have different characteristics from land commons (such as non-rivalry), they can also be managed as shared commons and, in some circumstances, more efficiently than by granting exclusive intellectual property rights. Taking up the critiques already formulated by James Boyle against the gradual enclosure of the knowledge commons (Boyle, 2008), Ostrom and Hess highlight examples such as the production of scientific knowledge by researcher communities or the development of free software by groups of developers to illustrate the success of the Commons approach – which had been given a new breath of life by the possibilities to coordinate and communicate opened up by the Internet. These possibilities make it possible to overcome one of the limitations observed in managing commons-based immaterial resources – i.e. the fact that this form of management tends to lose its effectiveness as the community grows. Digital technology, on the other hand, enables and fosters the emergence of massive projects.

Free software was the first field to develop in this way as from the late 1980s. With Richard Stallman and the GNU-GPL (General Public Licence) it became possible to use copyright not with a view to imposing prohibitions on software users, but on the contrary, to guaranteeing them what are considered to be fundamental freedoms, such as those of having the right to access, modify and re-diffuse source code. These operating principles foster collective software production by developer communities who self-organise in a horizontal mode. The most resounding success of this approach remains the creation of the Linux kernel, which provides an alternative operating system to the Windows legacy system sold by Microsoft. This flagship achievement furnished the proof of the effectiveness of self-organisation in producing complex resources, as well as in sustaining its quality over time. Yochai Benkler coined the term “commons-oriented peer production” to designate the creation of immaterial resources by contributor communities (Benkler, 2006). The same principles were subsequently extended to

the production of other objects also covered by free licences. Examples of this include the collaborative encyclopaedia Wikipedia, which has largely outstripped other initiatives proposed by commercial publishers, or databases such as Open Street Map, which is able to rival Google Maps. With the creative commons licences that appeared in the early 2000s, it became possible to apply this logic to the field of cultural works (literature, photographs, music, videos, etc.), promoting new creative practices such as remix and mashup (Lessig, 2008). One of the most recent developments is the manufacture of material objects. This has been organised through free licences that cover design schematics via the Open Hardware movement, based on spaces like FabLabs or Hacker Spaces.

Thinking on the Commons still has complex relationships to the notion of ownership. Some approaches, while denouncing the excesses of “ownership ideology” (Coriat, 2015), do not reject the institution of ownership per se, but advocate for it to be re-invented in forms that guarantee the inclusiveness exemplified by free digital commons licences. Other currents of thought consider, on the contrary, that ownership is structurally incompatible with the commons principle and hold that commons can only be built on what is “inappropriable”, by replacing ownership with a right-of-use logic (Dardot & Laval, 2015). The way that digital commons fit into the market is also variable. Some projects such as Wikipedia are anchored in the giving economy and operate mainly through voluntary contributions from their supporters. Other initiatives develop economic models based on the market economy, selling services related to the free resources rather than the resource itself. This system is a pivotal strength for the free software sector, as companies can operate through the sale of services without needing to claim exclusive ownership rights for the software itself. Moreover, free licences grant rights of re-use that remain open to economic actors, including traditional capitalist companies. The licensing contract, in fact, refrains from discriminating between the different types of economic actors. Some licences nonetheless allow for more granular arrangements, such as the creative commons licences, where some versions can prohibit the commercial re-use of a resource or its monetisation. In all cases, in the realm of digital commons, market mechanisms or capitalism per se are rarely criticised. What is denounced is rather certain ways in which resources are appropriated – ways that these licences are intended to remedy. In the software sector, a movement such as the open source movement, which emerged after that of free software, even openly claims that it is compatible with commercial companies, by giving precedence to efficiency considerations rather than the values and dimensions originally promoted by the movement.

Organisation-wise, the modalities structuring the digital commons are also very varied. Some projects remain at the stage of informal communities of contributors who coordinate together using digital communication. Others rely on institutions such as the international foundations that provide contributor communities with key infrastructure for content-hosting and production tools without seeking to play a management role in projects. This is the case of the encyclopaedia Wikipedia, backed by the Wikimedia Foundation, but this formula is commonly used for many other initiatives. Michel Bauwens explains that these structures – which he dubs “for benefit” as opposed to “for profit” entities – play a somewhat comparable role to that played by the State through its public services. In other cases, the contributor community may rely on a commercial company that sees an advantage in maintaining a common resource as it can benefit from the community’s contributions in return. The free software Wordpress – which

helps to run nearly 20% of the world's websites – is developed by the company, Automattic, but also by a mass of contributors who propose improvements. In other contexts, entrepreneurial coalitions cooperate to produce free resources, even though they may be competing on other sectors.

The digital commons movement is an example of the capacity to resist the domination of the major monopolistic GAFAM players. Yet, some critics point up the limitations of digital commons when it comes to providing a really autonomous alternative able to ensure its own longevity. A project like Linux – originally developed by a community of voluntary IT professionals – is now over 90% maintained by the employees of large capitalist companies such as IBM, Cisco, Intel, as well as all of the GAFAM. The longevity of some free software in fact depends on support from large digital companies, to the extent that some now refer to them as “capital commons” (Maurel, 2018).

These limitations have led to the emergence of other currents of thought that address the question of alternatives to the dominant forms of the digital economy. This is particularly the case of platform cooperativism, some of whose tenets have been shaped in reaction to what were perceived as the weaknesses of the digital commons, and notably their relationship to ownership.

Platform cooperativism

The term “platform cooperativism” was conceived by Trebor Scholz, an associate professor at The New School in New York who has been running a course on digital labour⁴ for some ten years. In an article entitled “Platform Cooperativism vs. the Sharing Economy” and published on the micro-blogging platform “Medium” (Scholz, 2014), Scholz lays out a detailed critique of platform capitalism and proposes an alternative to this, which he calls “platform cooperativism”. In a short essay, “Platform Cooperativism: Challenging the Corporate Sharing Economy” (Scholz, 2016), he clarifies his vision and lists ten principles that promoters of platform cooperativism should endeavour to apply by creating cooperative platforms and ecosystems that foster their growth: the user's shared ownership of their platform; decent pay for the platform users (in the case of commercial services); transparency in personal data collection and free cross-platform data portability; a dialogue between the platform and its users; work co-determined by the platform users and operators; promotion of a protective legal framework, notably regarding competition between platforms and workers, and labour law; portable worker protections and user social benefits that can be transferred across platforms; protection against arbitrary behaviour on platforms; limits on workplace surveillance; and the right to log off.

Platform cooperativism is above all constructed as a mirror to the alleged abuses of Uberisation and platform capitalism. It is inspired by a critical discourse on the capitalist platforms' practices, seen as based on extractive processes and fostering job insecurity (Slee, 2016 ; Bonici, 2017 ; Srnicek, 2017). It also draws much of its positioning from the criticism of digital labour. In response to the dominant model, the advocates of platform cooperativism make a radical proposal: put the platforms in the hands of their own users. This demand stems from the fact that, while digital platforms have certainly democratised the exchange of goods and services by facilitating access for millions of users to vast electronic spaces where they can

⁴ *Digital labour* is a research stream that studies the modalities of labour on the Internet and denounces particular forms of alienation and exploitation of users found on many digital platforms.

make contact, they have not driven the model as far as shared ownership of these platforms and, beyond that, a fair distribution of the added value they create. In the essay, “Ours to Hack and to Own”, published in an anthology of contributions supporting platform cooperativism (Scholz & Schneider, 2016), Trebor Scholz asks the following question:

Why does a village in Denmark or a town like Marfa in rural West Texas have to generate profits for some fifty people in Silicon Valley if they can create their own version of Airbnb? Instead of trying to be the next Silicon Valley, generating profits for the few, these cities could mandate the use of a cooperative platform, which could maximize use value for the community (ibid. p. 42).

Platform cooperativism appropriates the self-management tradition developed mainly during the long history of the social and solidarity economy (SSE), which it seeks to adapt to the context of the digital economy and sharing platforms. Platform cooperativism thus proposes an alternative model that presupposes that the collective re-appropriation of the tools of production and transaction by the users themselves is a guarantee of greater economic justice on the platforms and a safeguard against their non-ethical abuse.

By allowing all users who so wish to participate via a capital contribution, the platform does not depend financially on a handful of investors but on a multitude of owners. As the owners are direct users of the platform, they are also meant to take decisions that maximise the platform’s utility for the benefit of its users and not for external financial interests pursuing a profit-maximising goal. Moreover, in practice, the co-owners of cooperatives usually keep most of the generated profit in the shared company’s coffers and re-invest in the platform rather than take the profits out. Finally and above all, by virtue of the principle of “one person, one vote”, the cooperative form is intended to ensure that none of the platform owners are able to formally impose their will on the others simply because they have contributed more capital, for example. By allowing for the collective ownership of platforms, the cooperative form is thus designed to guarantee that the platform serves its users’ interests .

In Nathan Schneider and Trebor Scholz’s view, collective ownership could also be hybridised with the practices of the dominant platforms:

Rather than donating Facebook shares to his own LLC, Mark Zuckerberg could put them into a trust owned and controlled by Facebook users themselves. Then they, too, could have a seat in the boardroom when decisions are made about what to do with all that valuable personal data they pour into the platform-and they’d have a stake in ensuring the platform succeeds (ibid. p. 31).

The two authors see platform cooperativism more as an ideal to move towards rather than an absolute and inflexible model:

There will be multiple and sometimes partial means of getting there. A company that shares some ownership and governance is better than one that shares none, and we celebrate that.

We encourage a variety of strategies and experiments. (ibid. p. 21)

Eighty-nine platforms were listed at the beginning of 2019 in the *Internet of Ownership*, managed by the movement’s co-founder, Nathan Schneider. These platforms operate in sectors of activity as varied as their countries of origin: Fairmondo (a German e-commerce platform), Stocksy United (a Canadian platform selling stock images by self-employed photographers), Loconomics (a U.S. platform offering home and local community services), Resonate (a German music streaming platform), among others. The full list includes over 250 structures

associated with platform cooperativism but which are not viewed as cooperative platforms in the strict sense. Examples of these include digital innovations managed by cooperatives but which do not offer peer-to-peer exchanges (like the online collaborative management software, Loomio), or organisations identified as providing support to the platform cooperativism movement (cooperative movement federations, investment funds, associations, cooperatives, mutualised SSE groups). The movement also gathers under its umbrella freelance workers' cooperatives, personal data cooperatives or free software developers' communities.

As can be seen, while the digital Commons and platform cooperativism share the will to resist the domination of the major digital economy players, they implement different means as alternative platforms to achieve this objective. The digital commons implement an open form of solidarity based on a very broad sharing of resources and aimed at aggregating a large number of contributors. Platform cooperativism, on the other hand, promotes a more closed form of solidarity in which sharing is limited to a circle of identified stakeholders but still organised around exclusive ownership that is enforceable against third parties. The democratic aspirations of these movements also take two different forms: the digital commons prioritises peer-to-peer governance whereas platform cooperativism draws its inspiration more from the deliberative principles inherited from the field of the social and solidarity economy.

1.3. The substantive economy as a conceptual framework for analysing sharing platforms

While the field of alternatives to platform-companies is not homogeneous, it nonetheless manifests some common principles of openness, sharing and reciprocity. If these principles are to be fully grasped in the field and explained, a conceptual framework that allows the economy to be viewed more broadly than through a purely market-based prism seems to be necessary. This conceptual framework is furnished by the substantive economy approach developed by Polanyi.

It is to Karl Polanyi that we owe the concept of “substantive economy”. For Polanyi, the market is not the only form that permits the circulation of economic goods and services. In his view, the importance of the market in our societies tends to mask other forms that co-exist with it: reciprocity, redistribution, and the household. He proposes the concept of “substantive economy” to show that, historically, the economy has its roots in humans' dependence on nature and their fellow humans. From this, he deduces the need for people to manage this dependence to ensure their survival. The meaning of “substantive” thus derives from the “man's dependence for his living upon nature and his fellows” (Polanyi, 2011).

Polanyi posits that there has been a deliberate will over the course of history to gradually commodify three factors of production – labour, money and land. This transformation appears as a *sine qua non* for the emergence of a “self-regulating” market (Postel & Sobel, 2010), as the market needs to put a price on raw materials, the number of hours worked and productive assets financed by credit. The market economy thus needs these “fictitious commodities” in order to establish its hegemony and ensure its endless expansion. For Polanyi, this transformation is a priori inconceivable. Labour, money and land are not commodities. Never have these factors been produced to be sold. As such, the process of the great transformation and commodification observed by Polanyi is reversible. If disembodiedness means freeing market forces by breaking the resistance to labour protection, the fight against financial speculation and the protection of nature, re-embeddedness is achieved through consideration

for workers, their protection and emancipation, the use of social money (non-speculative by nature) and through the all-important concern to preserve natural resources and ecological balances. It is thus possible to differentiate those economic actors who contribute to disembeddedness from those who contribute to re-embeddedness. This distinction can be made by observing actors' practices with regard to these three commodities.

In their report, Barbezieux and Herody point up the need for reflection on the transparency, social protection, taxation and sustainability of digital platforms (Barbezieux & Herody, 2016). In fact, platform-companies are producing strong upheavals liable to upend the classical form of labour. New forms of labour are emerging under the umbrella term "digital labour". They do not "taste, look, or smell like labor at all" (Scholz, 2013), and value is created outside of any contractual framework (Casilli, 2015). Studies on digital labour are many and address the valorisation and use of Internet users' personal data, the exploitation of content produced by non-professionals, and the growing instability of some professions (Broca, 2017). Sharing platforms contribute to re-embeddedness by opposing this mounting job insecurity, opting for protective forms such as wage-earning employment, and seeking innovative forms of democratic governance that associate stakeholder communities with decisions on changes in the collective initiative.

Reaffirming the centrality of the democratic dimension, social money can also appear in diverse forms such as time banks, credit union systems, complementary currencies or local social money (Primavera, 2003). As a rule, social money is created to bring back exchange to the grassroots level, create a non-market alternative to the circulation of goods, spawn greater awareness, and support people's and solidarity economies. This is why many authors recognise that social money has more than an economic role and emerges as a political, social and cultural instrument (Albuquerque, 2003 ; Melo Neto Segundo & Magalhaes, 2006 ; Menezes & Crocco, 2009). Analysing social money through the prism of time banks, Soares (2009) asserts that they are:

the reflection of a search to shift the economy towards serving a social objective and reintegrate its values into the socio-cultural sphere. In these conditions, social money must be seen as an openly normative institution that is linked to people who share the same values (ibid., p. 255).

The author also affirms that social money is used in practices intended to reinvent the economy (Soares, 2009). However, social money is a point of attraction for a multitude of small fintech actors, some of whom see the field of electronic money as a new market. The impact of digital platforms is thus important for the nature and future of this social money.

Lastly, the environmental dimension relates to the extent to which an economic initiative is connected to the environmental characteristics of its territory. This means evaluating the action's ecological impacts on its environment. These impacts can be dealt with by controlling the negative externalities generated by the productive activity, or by producing positive externalities. The goal is to recognise the initiative's level of reflection and practice with respect to the environment and to understand how this attention materialises in the collective's daily life. On the counts of sustainability and social utility, the relevance of this dimension depends on there being a balanced relationship between the initiative and its natural environment, and on the construction of ecological utility. Sharing platforms that contribute to this dimension are cognisant of the ecological impact of their own functioning and opt for frugal technologies.

2. Empirical study: examples and methodology

The empirical study draws on nine cases of sharing platforms. The study sample was compiled in collaboration with the association, [La Coop des Communs](#), which partnered our study. Created in 2016, La Coop des Communs comprises commons and EES practitioners, as well as researchers and public actors. Its goal is to help build an ecosystem conducive to the emergence of commons. “Allies, Commons and ESSs can constitute, not residual solutions, but real pillars for sustainable development in a pluralist vision of the economy” (La Coop des Communs, 2018). La Coop des Communs is organised into work groups, including the [Plateformes en Communs](#) group. This took shape around digital platforms open to sharing practices in order to “bring together a set of emerging or existing actors who share these values, within an open community” and “build a mutualised toolbox aimed at operationality, and enable the appropriation of the new peer-to-peer possibilities offered by digital technology” (La Coop des Communs, 2018). The group’s objective is to create, run and equip the platform community in line with a [code of ethics](#) based on five principles: inclusive governance, equitable sharing of value, data ethics, production of commons, and cooperation among members.

By cross-comparing several sampling criteria (including diversity of the development levels of the platform’s activity and the sectors of activity), the team selected nine sharing platforms.

Table 1: Samples taken from the field study (source: authors)

PLATFORMS	
Purpose, status, sources of income	
LES OISEAUX DE PASSAGE	Solidarity tourism A destination factory (a new creative way of coproducing local stories and offers of hospitality and discovery thanks to innovative processes of collective intelligence) and a travel factory (a digital sharing platform to make creating and sharing travel easier).
	SCIC*
	Solidarity-based financing and subscriptions
COOP CYCLE	Bike delivery Open-source meal delivery platform that can be used by bike delivery people grouped into a cooperative. Aims to enable delivery people to share the ownership of their work tool, create conditions conducive to self-organising work conditions, and benefit from mutual social protection.
	Association
	Solidarity-based financing – Individual subscription for delivery people and cooperatives. Mutualised contributions.
RYDIGO	Ride-sharing service Real-time, short-distance ride-sharing platform for daily trips, such as commutes. The Rydigo application operates using a system of virtual money. The application set the price of a trip based on the distance.
	SCOP**
	Commission on transactions & solidarity-based financing
MOBICOOP	Free ride-sharing A cooperative, citizen, ecological and solidarity-based platform.

	The cooperative offers three services: ride-sharing, car-sharing among individuals and solidarity transport for people with no access to shared mobility for reasons of health or due to the digital or territorial divide.
	SCIC
	Solidarity-based financing. User donations – Provision of services
OPEN FOOD France	Short food circuits Aims to extend short circuits on wider a scale in France. The platform offers a range of services: listing of offers, product catalogues, online boutiques, online payment, billing.
	SCIC et Association
	Solidarity-based financing – Subscriptions
1DLAB	Equitable cultural streaming Aims to reinforce cultural diversity and ensure better remuneration for the creators of this diversity via a new sharing of value.
	SCIC
	Subscriptions – Private and social financing
PWIIC	Exchange of services and objects between individuals A European platform that enables local actors to exchange peer-to-peer services, consume professional services (use local professionals), share expenses (e.g., ride-sharing, shared vegetable gardens), or exchange, give or mutualise objects.
	Cooperative under Belgian law
	Solidarity-based financing – model based on contributions. No commission, publishing fees paid with virtual in-house money.
FRANCE BARTER	B2B exchange network A B2B bartering platform that enables companies to exchange goods and services using a virtual currency, the Barter Euro.
	SCIC
	Commission on transactions
FRAMASOFT	Association for education on the defence and promotion of free software
	Association
	Solidarity-based financing (donations)

*SCIC: Société coopérative d'intérêt collectif (collective interest cooperative company)

**SCOP: Société coopérative et participative (cooperative and participatory association)

The data collection methodology relies on secondary data and interviews. The secondary data come from: the platforms' websites, Twitter accounts and other social networks, press articles and radio interviews; the interventions of the promoters-managers of the platforms in seminars organised by the Plateformes en Communs group; answers to a questionnaire sent out in autumn 2018 by Plateformes en Communs, to which four of the platforms in our sample replied.

The interviews were based on guides drawn up for the different categories of actors to be interviewed: platform promoters-managers, workers-contributors (employees, self-employed workers, volunteers, etc.), users, partners (local authorities, territorial players, etc.). We are currently in the process of completing the interviews with platform promoters-managers. Other

interviews with other actors are planned to continue until the end of July. As a result, what we propose here is an intermediate version of our study's findings.

We interviewed the promoters-managers using semi-directive methods. The promoter-manager guide enabled us to cover a number of themes while remaining open to the content of the themes and their sequencing. The themes cover: the respondent's career path and the history of the platform, the platform's activity, the technology policy, the financing and revenue of the activity, the activity's partners-contributors and work organisation, the distribution of power and sharing resources, privileged cooperation and the sector's competitors, desired developments.

The interviews are recorded and thematically coded. The codes were built using an iterative approach based on what emerged from the fieldwork, our research theme at this stage in our research, the approaches developed in the literature on platforms, and the Polanyian framework. The codes cover: the participation of the user-contributor community in the governance of the platform, the ways that rules are drawn up, the hybridisation of resources (market-based, non-market-based, non-monetary), the relationship to the territory, the linkage with public action, the general interest, common goods, resource-sharing and the relationship to ownership, the factoring-in of the different forms of work, and the mechanisms to involve the workers and contributors in decision-making, in organising the activities, in the forms of compensation, protection, emancipation, and the relationship to data ethics.

3. Findings

As the interviews were not finished at the time this communication was written, the findings presented here are only intermediate.

3.1. Sharing platforms and dynamics of embeddedness

We first of all sought to characterise the sharing platforms in our sample. Although these platforms are grouped under the same collective, Plateformes en Communs, their sector of activity and proposals for action are very diverse (cf. Table 1), which makes it difficult to characterise them. However, the Polanyian grid – and notably the question of fictitious goods – helped us to identify their common points despite this diversity. The interviews and data collection thus show that all of the actors in the sample contribute to the re-embedding process on at least one of the fictitious goods identified by Polanyi: land, labour and money.

Generally speaking, we observe a dynamic of re-embedding that operates through the implementation of democratic governance, which prevents the community (of users, contributors) from becoming disconnected from decision-making and control over the platform's development. All the platforms in the collective are thus experimenting with spaces for deliberation. Coopcycle and Open Food France call on the notion of a permanent general assembly to exercise their governance. Some actors use the collaborative decision-making software, Loomio, created by a cooperative in New Zealand. On Pwiic, credits are given in return for participation in cooperative actions such as answering polls, making recommendations or actively exercising one's membership. At Mobicoop, governance is built around the determination to include a broad community in several concentric circles.

Re-embeddedness depends on paying special attention to the question of labour. Thus, Coopcycle's goal is to provide digital support to all the bike delivery cooperatives fighting

against the expansion of self-employed work. The cooperative rationale targeted by Coopcycle involves reintegrating this activity into the realm of wage-earning labour and the associated social protection. IDLAB has written into its charter the determination to guarantee a decent income for the musicians and independent labels with whom they work. When it comes to evaluation, Les Oiseaux de Passage rejects the idea of having a rating system for the cooperative's hosts, who see the danger of "hospitality bias". As one of the cooperative's members commented:

During the preparation workshops, many of our actors felt perverted by the rating system, by the fact that they were becoming the customers' servants, that they had to pay constant attention to their behaviour, but that they no longer had any real exchange with the customers.

As a result, Les Oiseaux de Passage opted for comments in guest books, which customers normally use to give positive feedback. Les Oiseaux de Passage is also organised around three reference points: the Faro convention (cultural heritage and local communities), cooperative principles and human rights.

With respect to money (the second fictitious commodity identified by Polanyi), the members of the Plateformes en Communs collective are particularly innovative. The France Barter project, which links up economic actors on a B2B basis, was based on the proposal for a complementary currency: the Barter. This allows SMEs to create new trade networks where payment deadlines and the usual dependence on cash flow no longer exist. Pwiic proposes purchase vouchers on partner sites to encourage transactions between members of the network. For some platforms, the stated objective is to prevent the access to a resource deemed important from being subject to monetary transactions. This is the case at Mobicoop, which aims to preserve ride-sharing as a "common good", unlike other platforms such as BlaBlaCar, which push individuals to monetise services that were formerly free of charge. At IDLAB, partnerships signed with libraries allow users to access a selection of music without having to pay individually, and instead choose the mutualised purchase of access via the public entity.

When social money is not used, the platforms in our study nonetheless profess logics of reciprocity. For example, Open Food France develops its software using the Ruby programming language under AGPL (Affero General Public Licence). All of the produced code is public and can be modified by everyone. The use of this public licence prevents any future capture of the resource. Relying on a slightly different rationale, Coopcycle has organised itself under a conditional licence that limits the use of its platform to cooperative entities so as to ensure adherence to the values underlying its action (and notably the protection of workers by prioritising the use of paid employment).

With respect to land (the third fictitious commodity), the platforms studied also adopt a firm positioning. Both ride-sharing organisations (Ridygo, Mobicoop) highlight their capacity to reduce transport carbon emissions by sharing and mutualising vehicles. Open Food France promotes short food circuits, while Coopcycle promotes bike deliveries in an intra-city perimeter with Applicolis. Finally, Les Oiseaux de Passage commits to preserving urban space and its natural and cultural heritage.

3.2. Platform alliance strategies and open commons

The logic of re-embedding the fictitious commodities observed in our surveyed sample does not, however, explain anything about the strategies adopted by these platforms. In fact, this re-embeddedness can be achieved not only through a broad logic akin to the open digital commons, but also through a more closed logic of platform cooperativism, as presented in the literature. The interesting point in our fieldwork is that both of these strategies are seen to be combined. What captured our attention in the analysis of the collective is its capacity to combine and create bridges between the two strategies.

Thus, whereas some cooperative platforms have a strictly defined membership, as does the ride-sharing platform Ridygo, or address in priority a category of actors, as for example delivery people on the bike delivery platform, Coopcycle, most of the platforms we studied actually bring about a convergence between the collective ownership approach linked to platform cooperativism, and the logic of open resource-sharing like that of digital commons. These convergences materialise in the mutualisation of resources among different entities on the same platform or among several platforms, and in the will of some platforms to root their action in the general interest.

Internal mutualisation on platforms

Mutualising resources on platforms is achieved in several ways. One example is when several economic entities mutualise a platform and co-develop it for their common use. On Coopcycle, for instance, cooperatives of delivery people contribute together to fund a common logistics platform and decide collectively on the development of new technical functions, the community's strategic orientations and the platform's commercial deployment. The Les Oiseaux de Passage platform emerged out of the wish of several fair tourism actors to develop a platform that could compete with the dominant actors of online accommodation booking (Booking, AirBnb) which have upended the sector's structure. Mostly professionals, the different service providers trading on the platform (hotels, tourist guides, short-term rental, etc.) each pay a monthly subscription so that they can be listed on the platform and carry out transactions. Upstream, they are required to have become members of the local collectives, each of which has one vote in the platform's national governance and are thus in a position to weigh in on the technical and strategic developments of Les Oiseaux de Passage. The situation is quite similar for Open Food France, which groups together different food distribution producers and actors who have joined up to develop a common, the Open Food France platform, in order to organise the logistics of short food supply chains. The producers and distributors freely contribute to the platform's development both financially and by taking part in collective decisions through various deliberative mechanisms, including a "permanent general assembly" using the online collaborative management software, Loomio.

Some cooperative platforms adopt an ecosystem logic whereby the platform involves all stakeholders, or as many as possible, in its governance. This does not necessarily mean placing the creation of the offer or the technical development in the hands of the entire platform user community, but including as many actors as possible in the platform's financing and governance. To this end, many of the platforms we studied have adopted a specific legal vehicle: the SCIC (Société Coopérative d'Intérêt Collectif – collective interest cooperative company). This relatively recent corporate form, introduced in France in 2001, was mainly inspired by Italian social cooperatives. It establishes in French law the possibility for companies

to adopt a multi-stakeholder structure, in that it allows cooperatives to include several different categories of contributors in their membership: the cooperative's employees and service users represent two mandatory categories, and potentially any other category of collaborators along with private or even public partners (with a maximum 20% equity holding), all of which allows for a flexible weighting of each of these colleges in collective decisions. This multi-stakeholder legal status shows a relatively marked symmetry with the structure of sharing platforms, and even more so with cooperative platforms, which give themselves the objective of developing equitable interfaces in which all the actors involved have a voice. Open Food France, Les Oiseaux de Passage, France Barter, 1DLab and Mobicoop have all adopted the SCIC status to run their platforms.

For its governance, Open Food France associates different actors in its value chain in addition to the food producers and distributors: its employees, its contributors as well as its financial partners, which for the moment are two corporate foundations. In the same ecosystem logic, and in addition to its local community of service providers, Les Oiseaux de Passage integrates into its SCIC membership, its employees, considered as research and development researchers working on the platform's development, as well as diverse "prescribers" (travel agencies, works committees, public authorities) that give the platform visibility. Mobicoop, which has a community of 30,000 active people, mixes formal governance – via the SCIC – comprising four categories (volunteers, beneficiaries, and any other natural or legal person) with no weighting among the colleges: each member has one vote and the general assembly has the sovereign right to choose the board members. There are also several "participatory circles" (community, services and products committee, partners, employees) based on membership: some contributors are not cooperative members, and are highly autonomous in what they can propose and how they are organised. An importantly, they also have one seat of the board of directors. As can be seen, in all their initiatives, these cooperative platforms are not monolithic, but do indeed form a diversified ecosystem of actors involved in their activity.

Inter-platform rapprochements and alliances

Less frequently, we see examples of alliances between several organisations that share a common protocol and infrastructure in a federating logic, even if their platform is not "mutualised" in the strict sense of the term. In this case, the entities are fully autonomous with respect to their organisational bodies but they list each other's products and services. They also dispose of technical bridges that allow switching from one platform to another or access to the content of another's website. The Mastodon social network, for example, enables the creation of autonomous community networks that are not directly interlinked but have a common infrastructure. In the same vein, the video-hosting network, Peertube, gives each community its own space, but the network's protocol allows the different spaces to interconnect and potentially reference each other. For these initiatives, code-sharing is under a free licence. The underlying idea is to go beyond the notion of a centralised platform and to distribute content-hosting across a network of actors federated around shared values.

The mutualisation of resources in platform cooperativism also occurs among platforms. The main focus of these exchanges is not so much on technical resources as on informational and symbolic resources. The international movement of platform cooperativism, the French

community of Plateformes en Communs and various other cross-cutting initiatives embody this generation of inter-platform commons, which goes beyond the logic of closed organisations. In this sense, the platform cooperativism movement is playing a crucial role in federating actors. By creating and promoting the concept of cooperative platform as a boundary object (Star & Griesemer, 1989), as well as organising many conferences on the subject,⁵ international activists in the platform cooperativism movement have opened up a space⁶ in which the different cooperative platforms have the opportunity to exchange with one another and transmit their good practice. Outside the circles of practitioners and believers, platform cooperativism also serves to make the initiatives and model more visible to third parties (ESS structures, public authorities, trade unions, free software actors, etc.). It thus fosters opportunities for building alliances with actors that can support cooperative platforms. It also plays an advocacy role vis-à-vis state regulators and helps to raise the general public's awareness of the cause promoted by these cooperative platforms. In France, the association, La Coop des Communs, is now the network that organises French activists and project owners involved in platform cooperativism. Plateformes en Communs assumes the same mission, at its national scale, of putting cooperative platform project promoters into contact, but it has several specific features. Firstly, its thinking is more focused on the commons than on the platform cooperativism movement. Secondly, Plateformes en Communs manages a much smaller community, but one that is more active and with a leaning to building operational resources. Since the beginning of its activities in December 2017, Plateformes en Communs runs work groups between platforms and experts.⁷ These moments of collective discussions enable the platforms to closely examine their models and exchange on the practical issues they are facing. Some of their work has even led to collective projects such as the Digital Commons Consortium, whose purpose is to develop standards for mutualising IT resources and data among organisations. Plateformes en Communs also plays a role in making French cooperative platforms more visible to institutions such as the Mairie de Paris or Caisse des Dépôts at specialist events.

Some platforms create solidarity and commons beyond their direct scope without this being done within the framework of platform cooperativism communities. Open Food France, for example, initiated the Data Food Consortium, an experiment run with other actors from the food sector (La Ruche qui dit Oui, La Cagette, GSOne...) with a view to an inter-organisation sharing of food sector standards and logistics data. Similarly, under the auspices of the association for the promotion of free software, CHATONS (Collectif des Hébergeurs Alternatifs Transparents Ouvertes Neutres et Solidaires – Coalition of hosting companies partnering to decentralise digital infrastructure), today includes several dozen local hosting companies that aim to set up “digital AMAPS” to bring users closer to service providers.

Platforms as a vector of general interest

Some cooperative platforms take up the mission of responding to general interest issues or helping specific categories of beneficiaries. On this count, they do not help only their members

⁵ The first of these is the annual conference Platform Cooperativism in New York.

⁶ A public arena (Cefai, 2016).

⁷ These work groups involve themes such as governance and legal status, economic models and possible sources of financing, software and mutualising resources among platforms.

as many cooperative or associative structures in the social economy may do, but rather serve a cause of general interest following the tradition of the solidarity economy. Ridygo, for instance, works to promote social inclusion by supporting jobseekers with their transport needs. It gives part of its commissions to jobseekers as free credits, in partnership with entities that help people to find employment, such as Pôle Emploi.

Another platform, Mobicoop, promotes ride-sharing as the main goal of its activity. Beyond its own activities, it has taken on a mission of fostering a cultural shift to ride-sharing and mainstreaming its practice. In the same logic, Open Food France has given itself the mission of developing short food circuits for the ecological and health benefits this brings. This mission is also supported by the association that, alongside the commercial SCIC company of Open Food France, embodies the community's political vision and runs awareness-raising actions on this theme.

In the tourism sector, Les Oiseaux de Passage sets the fundamental objectives of defending cultural heritage, human exchange and highlighting inhabitants' communities. Framasoft – which describes itself, first of all, as a popular education structure – also defends its action for general interest objectives as being an individual's control over their data and technological environment, the respect of fundamental rights of the individual, and collective emancipation through technology. In the case of Coopcycle, the aim is to fight against delivery people's job insecurity and to demand work that enjoys the same protection as that of paid employees. Moreover, the platform also aims to implement job insertion activities through the economic activities on its platform. As can be seen, the mission of many cooperative platforms goes far beyond a simple service offering and aims for a broader social transformation that can come about through opening-up and mutualising resources with other actors.

Conclusion

This communication has aimed to highlight initiatives in the sharing economy that present themselves as alternatives to capitalist platform-companies. So far, this type of sharing platform has seldom been addressed in the literature. More particularly, what needs to be understood is what characterises and differentiates their action, and what can help us to identify the strategies implemented by sharing-platform promoters to ensure that their initiative develops in line with their guiding principles. After situating sharing platforms at a conceptual level as possible extensions within the digital commons economy, on the one hand, and cooperative models, on the other, the empirical study based on nine case studies reveals two findings. It was observed that all of the platforms in our sample contribute varyingly to re-embedding transactions carried out on digital platforms, be it with regard to ensuring the welfare of the platform workers and contributors (mainly by including them in the governance), encouraging reciprocal exchange, or paying attention to the impact on the nature of platform-mediated activities. We then observed that the strategy of sharing and open contributions specific to digital commons can coexist and even be combined with a (more closed) cooperativist vision of platforms in which co-managers are clearly defined. On points where the literature might be tempted to oppose the logic of cooperativism to the logic of commons, our case studies show rather a spectrum of initiatives that are more or less open (OpenFoodFrance, Mobicoop, Framasoft) or closed (Les Oiseaux de Passage, Rydigo, 1DLAb), as well as intermediate positions (notably Coopcycle, with the special licence it uses for its software). The seeming opposition derives, in fact, from

the focus on the question of who owns the immaterial assets, a point on which the substantive economy approach and elements in the Polanyian theory make it possible to re-establish continuities. Moreover, some authors propose the concept of “Open Cooperativism” to give a theoretical basis to these convergences (Conaty & Bollier, 2014).

This is an exciting observation as it reveals a pluralism and cohesive action centred on protecting the general interest on digital platforms. This sheds new light on the question of fragility and the very real difficulties involved, as well as on the development and longevity of the action of some of the initiatives studied, provided that the discussion about the renewal of public action induced by these platforms’ action is extended. In fact, the engagement of these mutualistic initiatives centred on the general interest offers a new framework for partnerships between civil society and public authorities. The study’s ongoing fieldwork should show that public authorities’ support is a key expectation for these actors during the start-up and development phases. It should also show that this support could help to prevent these emerging initiatives from becoming the victims of predatory moves by market operators, or from being forced to sacrifice their autonomy to the benefit of large capitalist philanthropic foundations. By fostering the deployment of multi-stakeholder governance, these new structures created along the lines of the collective interest cooperative company (SCIC) – which is also the form chosen by most of the platforms in our sample – are effective vehicles for new partnerships between public and private actors based on public action and general interest. As such, this type of configuration and initiative are in step with the major challenges of the social and ecological transition.

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