

Member-Owned Alternatives: Exploring Participatory Forms of Organising with Cooperatives

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Cooperatives are member-owned organisations, run for the common benefit of their members. While cooperatives are a longstanding way of organising, they have received little attention in CSCW. In this paper, through interviews with 26 individuals from 24 different cooperatives, our focus is an exploratory inquiry on how cooperatives could expand thinking into what future economies can look like and the part technologies may play in them. We discuss (1) the work to make the co-op work, that is, the special effort involved in managing an enterprise in a democratic and inclusive way, (2) the multiple purposes that cooperatives can serve for their members, well beyond financial benefit, and (3) ICT usage within cooperatives as a site of tension and dialogue. We conclude by discussing the meaning and measures of success in alternative economies, and lessons learned for CSCW scholarship on civic and societal organisations.

CCS Concepts: • **Human-centered computing** → **Empirical studies in collaborative and social computing**;

Additional Key Words and Phrases: cooperative, organisation, civic HCI, platform economy, platform cooperativism

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1 INTRODUCTION

There is growing interest in CSCW in understanding alternative ways of organising business enterprises (cf. [11, 62]). In part, this is motivated by the growth of the sharing economy and the platform economy more generally. Indeed, while CSCW technologies have often changed how work has been carried out, the platform economy also changes the allocation of work, working conditions, as well as who gets paid and how much [20]. These developments have inspired renewed interest within CSCW and HCI in understanding and designing for alternative models of governing the socio-technical conditions of work, labour, and civic life. We continue these initiatives by studying

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an old form of organising — the cooperative — which provides a member-owned alternative to the mainstream of organisational forms that have long dominated conceptions of organisations within CSCW: profit-driven private enterprise and public organisations. Through studying cooperatives and their configuration of work and working, we examine more closely elements of *'the pre-sharing economy'* [11].

The cooperative, or co-op, is an enterprise where there is mutual ownership and control of the enterprise by either those employed by it or using its services. They have been viewed as a contemporary alternative to the dominant capitalist system since at least the early 1980s [60]. As an alternative form of organisation, cooperatives face a number of challenges — such as how to organise internally, raise capital, and manage relationships with outsiders — that are distinctive to them and that can hinder their growth and sustainability [39]. It is also worth noting that economic growth is not always the main goal of a cooperative [16]. This has driven some cooperatives to experiment outside the capitalist system, though most often with limited success [38]. This limited success of cooperatives to unseat the dominance of capitalist organisations seems at least somewhat associated with the combined costs inherent in the unique sharing among members of the rights of governance and production [16] and inertia or a lack of agility in a market-driven economy.

For this paper, we interviewed 26 individuals from altogether 24 different cooperatives about their experiences of being part of a cooperative, their cooperative's use of information and communication technologies (ICT), and more broadly what future they see for their own organisation and co-ops as an organisational form. Our interviewees were members of a diverse set of cooperatives; some of them small and/or at a very early stage in their existence, and others much larger and well established. In particular, we discuss (1) the work to make the co-op work, that is, the special effort involved in managing an enterprise in a democratic and inclusive way, (2) the multiple purposes that cooperatives can serve for their members, well beyond financial benefit, and (3) ICT usage within cooperatives as a site of tension and dialogue.

We want to clarify that our aim is not to make overarching empirical claims about cooperatives. Rather, our focus is an exploratory inquiry on how cooperatives could expand thinking into what future economies can look like and the part technologies may play in them. In other words, we are not proposing how to design collaborative technologies for cooperatives — a topic that was touched on in early years of CSCW — but rather try and use cooperative experiences to inspire a creative imagining of alternative forms of organising for CSCW. While cooperatives share much with the profit-oriented and state-run [37] organisations that are the mainstay of CSCW, we intend our paper as a contribution to the growing discourse on new forms of organising, in which cooperatives are positioned as *'the new old'* [11]. Due to commitment to their members and to democratic decision-making processes, cooperatives provide a productively challenging site for CSCW to think anew the goals of the organisations we design for, as well as to re-imagine the world of work and how it is organised.

2 RELATED LITERATURE

In the following sections, we outline the history of research perspectives on cooperatives, before connecting this with the plethora of alternative organisational forms that have been considered in CSCW, including civic and solidarity movements, crowd and gig work, as well as platform cooperativism.

2.1 Cooperatives and member-oriented economic practices

The cooperative has a history stretching back as far as the medieval guild. The modern form of the cooperative was first born in 1844, during the transition to the industrial economy, through formation of a consumer cooperative focused on providing affordable food items — the Rochdale

Society of Equitable Pioneers. The Rochdale Society established the principles of the cooperative movement, which today include: open and voluntary membership; democratic member control; member economic participation; autonomy and independence; education, training and information; cooperation among cooperatives; and concern for community [26]. These are mirrored in the contemporary values of the cooperative movement: self-help, self-responsibility, democracy, equality, equity and solidarity.

Bolstered by endorsement from the UN [42], and with many countries implementing changes to policy in favour of cooperatives, the cooperative movement seems to be having 'a moment'. A recent global survey [43] suggests that there are as many as 2.6 million cooperatives with in excess of one billion memberships and clients. Most recently, the prominence of cooperatives has been associated with the rise and promotion of social entrepreneurship [34], the development of platform cooperativism [53, 54], as well as the growing critique of labour exploitation in the platform economy, along with calls for alternative configurations of crowd work (e.g. [59]). While cooperatives have featured in CSCW and HCI research as a context of study (e.g. on participatory sensing, [44]; co-housing, [23, 29]) and in the form of theoretical contributions on community coordination in volunteer work [6]), there is a relative absence of CSCW literature dedicated to the study of cooperatives as a form of organisation in and of themselves.

In the organisations literature, studies and concepts of private enterprise have dominated — such as in Coase's [10] classic arguments for transaction costs as the rationale for organisation of labour in the firm as opposed to the market. While cooperatives have formed in a range of different settings, they are much less common than privately owned enterprises. Cooperatives are thus a peculiar organisational form that defies both market individuation and the conglomeration of corporations [39]. In economic terms, they can be considered hybrids whereby members share in the value of the organisation, while distributing the labour and associated costs. To varying extents, cooperatives engage in pooling resources (including labour, knowledge and physical resources), within some form of contracted relationship, and with limits or expectations on competition [39], rather than the centralisation of profit for individual gain.

Cooperatives are also, by design, a political endeavour. They have been recognised as a force for social good, and against exclusion and oppression (see [45]). They are not only embedded in particular politico-economic contexts, but they can also progress particular politico-economic goals and ideals. For instance, after changes to legislation on establishing cooperatives in South Africa in 2005, registration grew by a factor of more than 10 [45]. Yet, this proliferation of cooperatives can be seen in stark contrast to the history of racially exclusive farmer cooperatives in South Africa (ibid). Thus, although cooperatives are often understood as a means to empower marginalised workers [46], their vested interest in serving their members makes them a powerful tool of coordinating and controlling resources. We echo Lindtner and Avle [33] in calling for greater attention to the political work of governance and organisational form.

2.2 Civic organising and participatory design

CSCW and HCI researchers have long been concerned with the role of ICT in community and civic organisations, including through the development of approaches to participatory design (PD) and more recently civic technologies. As argued by Pilemalm [48], the recent reinvigoration of civic technology studies reflects an ebb-and-flow of the political emphasis in participatory design, and as such, the discourse of alternatives has resurfaced from more traditional approaches of improving technology integration and adoption [5].

The close ties of PD to the union movements, in Scandinavia at least, has seen it be drawn upon to improve — with workers — their work conditions. This worker-orientation [14] gave rise to the consideration of how workers might better be involved not only in the design of the tools

used for their work, but also collective education and empowerment. As such, in its origins, PD offered a vision of something closer to worker-owned and worker-made technologies, at least in an ideological sense. With the proliferation of networked computing and the birth of CSCW, the trend for studying organisational forms looked more and more at the technologies underpinning remote collaboration. However, these studies have rarely questioned the structures of organised work, focusing more often upon improving efficiency within existing work practices [48].

This focus of PD and CSCW has become increasingly concerned with large-scale and civic systems – variously ‘civic technology’ [8], ‘eGovernment’ [48], and ‘digital civics’ [65]. At the heart of much of this research is the idea that citizens can affect change in their own communities, sharing the stance of the social entrepreneur [34]. While there remains criticism of notions of democracy, participation, and governance through studies of civic technologies, it is clear that reformulations of technologies away from centralised corporations and into the hands of citizens is intended as an alternative form of, and a pathway for, civic engagement, thus dissolving the responsibility from governments and local municipalities [33].

An attention to the political nature of collaborative work has underpinned the turn to civic technologies. This has been most evident in studies of social movements and solidarity economies. The solidarity economy (see [66]), as a primarily human economy, is designed and practiced as non-formalised assemblages based on the dual premise of meeting everyday needs and a political awakening among citizens. While solidarity economies are in contrast to cooperatives in their non-formalised nature, the two share many characteristics. For instance, solidarity economies share with cooperatives the difficulties in coordinating, particularly with a strong ideological resistance to hierarchies. However, without a formal membership, the decision-making processes of solidarity economies are more diverse and reportedly susceptible to manipulation [66].

Closer to traditional consumption, exchange platforms have been argued to have the potential to reallocate wealth away from middlemen and towards small producers and consumers [56]. Initiatives to support local arrangements of peer-to-peer exchange and co-use of resources include food sharing [19] and food markets [49], time banks (see e.g. [3, 4, 57]), as well as tool libraries [55] and other systems meant to help people exchange goods and services within their local community [31, 32, 61]. This can also be applied to computing and computation devices, where platforms for direct and cooperative action on re-use of electronic devices can extend their life and value to people [17]. Here, there are visions of cooperation at work that are intended either as an alternative form of organising consumption or as a complement that seeks to work around or make up for the shortcomings of mainstream models of consumption and ownership.

2.3 Crowd work, gig work, and platform cooperativism

Over the past decade, CSCW scholars have paid increasing attention to the implications and configurations of labour and economic activity, through studies of the sharing and platform economy, and through close examination of various forms of computationally-mediated labour, such as crowd work [12, 21, 22, 24, 30, 35, 36] and more recently gig work [20, 50, 63, 64]. While these do not constitute historically unprecedented logics of arranging labour [2], they still invite us to consider the power dynamics and socioeconomic issues in how work is carried out.

With growing concern over fairness, discrimination, and labour rights [21, 27, 50], scholars and activists alike are exploring alternative, more participatory ways of organising work and labour. In an effort to support crowd workers and enhance their relationships with requesters, scholars have collaborated with workers to intervene in these global markets. The most renowned examples include Turkopticon, an activist system that allows workers to publicize and evaluate their relationships with employers, enabling workers to engage in mutual aid [28], Dynamo, a

platform to support collective action by workers through facilitating the forming of publics around issues and then mobilizing [52], and the self-governed crowdsourcing marketplace Daemo [18].

Moreover, authors have called for efforts to design more equitable and inclusive forms of organising platform labour [1, 47, 53], including cooperatives and other social enterprises. Platform cooperativism, an emerging movement for rethinking the platform economy by building on the long tradition of cooperatives, foregrounds the importance of communal ownership and democratic governance. As Scholz and Schneider [54, p. 11] put it, the goal of platform cooperativism is to find (and bring about) "*an optimistic vision for the future of work and life*" – as an alternative to exploitations and abuses identified in the current platform economy – by "*considering the emerging platforms in light of well-hewn cooperative principles and practices*". The vision is to both challenge cooperatives to take on opportunities that platforms present and to replace the current platform economy with an alternative that puts emphasis on benefiting workers and their local communities.

3 MATERIAL AND METHODS

We build on a qualitative study comprising in-depth, semi-structured interviews with 26 individuals from 24 cooperatives. We chose a qualitative, exploratory approach to gain a holistic understanding of members' experiences of being part of a cooperative, the use of ICTs in cooperatives, and more broadly what future members see for their own organisation and co-ops as an organisational form.

3.1 Participants

We deployed purposive sampling, which involves non-random sampling of individuals, groups, or settings, where the processes and experiences of interest are most likely to be observed [58]. We sampled for members of different types and sizes of cooperatives – both recently formed and long established. The only prerequisite for participation in the study was that the interviewees should be involved in at least one cooperative. We recruited interviewees directly via email, as well as through snowball sampling. Two authors conducted interviews with 26 interviewees representing 24 different organisations. These were individual interviews with one exception, where two interviewees took part together. Due to limited resources, we chose to interview only one representative from each organisation, with two exceptions (DemoCoop and Fusion). While resulting in necessarily partial perspectives, this allowed for a diverse selection of organisations.

Most interviewees were active, central members of their cooperatives. Among the interviewees, there were eleven women and fifteen men. The interviewees' organisations were located across the globe, including United Kingdom, Finland, Germany, New Zealand, Spain, the Netherlands, and the US. Most of the cooperatives were relatively recently established and small in scale. These dealt with a wide range of business areas, including research and consultancy, student co-ops, community-supported agriculture and food, as well as digital platforms. Moreover, we interviewed members from two umbrella organisations for cooperatives, as well as four more established cooperatives. This final category serves as a point of contrast to the smaller and more recently formed cooperatives that were the focus of our study. Table 1 provides an overview of our interviewees and their organisations. We use pseudonyms when referring to cooperatives or interviewees by name.

3.2 Interview Procedure

The interviews were semi-structured and designed to elicit both broad accounts and more detailed descriptions of the interviewees' thoughts and experiences about being part of a cooperative. We started with a conversation about the participant's background, as well as the co-op and the participant's involvement in it. The interview protocol then turned to questions regarding organising as a cooperative and the use of ICT in the different activities related to the cooperative. More

Table 1. Interviewees and their cooperatives

Name	Business Area	Age (years)	No. of Members	Role of interviewee(s)
OpenMarket	Online Marketplace	< 5	< 15	Founder, Active Contributor
CoopMarket	Online Marketplace	< 10	> 500	Founder, CEO
FreshFoods	Food Cooperative	< 10	< 500	Founder, Chair of Board
Bay Leaf	Food Cooperative	< 5	< 100	Founder, Chair of Board
Our Land	Food cooperative	< 10	< 500	Food member, Board member
Alight	Software development	< 10	< 15	Founder, Leadership role
Decenter	Software development	< 1	< 15	Founder
DemoCoop	Cryptocurrency	< 1	< 15	Founder Founder
Peak	Student cooperative	< 1	< 50	Founder, Chair of Board
StudentJobs	Student cooperative	< 5	< 15	Chair of Board
Precis	Training & Consultancy	< 5	< 15	Founder
ChangeMaker	Consultancy	< 5	< 15	Founder
EnviroCall	Consultancy	< 5	< 15	Founder, Board member
ThingTank	Consultancy	< 5	< 15	Founder
Open Case	Research	< 5	< 15	Founder, Chair of Board
Omni	Business management	< 1	< 15	Founder, Chair of Board
Green Eat	Retail, Food	< 1	< 500	Founder, Active Contributor
Ciste Tuaithe	Crowd Investing	< 5	< 100	Member, Employee
DataShare	Umbrella Organisation	< 10	< 50	Secretary of Board
FarmsFood	Umbrella Organisation	> 10	< 100	Chief Executive
City Bike	Retail, Bicycles	> 10	< 500	Founder, Employee
Fusion	Umbrella Cooperative	> 10	> 500	Employee Employee
FarmSales	Livestock Sales	> 10	> 500	Employee
EnergyFund	Community Energy	< 5	> 500	Employee

specifically, we asked about any advantages and drawbacks the participant saw in being organised as a cooperative, as well as of their experiences and thoughts about collaborating with other cooperatives. Before bringing up ICTs specifically, interviewees were asked more broadly about interaction and communication among members and with other stakeholders. All interviewees were also asked about the challenges and opportunities they saw for their organisation. Finally, interviewees had a chance to bring up any remaining issues. The interviews were conducted face to face and over Skype between December 2016 and September 2017. They were 26 to 61 minutes long, with most in the range of 40-60 minutes. All interviewees were provided information on the study and their rights as interviewees, as well as given an opportunity to ask any questions they had, prior to ensuring informed consent. We explained that we were conducting a study on cooperatives, their day-to-day operations, and how these may be changing as a result of the increasing availability of new technologies, highlighting that we were interested in each participant's personal views and experiences. No compensation was offered for participation. 24 interviews were conducted in English and two in Finnish. All interviews were audio-recorded and transcribed verbatim. The quotes presented in the following analysis are either from the English transcriptions or translated from Finnish with a focus on retaining both wording and meaning.

3.3 Thematic Analysis

Given the diversity of business areas and organisational configuration, we selected a thematic analysis (TA) [9] approach which allowed for interpretation across contexts. TA is a way of establishing analytic patterns that occur across a dataset, organizing data by working up from lower level 'codes' to higher level 'themes'. Analysis was conducted following the six stages of TA[9]: Familiarisation with Data, Generation of Initial Codes, Searching for Themes, Reviewing Themes, Defining and Naming Themes, and finally, Reporting. In our case, this process involved phases of collective and individual coding and review.

Following initial phases of familiarisation with the data, carried out by all authors in collaborative data sessions, two authors conducted parallel coding, punctuated with data sessions for coordinating and coming to agreement on themes. Coordination sessions involved discussion on specific codes, their associated textual content and cross-referencing with other interviews. The themes that were being established were periodically reviewed with group data sessions using mind mapping to define themes and their relationships. When all interviews were coded, a final review of the themes was conducted by all authors.

We present our findings below as three higher level themes. We approach cooperatives as an illustrative instance of the complications involved in participatory forms of organising within existing economies that are not designed to support them. In presenting the themes we developed from our analysis, we highlight (1) the work to make the co-op work, (2) the multiple purposes cooperatives can serve for their members, and (3) ICT usage as a site of tension and dialogue.

4 THE WORK TO MAKE THE CO-OP WORK

With the 'work to make the co-op work', we refer to efforts that are particular to running cooperatives. These include configuring membership and participation as well as balancing democratic governance with more pragmatic everyday operations.

4.1 Membership involvement and struggles with consumer attitude

Membership involvement is at the heart of a cooperatives' unique configuration: including membership management from recruiting members to managing departures, challenges of both high and low member turnover, along with issues of communication, coordination, and division of responsibilities. Where membership brings with it the right to governance, these processes become a site for the political configuration of the cooperative in terms of who is 'in' and what is done. There is a key difference in the work of organisations between "doing the thing right" and "doing the right thing" [13]. Driven by their values and the mission to benefit their members, cooperatives focus on doing things the right way and with the right people. Considerable emphasis is placed on creating and sustaining structures that enable the cooperative's activities in line with its values.

While some co-ops in our study were explicitly seeking to take on the status quo and create radical alternatives, others were more tactical in their approach, focusing on benefiting their members and not expanding solidarity beyond their membership. Some interviewees approached co-ops as a *principled thing* driven by cooperative values and purposeful alternative-making:

"Always, when we approach the structural question, what legal form should we choose, what business model, what investment model ... Just because of the people we are ... We would always approach that from first principles and not accept the status quo and just interrogate what are the options, what are our values, and which structure is going to reinforce our values rather than undermine them. Because of conversations like that, we chose to be a cooperative – very intentionally purpose-driven." - Alight

When it comes to recruiting members, several interviewees, in particular those from smaller co-ops, described a resistance to growth. Here, a member of a consultancy co-op discusses the work of recruiting members — selectively, based on shared values and on deliberation about how large the co-op should aim to be:

"That's also why I think we want to keep it kind of small and kind of like ... [we want to be] able to work in EnviroCall with people who we know and we have kind of shared ideas, what we want to do." - EnviroCall

Beyond being selective about members so as to work with the right people, ICTs were described to help in maintaining a sense of togetherness and making activities participatory. This included, for instance, seeking input from regular members when the board needed to make an operational decision. Yet, face-to-face interaction retained a position as a key site for relationship building and fostering the sense of being in it together that motivated many of the co-ops discussed here. As one of the interviewees put it:

"From my experience anyway, a huge part of this stuff is just about actually face to face time. Technology is a part of it and useful, but it's really just about like, can you deal emotionally with people and talking and just seeing how people are and what's going on in their lives." - Decenter

The everyday operations of some co-ops, such as the food co-ops in our study, provided ongoing face-to-face encounters which complemented online communication. More frequently, occasions such as annual meetings and general assemblies served not only their formal function but were also recognised as important opportunities to come together:

"[W]e have a formal AGM once a year. It does formal business, like accepting the accounts, and everybody comes to it. To be honest, it's more of a social in the pub afterwards – It's the one thing you all get together. We close the shop for it, get over the business, and then eat together, and drink together, and that's good. You hear a lot doing that." - City Bike

Yet, while the members we interviewed generally cherished the sense of being in it together, they recognised the effort it takes to cooperate, and were at times frustrated at other members' failure to live up to their expectations of solidarity and active participation. Based on our interviewees' accounts, people who are not used to being members of co-ops can have trouble understanding and adapting to their democratic and participatory organising logics. Especially in the case of the food co-ops whose representatives we interviewed, some members' *consumer attitude* regarding their involvement in the co-op was lamented as challenging:

"I think their idea is also that they don't even think that they could influence the type of things that we are doing. For example, during this past couple of months, I've had some emails from food members who say, 'Well, it's not exactly things that I would want to have in the food bag.' And then I tried to say, 'Well, we need this kind of feedback in order to think and improve,' and then they were surprised." - Our Land

According to our interviewees (who were typically central members of their co-ops), if members were not happy with how things were working out with the co-op, they were more prone to leave the co-op than to bring up their frustrations and concerns or to stay around to show solidarity through a difficult time. This is in contrast to the notion of a participatory mode of the cooperative and the expectation to get engaged in the co-op's activities to fix troubling issues together.

4.2 Democratic governance and the do-ocratic everyday of cooperatives

The balancing of democratic participation with accountability and transparency is essential for reducing the overhead in the day-to-day decision-making process, while maintaining the principles and practices of democracy engrained in the cooperative ideology. It also aligns with the reality at even the smaller and less structured co-ops that there is very commonly a split between a few active members and those who remain more passive (even if loyal) to the co-op.

A repeated pattern in our interviews was that lead individuals (for instance those who had played a role in founding the co-op or sat on its board) did most of the work of making the co-op work. As a result, these lead individuals also had more influence and power over how the co-op worked. While co-ops put an emphasis on democratic and participatory decision-making in principle, in practice those who show up both get to and have to impact decisions more significantly:

"I call it kind of do-ocracy. I don't know if you are familiar with that word, but do-ocracy ... who does it is who has the sort of right to decide." - DemoCoop

The do-ocratic nature of cooperatives was visible in the fact that while roles and responsibilities were divided through a democratic process, in most cases they were not taken up equally by all members. Many interviewees described how the co-op relied on an 'organic' match between skills of individual members and the role they undertake. Further, those more committed to their cooperative were prone to feel that they have little choice other than to shoulder responsibilities such as member management work if they wished to see their co-op continue its activities.

Yet, part of the challenge of some individuals ending up with more responsibility than they would have preferred – and that perhaps is not good for the co-op, either – is that dividing and delegating work requires special effort. Identifying and realising the potential of members could easily become a chore that got dropped in the face of more immediate concerns. Some interviewees talked about being hesitant to reach out to the broader membership for help, fearing that coordinating their contributions would require more effort than they could afford to dispense:

"A big challenge is how we capture the interests and the engagement of our members and wider community to help share the workload on a voluntary basis and balancing that with having excessive communication overheads and people just managing volunteers." - OpenMarket

As digital platforms afford distributed participation, flexible democratic systems can operate at a smaller scale and become more viable at a larger scale. Yet, it has been recognised in cases such as that of Mondragon that a key to success for cooperatives is the effective separation of management from governance [16]. While this creates the potential for a disparity in how individual members contribute to the running of the business, it maintains the equality of access to governance.

5 COOPERATING TOWARDS ALTERNATIVES

We now turn to the multiple purposes that cooperatives served for our interviewees. Many forms of work bring additional benefits, such as job satisfaction and collegiality, in addition to the more obvious financial rewards. Cooperatives, designed to serve their members, take an explicit focus on promoting such benefit, sometimes beyond financial considerations. As our interviewees suggest, participatory organising can both create resilience through a heightened sense of belonging and loyalty, as well as serve as a site for experimenting together and making change.

5.1 Creating resilience: Cooperatives as back-up plans and safety nets

Historically, cooperatives have provided especially marginalised groups a way to weather difficult times together and support one another. The struggles of the co-ops whose members we interviewed are very different from those documented, for instance, in Gordon Nembhard's [41] book on the

history of African American cooperatives. Yet, many interviewees explained how their co-op had been formed in response to shortcomings and problems that the founders had experienced or identified in the economy, in particular in terms of the availability of desirable, safe jobs. In these terms, practical concerns had significantly contributed to the decision to found a cooperative, including the perceived lower barrier to entry in terms of capital, administrative overhead, and regulation. For others, forming a co-op provided a sense of agency and resilience:

"So taking the matters in our own hands... if we are precarious, we are precarious with our own turn, so we can choose the projects and not be so dependent of others." - Open Case

Many of our interviewees echoed the sentiment that being a member of a co-op served to mitigate fears of precarity, absorbing the insecurity of gig work and zero-hour contracts:

"We had only part-time or short-term jobs and we wanted to start EnviroCall to have kind of a backup, if we don't have work anymore. The other thing was that we wanted to also create something like our own business as well. The main thing was that we needed some kind of a backup because the work situation, for many of us, was not that clear at that time." - EnviroCall

Moreover, cooperative employment provides other benefits for flexible working. Some interviewees talked about how being a member of a co-op was a safer choice in terms of social security benefits than becoming a founder of a limited company — as long as certain conditions were met, co-op members could be classified as part-time entrepreneurs, a classification that would not disqualify them from unemployment benefits in the country where they were located.

The goal in forming a co-op (or getting involved in one) was not always to abandon the pursuit of regular jobs in order to gain one's livelihood fully through co-op activities. Rather, many interviewees regarded their involvement in a co-op as a complement to their regular jobs, a safety net that they were not looking to rely on but that made them feel safer simply by being there.

5.2 Experimenting together: Cooperatives as a vehicle for alternative-making

Next to providing a back-up plan, interviewees depicted their co-ops as opportunities to learn and experiment with new ideas and new ways of doing things. Moreover, some of the co-ops were focused on *collective self-help* in order to make up for what members saw as failures and shortcomings in the surrounding world of work and consumption. Beyond this, there was also a clear strand of characterisations of their co-op as a *vehicle for activism*.

The flexible and dynamic nature of co-ops, combined with the perceived low costs of establishing one, created opportunities for our interviewees to engage in experimentation and learning. For some interviewees forming a co-op was the minimal step of opening up potential — be it for growing a business, forming an alternative work community, or creating a new, possibly complementary, source of income. Here, founding members had formed their co-op as an early step in experimenting with an idea or a dream, after winning a student innovation competition:

"We ended up winning the competition. That was super inspiring to us. That was the point where we decided, 'Okay. Then we have to do something concrete.' And after that competition, we founded the company. – We just kept our eyes open for all kinds of possibilities and really openly thought that now we have this kind of a platform, and we can just do whatever we want to do." - ThingTank

This becomes a condition of cooperative ways of doing, where each co-op is an experiment, that connects to the broader experiment of the cooperative movement, and highlights the inevitable highs and lows of cooperative organisations. Although historically, there have been many co-ops

that have tried and failed in experimenting outside the capitalist market system, digitalisation in particular seems to offer a new hope — even if also new concerns — for the democratisation of work. A member of a platform cooperative discussed how the co-op is an experiment that seeks new models that could replace the status quo:

"[W]ithin broader society, there is a huge need to experiment with new models because people are stuck. Society is stuck. People are suffering from this. – We need to do these experiments and sit them out, you know? Live them to the fullest, sit them out, and share our results, share what works, what doesn't work, because we need to come up with a better way." - DemoCoop

The solidarity within and across co-ops serves as a learning experience that built up both members' skills and their confidence in their own and their peers' capacity to take action. The student co-ops discussed here were particularly characteristic of this tendency in that they had been founded to serve their members primarily by matching them for short-term jobs with companies that could be potential employers after graduation. At the same time, running the co-op was itself a way to gain relevant experience and learn entrepreneurial skills.

Instead of aiming at fixing or renewing structures that were perceived as broken, the co-ops of many interviewees had been created with the aim of helping their members navigate within these structures or as a tool for accomplishing personally meaningful goals. As one interviewee put it, cooperatives have gained more traction in the past years because more people are feeling that their needs are not being met and that prompts them to take action:

"Originally, cooperatives have risen from people's needs and from the core conditions and people helping themselves. I think that's still a very valid starting point. – We are seeing that there are now ... People have needs that are not being met and they become active." - ChangeMaker

In another interview, the participant from Omni reflected on the wish that the co-op could "*be some kind of a work community*" that provides continuity in "*today's fragmented world of work*"— a benefit that may do little to improve the members' financial situation but can still add to their quality of life meaningfully, by fostering a sense of togetherness and loyalty.

While co-ops may aim to create alternative economies (or at least alternative economic models), they have to do so in a world that is shaped by private enterprise. To conclude, we note how intercooperation — that is, cooperation with other cooperatives — can serve as a partial answer to this challenge by embedding individual co-ops in a supportive ecosystem. For many cooperatives, umbrella organisations achieve work that can be too burdensome for an individual member but, once done, becomes embedded in these co-ops' ways of working. Our interviewees highlighted how being a co-op opened up access to supportive peer networks that shared similar values:

"here... there's a cooperative association that helps new co-ops with the legal challenges and with developing the statutes but also all the processes from registration to ... we have kind of oversight buddies that we need to register with at the co-op and that also involves some kind of bureaucracy, so we got a lot of help by other co-op associations doing this and, basically, free legal advice on many issues. That's a great advantage." - CoopMarket

Supportive networks are especially important for cooperatives since, individually, they may face particular trouble in securing capital, support, and advice, as they can fall in between the categories of limited companies on the one hand, and civic associations, on the other.

6 ICT USAGE AS A SITE OF TENSION AND DIALOGUE

During the interviews, it became evident that considerations about ICT usage were not at the centre of most interviewees' experiences of co-ops and those who were not actively involved in the platform cooperativism movement did not bring up ICT as a core point of interest. Many preferred face-to-face interaction to using ICTs, wherever possible, and were relatively content with relying on dynamic constellations of readily available tools.

6.1 Negotiating the constellation of ICTs in use

When it comes to ICTs, our interviewees described how their co-ops would combine whatever tools that were conveniently available. In other words, they formed what has been termed a *community artifact ecology* [6, 7], that is, a collection of artifacts that a community uses to support their practices. Paying attention to these multifaceted and dynamic collections that are shaped by members and situations of use, invites us to frame the relationship between communities and technologies beyond the single artifact and beyond a static view of a dedicated technology [6]. As Bødker et al [7] have noted, while these artifact ecologies are messy and complex, people still manage to navigate them even as they span multiple varied activities in the everyday life.

Most interviewees explained that their co-op chose to use tools that were already known to members, preferred by them, and ideally already in use by them, too. Rather than systematically planned, ICT usage was shaped by emerging needs and suggestions from newcomers, especially if they happened to be more interested or skilled with technology than others. Many interviewees noted that there was a resistance to adopting new tools and a strong preference for relying on technologies that members would use in their everyday activities, Facebook being a common example. The ICT constellations described included messaging and social networking services like WhatsApp and Facebook, as well as cloud-based services for storing and sharing documents, in particular Google Drive. Some had adopted or at least experimented with more teamwork specific tools such as Slack for group chats and Trello for task management. Only very few interviewees mentioned tools specifically geared toward democratic decision-making, such as Loomio.

Another characteristic of ICT usage in the co-ops our interviewees represented was that central members could not mandate the use of specific tools unilaterally and, knowing that, they described how they would seek to establish consensus over what tools to use and what each tool should be used for – decisions that changed as situations evolved over time. For example, one participant explained how they had replaced a listserv for member communication with a Facebook group. This had worked well for a time, addressing members' frustrations with emails getting buried or being responded to at a slow pace. At the time of the interview, though, the co-op was having to revisit this choice:

"So now that two out of ten [board members] are not on [Facebook], it doesn't feel functional anymore and now we need to think whether we switch back to email or could it be something else. Like before we didn't have that problem and the Facebook group was a clear improvement to e-mail, so now it feels like, is it the right choice to switch back or should we make a WhatsApp group or something." - FreshFoods

While the set of ICTs our interviewees' co-ops relied on is relatively prosaic, we deem it noteworthy how organically these organisations had been able to put together a set of tools to allow them to manage core aspects of cooperative organising, such as member communication and documentation of activities. Perhaps this dynamic approach seems underwhelming only if we approach the co-ops' ICT usage with an expectation that a single platform or a specifically tailored system would be more desirable. In fact, the dynamic nature of ICT constellations and the way in

which tensions around preferred tools are resolved by placing a higher emphasis on inclusion than efficiency reflects the precarious yet participatory nature of these organisations.

6.2 Scarcity and short-term solutions

Regarding ICT usage, as with many other things, early stage co-ops in particular found themselves surviving hand-to-mouth. This made it difficult to think about automating some operations or adopting more effective tools for burdensome tasks, such as member management. As one interviewee from a more established food co-op explained, it had taken them a number of years to get to a point where they were now able to consider longer-term investments that would free them from repeating processes they already knew were suboptimal:

"We have tried to create a sustainable model all along but one of the biggest reasons stopping that sustainability has been having to think of short-term solutions and cheap ones and those are typically not the best so then we have had to repeat the same things from one year to the next because of bad choices, and use resources to things where we know already while doing them that we'll have to do them again the next year." - FreshFoods

The interview accounts made it clear that most interviewees' co-ops had scant system in place to facilitate their long-term success with the help of ICT. Their struggle to make the most of scarce resources echoes Mullainathan and Shafir's [40] definition of the *scarcity trap* where one ends up having even less than one could have, due to always being one step behind and juggling to get by – both of which contribute to one's scarcity. Exploring or adopting new tools was often seen as a luxury that did not warrant the trade-offs it would entail. As co-ops relied on scarce resources in terms of both capital and members' energies, the informally compiled and ever-changing constellations of familiar tools were considered by many a *good enough* way forward.

Yet, there were counterexamples to this, too. In particular, one participant explained how their co-op had a process in place for constant reflection regarding work practices, including ICT usage. What made the pick and mix approach work for them, much like co-ops' experimentation, was the frequent reassessment and discussion regarding how different tools are used:

"So it is good, periodically, to stop and check how we're using all these different tools, and we do. Every two weeks, we have a retrospective where we say, 'Looking back at the last two weeks, what was good? What was bad? And what are we going to do differently next time?' In a conversation like that, periodically, the topic will come back, 'Hey, I'm really frustrated about all the emails I'm getting' or 'Can we switch off the studio conferencing tool to that one.' That's really the space we negotiate together about how we're using our tools." - Alight

Here, a choice to dedicate time for reflecting on how, and with what tools, things were done was perceived as a successful strategy for making working together more effective and enjoyable. Dealing with ICT usage had the potential to be a site of dialogue, and as such, become another way to highlight that the cooperative was owned and operated by its members, for its members.

7 DISCUSSION

We will now link our findings with recent work in civic and participatory CSCW, as well as the re-emergent focus on labour and economic issues. We propose that the role for CSCW here could be to rethink not only how people work together with the help of technology, but to further reflect on how we approach the work we support and how we might broaden our imagining of the role of organisation for CSCW. To this end, we aim to provide insights on the long-established cooperative organisation and how it is taken up to address challenges in contemporary economies.

7.1 Acknowledging the work of democratic governance and participation

While cooperatives have historically sought to provide a complete alternative to the market economy, they have also offered an alternative in a much more mundane sense, by showing that other ways are possible. Much like the value of contestation in the solidarity economy [66], the cooperative movement provides a lens to reflect on the status quo. The accounts of our interviewees of the formation of their cooperatives highlight the value of experimentation, and the resilience that stems from individuals working together in times of uncertainty.

In line with this experimentation, we can also see a move towards the operationalisation, rather than idealisation, of democratic ways of doing. In our interviews, practicable means of being accountable and transparent and providing processes for oversight made it possible to decouple the cost of participation from the core production of the cooperative. This is not to discard democratic governance entirely, but to understand more carefully what governance means when tied to economic activity. This explicitly calls attention to how different members make their own cooperative. Our interviewees noted the prevalent *consumer attitude*, that is, the tendency of members to 'talk with their feet' and leave when dissatisfied, rather than stick around to fix troubling issues. Democratic forms of organising have an appeal but, as our interviews account, in practice it is far from evident that members will or can put in the required work to make the co-op work.

While much CSCW work on the platform economy has focused on workers' rights [20, 28, 50, 51], we call attention to the need to address the responsibilities of platform consumers [55] — not only as individuals but as members of a community that can affect change by leveraging voice and loyalty [25], rather than resorting to exit when challenges arise. In doing so, it becomes necessary to demonstrate the reciprocal costs of participation in that members' activity has interactional costs, that their absence has management and ideological costs, and that commitment to their own benefit through the cooperative implies solidarity with others. By drawing attention to this 'work' of democratic participation and governance, we can also revisit worker-oriented design [14]. This is perhaps a reflexive call for more feedback on how technologies engage members in the work of alternative-making [6], and a realization that attending to these tools can help them to succeed.

7.2 Rethinking success and scale

Cooperatives are widely recognised as a force for good in local and global contexts (see [42]). They promote employment, job stability, and maintain many values that perpetuate that impact, including education, democracy, and solidarity. They can also compete with large and less principled corporate and commercial organisations. Since the 1980s [60], if not earlier, cooperatives have been understood as presenting the greatest potential for resistance to global capitalism. Even if this resistance has had limited impact, some interviewees held the belief that cooperatives *can* be a powerful force for resistance and activism; while others, in contrast, suggested that this is not necessarily the objective of a cooperative.

The co-ops in our study were predominantly young and relatively small. They varied in their visions and ambitions, but in each case, the balance of membership involvement and *do-ocracy*, whereby someone had to 'do' the work of recruitment, of the co-op dictated the rate of growth that was desired or needed. Some co-ops did not want to grow, and others only wanted to grow when it was mutually beneficial to new members and the co-op. As such, we can see that, unlikely to desire unrestricted growth, some cooperatives choose different paths, including *resistance to growth* and *purposeful growth*. At these scales, cooperatives operate with goals tied to a pragmatic dedication to the widely-scoped benefit to members and to the ideological principles of solidarity, education, and democratic governance. These may appear to be a mismatch with the logics of the surrounding economy.

Across our interviews, it was evident that many co-ops had been sparked by their members' discontent with the (lack of) options accessible to them within the mainstream economy. For example, some co-ops were designed by our interviewees to fit around, in-between, and into gaps in their other employment commitments. Formed as flexible and agile organisations, these cooperatives could bend, collapse, and expand as the members desire and as needed to fit with the surrounding economy. Therefore, one lesson from our analysis is that it is necessary to consider the complex of organisational forms which people work in and with — of which any given co-op is only one part. Cooperatives are more likely to succeed as a part of this complex when they are involved in supportive networks and intercooperation.

Much like the changing nature of the record of work [50], the ability of cooperatives to assess, measure, or demonstrate their successes is evidently challenging as they are a step away from familiar economic metrics. As described by our interviewees, members' benefit may extend to outcomes like gaining a feeling of security by having a Plan B, learning new skills by experimenting with others, or finding a forum for making change with like-minded individuals. In these ways, a co-op can fulfill its purpose entirely without conducting a single economic transaction after its founding. In this, the study highlights the vibrant potentiality of *dormant* organisational forms: like millions of unvisited blogs, co-ops can exist purely through their potential.

These examples prompt us to expand our thinking into what future economies could look like if we considered adopting alternative, member-owned organisational forms, by highlighting valuable outcomes which have little to do with the money that is made, as well as the democratic and participatory mechanisms that can help to bring them about. Linking with prior scholarship on future economies [15], the *alternatives* we discuss here can seem rather mundane. We deem them important in that they provide a piecemeal approach that can both challenge and complement current, often monolithic ways to think about and design for organisations.

7.3 Opportunities for platforms and cooperatives

Lessons for the design of collaborative technologies to support new ways of organising do not follow directly from our study, but we can take guidance on a number of areas which we think are promising for further development. As has been suggested in articulating the vision of platform cooperativism [54], technology plays a fundamental role in the platform economy in a way that it has not traditionally played for the cooperative movement. That digital technology features mostly as piecemeal in our interviews, and the explicit recognition of the peripheral nature of platform cooperatives in the traditional cooperative movement, suggests there is work to be done to bring the two closer. In our view, platform cooperativism is another example of the enthusiasm to, on the one hand, consider how lessons learned from cooperatives could expand our thinking of what future economies can look like and the roles technologies may play in them, and, on the other hand, how contemporary and future technologies could be harnessed to tackle some of the problems distinct to member-owned alternative forms of organising.

First, it should be recognised that the development and use of platforms is in competition for the scarce time of co-op members. Here, we contrast the power of making time for improving practices to free up time and escape the scarcity trap, with the resilience that can stem from dynamically picking up whatever tools are conveniently available rather than investing time or money into adopting tailored solutions. In other words, ICT tools for planning, reflecting, and creating systematic plans for the continuous improvement and documentation of a co-op's activities are needed, but this should be done with lessons about cooperatives' community artifact ecology [6] in mind. In a sense, this means that they may need to go against the typical concern for efficiency. While automation and optimisation have their place, they must be undertaken with sensitivity for the social functions of co-ops and the participatory nature of their activities.

Second, we see further development of intercooperation as a key goal for cooperative platforms, drawing on the shared principles of solidarity and education. This can be used to address some of the limitations our interviewees identified, including pooling resources for specialised tasks as well as the provision of training in broad areas of co-op management and in specific skills in business areas, such as accounting, digital literacy, and so on. Finding ways to pool together when it comes to ICTs is another example of how intercooperation can enable things that would not be feasible for individual cooperatives on their own.

8 CONCLUSION

There are goals beyond financial profit which energise cooperatives. While cooperatives share much with the profit-oriented and state-run organisations that are the mainstay of CSCW, this paper aims to prompt thinking into what future economies could look like if we considered alternative, member-owned organisational forms, as well as the democratic and participatory mechanisms that are central to their functioning. The key contribution of this paper is in opening a discussion of how co-ops might feature in a rethink of the role of organisation for CSCW. We discuss the special effort involved in managing an enterprise in a democratic and inclusive way, the multiple purposes that cooperatives can serve for their members, well beyond financial benefit, and ICT usage within cooperatives as a site of tension and dialogue. Due to commitment to their members and to democratic decision-making processes, cooperatives provide a productively challenging site for CSCW to think anew the goals of the organisations we design for, as well as to re-imagine the world of work and how it is organised.

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