From Commodities to Gifts: Redistributing Surplus Food Locally

Katie Berns and Chiara Rossitto

Department of Computer and Systems Sciences
Stockholm University, Sweden
katie@dsv.su.se, chiara@dsv.su.se

Abstract. This paper investigates the practices and dynamics of a grassroots initiative that takes a non-monetary sharing approach to the issue of food surplus. Food sharing Copenhagen (FS-CPH) is a community-led, volunteer-run organisation working towards reducing food waste by collecting surplus food from supermarkets, bakeries, and private individuals and redistributing it locally, for free. The analysis illustrates the practices of the three main working groups within the organisation, the role of technology within the organization, and how food is framed through a community economies approach.

Figure 1. FS-CPH volunteers and participants during a food-sharing event.

1   Introduction

The issue of food waste has become an environmental and social concern widely discussed across academic disciplines and addressed in political, and public discourse. This paper introduces Food sharing Copenhagen (FS-CPH) a volunteer-based initiative that collectively seeks to address the problem of surplus food by collecting it from supermarkets, bakeries and private individuals and redistributing it in the context of face-to-face sharing events. Research into the operation of such grassroots initiatives is relevant to the discourse on collaborative economies as they illustrate alternative practices for social change and sustainability. The findings presented in this paper outline how FS-CPH works as a socio-technical volunteer organization and how events are practically run and managed. We draw attention to, multiple food framings, that is the different ways food is conceived of through the practices of both volunteers and participants, as it circulates from donors to collectors, distributors and, finally, to participants at the sharing events.

2   Related Work

We position our work at the intersections of the following research areas.

2.1   HCI and Food

In the past decade or so there has been a definite shift in HCI research from focusing on individual interactions to a more complex network-based approach striving to understand the material circumstances and social practices surrounding food (Prost et al., 2018). Older HCI research leans towards treating the 'problems' individuals have with food and working with the assumption that system change can come from within (Grimes and Harper, 2008), researchers are now exploring system change on a collective and community level, exploring design that changes perspectives as well as behaviour. Recent work by (Prost et al., 2018) has engaged with the tensions around environmental, social, and economic goals, and empowering people as 'food citizens' who, operating as part of a community, can have agency within food systems rather than just being mere consumers. In this paper, we marry this concept of food citizenship with Grimes and Harpers' (2008) notion of celebratory technology which calls for HCI researchers to design for positive food experiences as well as those that are problematic. We explore how in the context of food sharing, surplus food can be seen as a problem or as an

opportunity to build community surrounding food, and how digital technology can be used as a tool to facilitate the celebration and sociality of food. An example of such technology which has been designed within a celebratory and community perspective is the work by (Heitlinger et al., 2018) who (concerned with designing for urban diversity and slowness in an urban farming context) designed and implemented an IoT based seed library at a local community farm in the U.K.

2.2   Food Sharing Communities

Although the social practice of food sharing, gifting, or lending has been historically recorded since hunter-gatherer societies as a relationship and community building mechanism, (Kaplan et al, 2005) food sharing has undergone a recent surge in popularity—arguably as a response to food waste (framed as an ecological sustainability issue, or as a social issue of food insecurity) being a widely discussed topic in recent years. Modern food sharing as it is motivated by social or environmental concerns can be situated within the caring-based sharing economy (Light and Miskelly, 2019) and primarily mediated by ICT (Davies and Legg, 2018). Foodsharing.de is one example of current food sharing community, which has been studied by researchers (Ganglbauer et al., 2012; Ciaghi and Villafiorita, 2016). In the context of this community, the sharing of food is, for the most part, framed as a charitable practice with several members reporting that they feel as if they are doing a good thing, or giving food to people in need of help (Ganglbauer et al., 2012). The research carried out on Foodsharing.de is relevant in the context of this paper as the community is credited as the inspiration behind FS-CPH, and although in many ways both communities have overlapping goals and practices, the way in which food is framed is considerably different.

2.3   Community Economies

Grassroots food sharing communities can be seen as existing and operating as a diverse, or community economy, alongside – rather than within – traditional economic structures. This means, for instance, that, although food is a product, and therefore a commodity in terms of the mainstream economy, it is transformed into a gift without any monetary value through the redistribution within the community-sited initiative (Ciaghi and Villafiorita, 2016) is a product of the mainstream economy. A community economies approach brings community involvement to the forefront in concern with ethical practices of coexistence. Researchers argue that a community economy is developed through ethical

choices, rather than structural imperatives (Roelvink et al., 2009). The approach is not necessarily anti-capitalist but post-capitalist in that it is diverse and calls for focusing on difference, rather than dominance, looking at not only economic growth as a measure of success but also environmental factors and social well-being. Communities within this approach are often complicated and messy and require constant negotiation and renegotiation (Gibson-Graham et al., 2013).

3 Method

The empirical material was collected through ethnographic research by the first author of this paper in two separate instances. In November 2018, the author conducted eight semi-structured interviews with highly active volunteers and board members of the organisation, and about six hours of participant observations throughout one food sharing event in Copenhagen, Denmark. Additionally, a short questionnaire was administered with twenty-one event attendees as they waited in line in order to gain an understanding of their reasons and motivations to participate in the food-sharing events, how they had come to know about the community, and how long they have been attending. In March 2019 the first author ran a two-hour workshop with nine additional members of FS-CPH including board members, volunteers, and attendees of food sharing events. Here the focus was on issues of sustainability of food systems, technology use, growth of the community, and what it meant to be a food activist. The data was collected by using card prompts that were created on the foundations of the first data collection by using keywords such as technology, activism, and sharing to initiate an open discussion among the group. The first author transcribed the audio recorded during both data collection sessions, then it was coded and analysed thematically by both authors of the paper.

4 Analysis

In what follows, we first illustrate how food sharing events are organised and run by local volunteers. After introducing the different working groups, we draw attention to three of them: the collection team, the event management, and the marketing and social media team. Given the scope of this paper, we have decided to focus on these three groups because of their integral role in collecting food from donors and making it available at sharing events. Discussing how these groups work to sustain the community and to organise events is instrumental to highlight how collecting, exchanging and sharing food is transformed from

surplus commodities to gifts. In the final section, we illustrate the role of technology for infrastructuring face-to-face food sharing interactions.

Throughout the analysis process of this paper we were drawn to the similarities between how food is framed within the context of FS-CPH and Professor Anna Tsing's (2015) discussion of how in Japanese culture the Matsutake mushroom is entangled with meanings and moves through a flow of framings 'from gifts to commodities— and back' throughout its life cycle. In this paper, we draw on this concept analysing the multiple meanings and framings of the surplus food that is shared 'unconditionally' and in a public setting within the FS-CPH community.

4.1   Food Sharing Copenhagen

Inspired by food sharing communities in Germany (Yunity and Foodsharing.de), the Food Sharing Copenhagen initiative was established in 2016. The initiative is run solely by volunteers who collect surplus food from supermarkets and bakeries in the city and redistribute it locally at three weekly food-sharing events that take place every Monday, Wednesday, and Saturday in three different neighbourhoods in Copenhagen. Participation in the initiative is inclusive and open to any individual who would like to volunteer or attend the events. Likewise, the community welcomes food surplus from a range of private and retail donors. On their website, FS-CPH describe themselves as:

> a community that reaches out to citizens and businesses raises awareness on food waste and leads by example on food waste prevention thus showing them as an activist community acting democratically across a range of stakeholders. (foodsharingcph.org)

FS-CPH has a clear goal of reducing food waste, and in addition to the weekly events, they collaborate with other food-related organisations in Copenhagen such as community kitchen One Bowl. Over time FS-CPH has gradually developed a clear operational structure in line with changing requirements. (new donors, a growing number of participants, second and third events). Our data revealed that the meaning of activism or being an activist against food waste has different meanings across participants, particularly volunteers. Where many volunteers felt that the act of running events and saving food from waste as a form of activism, others felt that the organisation should also focus their efforts on bringing about systemic change—by influencing retailers to change their stock management practices or lobbying local government officials. One volunteer even stated that *'we would know that we were successful as an organisation if we didn't need to exist anymore'* (Roxanna, Volunteer).

The organisational structure of FS-CPH is built around six working groups, the image below (figure 2) introduces the main goals and responsibilities of each working group. Overall, the organisation is led by a board which is elected for six months and consists of nine members who simultaneously act as heads of these working groups. The analyses carried out in this paper addresses the practices of three of these groups the collection team, event management, and marketing and social media. These three groups are integral for the organisation and running of food sharing events, which we focus on in this paper in order to understand the socio-technical dynamics of the community.

Board	
The board is elected for a six month period and consists of nine members which simultaneously act as the heads of the respective working groups. The reason for the six month time period is to accommodate and allow for the many international student volunteers within the community to take part in the organisation at a higher level. The board holds meetings on a monthly basis	
1. Collection The food collection group is separated into two categories, supermarkets and bakeries. The supermarket collection team is made up of three persons, consisting of a driver, a leader, and a volunteer.	**4. Volunteer Management** This working group is in charge of building a community amongst volunteers by organizing various events for volunteers. Volunteer management is in charge of handling general volunteer sign-ups and information.
2. PR & External Representation This working group handles PR and external representation together with a small team of volunteers helping him to get the word out and establish new connections and collaborations. This group deals with all external communication	**6. Marketing & Social Media** This working group handles the brand as well as their online presence. They produce any required visual and informational materials and the website. In addition, they oversee the various social media channels of the organisation.
3. Admin & Finance This working group handles both the organisation's finances as well as general administrative tasks.	**5. Event Management** This working group is split into three parts with a dedicated team for each of the three weekly events.

Figure 2. The organisational structure of FS-CPH (Board and six working groups)

The role of technology and information infrastructures within the organisation is interesting. Although FS-CPH has a web page, they do not operate through a specific platform but through the means of an intricate artifact ecology (Rossitto et al 2014, Bødker et al 2016). FS-CPH utilise an array of free technologies to

coordinate activities between working groups (google document sharing, volunteer management tools) and for both internal and external communication (social media, Facebook messenger). One volunteer reported that their technology choices are driven by two factors: what is free, and what volunteers will regularly use. Social media sites Facebook and Instagram are used for promoting events, recruiting volunteers, and sharing waste prevention tips such as recipes and food storage information. Although it was reported to be problematic, internal communication also takes place using Facebook and Facebook messenger rather than purpose-built platforms such as Slack, as most volunteers already use the platform and are more likely to check it.

The community currently run two food-sharing events that take place every Wednesday, and Saturday in different neighbourhoods in Copenhagen. The process of running an event begins the night before with the first food collection. Teams of volunteers (usually travelling by bicycle) visit bakeries across the city at closing time to collect unsold bread, cakes, and pastries and store them in their own homes until they will be delivered at the event location the next day. The morning of the event at 8:30 am a collection team of three experienced volunteers travel by rental van, the rental of which is paid for by donations, to partnering supermarkets who have agreed to allow FS-CPH to take their unsold/waste food rather than pay to have it taken for incineration. The food collected from supermarkets and bakeries is delivered to the event location two-three hours before the sharing begins. The first of two teams of ten volunteers sort through the food for edible and inedible and organise the food by type ready for event attendees. FS-CPH report to using Facebook to *'promote [their] events'* (Cecilia, FS-CPH Volunteer) but the sharing of food takes place in large group settings using technology mostly for infrastructuring face-to-face interactions. Ten minutes before the event begins the second team of volunteers arrives to take over for the sharing shift where their role is to help distribute the food fairly among attendees and to clean up after the event. An average event will attract approx. 200 attendees who often begin queuing an hour before the event beings eager to fill their bags with free food.

4.2 Food Framings from a Commodity to a Gift

The way food is framed in the context of FS-CPH is complex. The descriptions shared by volunteers and the observed practices of both volunteers and participants illustrate that the food shared within the FS-CPH community is enriched with meaning and cycles through multiple framings—ultimately transforming from a commodity to a gift. The first insight into food framings within FS-CPH can be seen through the tagline of their website' sharing is caring'.

During the interviews conducted volunteers explained that for them the act of sharing food was attached to caring about food waste as a problem and although the food saved during the events is *"just a drop in the ocean"* (Ann-Christine, Volunteer) maybe the act of sharing food in a public setting and the presence of the organisation on social media can *"draw attention to the food waste problem"* (Veslava, Volunteer)

As surplus food is donated by retails stores, collected by volunteers and shared at local events, the values associated with it change. In the socio-economic systems of modern societies, food is generally sold as a commodity: in supermarkets, food is, for instance, an object that can be exchanged through monetary transactions. When FS-CPH teams approach retails outlets, the food they collect is conceived of as waste or surplus, that is, it is not profitable as it is no longer fit for sale. FS-CPH and retail outlets collaborate to (re)invest waste food by reframing it as consumable and, eventually, a gift that can be shared. Jay, a long term volunteer of FS-CPH, shared his vision of the community as *"promoting the idea of just giving without expecting compensation or return."* Likewise, the observations gave a sense of collaboration and community rather than individualism with the operation of the community, relying solely on the active unpaid labour of volunteers who switch between roles and wear several hats during shifts.

The sorting and selection practice is a good example of how food is reframed by FS-CPH volunteers. The donated food is collected from retailers as a waste product i.e. should the volunteers not collect it, it would be collected as waste. The majority of the donated food is pre-packaged fruits and vegetables and considered waste if even just one item in the package is damaged or showing signs of decay. Therefore a central practice of FS-CPH volunteers is to open up these packages and sort the food by that which is edible and inedible.

Another way we interpret food is framed within the organisation is through their sharing practices, the events are promoted and held publicly with no guidelines on who can attend, the food is gifted to anyone *"it doesn't matter if they are poor or rich or I don't know whatever old young student or not"* (Ann-Christine, Volunteer). Volunteers within the community report that people attend the food sharing events for a variety of reasons, likewise when event attendees were surveyed for the purpose of this study and questioned about their reasons for attending, the most common answer was *'for free food'*, with others claiming to attend to *'prevent food waste'* or for social reasons. Christin, another of the interviewed volunteers felt that the fact that organization put the focus on preventing food waste rather than helping people in need created *"a sense of empowerment"* framing the exchange of food surplus as *"doing something good*

for the environment, they don't feel that it's a charity for them, they're doing their part. So, it's a win-win situation." (Christin, Volunteer).

5 Discussion

The organisation and operation of food sharing events rely on the collaborative efforts of multiple stakeholders. The volunteers and donors are central to the community in that they collect, select, and make the food available. Nevertheless, sharing events would not have the same meaning without the attendees' face-to-face participation. It is through the practices of collecting, selecting, and participating in the event as a whole – rather than merely collecting food – that food framings are reconfigured from commodities to gifts. Although motivated by the concern of collectively reducing food waste, the non-monetary gifting of food creates an opportunity to encounter others (McCarthy & Wright, 2015) and, in the long run, to contribute to a change of mentality in relation to how we value food.

Overall, the use of digital technology in this context reflects a concern for sociality surrounding food consumption. This resonates with (Grimes and Harper, 2008) when they call for HCI research to focus on the joy of food rather than the problems often associated with it. Digital platforms enabling document sharing, management tools and social media are utilised for a range of purposes, from coordinating different activities between working groups and advertising events for attendees. What is important to emphasise is that these technologies are not meant to replace the face-to-face interactions around sharing. Food sharing events are, thus, social places where people go for fun to socialise and get inspiration. However, as seen with the Slack example above, the adoption of digital technology is not always straightforward. In a volunteer community context, a discourse on technology becomes more complicated, as the organisation cannot impose rules or guidelines on what technology members should use, it often happens organically and is subject to change (Rossitto et al., 2014, Bøker et al., 2016).

FS-CPH is an example of a community economy formed on the foundation of a *'commonality of being'* (Roelvink et al., 2009). Members collaborate over the shared concern of food waste, and although some participate or are motivated in different ways but they still work as a community through a process of co-existence and interdependence. This means that there is not always consensus. As we have seen within FS-CPH, being an 'activist' has different meanings to different members. Gibson-Graham et al., 2013 argue that embracing difference rather than dominance that is essential for diverse economies, as diversity produces resilience. In the case of FS-CPH, the different approaches to activism

are still centred around a desire to challenge the dominant structure of mainstream food systems.

6 Conclusion

This paper contributes to the discourse on food sharing communities through documenting how FS-CPH, a unique community, is organised as a grassroots initiative and how their events are organised both face-to-face and through digital technology. Drawing on ethnography, the analysis has documented the complexities and opportunities associated with sharing food within a local community and illustrated the collaborative practices that can transform how we perceive and value food. In the discussion, we present a holistic perspective of collaborative economies where we explore the ideas of celebration and encountering others through food, and how difference rather than dominance is the recipe for community resilience.

7 References

Bødker, S., Korsgaard, H., & Saad-Sulonen, J. (2016). "A Farmer, a Place and at least 20 Members": The Development of Artifact Ecologies in Volunteer-based Communities. Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing, 1142–1156. ACM.

Ciaghi, A., & Villafiorita, A. (2016). Beyond food sharing: Supporting food waste reduction with ICTs. 2016 IEEE International Smart Cities Conference (ISC2), 1–6. IEEE.

Davies, A. R., & Legg, R. (2018). Fare sharing: Interrogating the nexus of ICT, urban food sharing, and sustainability. Food, Culture & Society, 21(2), 233–254.

Ganglbauer, E., Fitzpatrick, G., & Molzer, G. (2012). Creating visibility: Understanding the design space for food waste. Proceedings of the 11th International Conference on Mobile and Ubiquitous Multimedia, 1. ACM.

Gibson-Graham, J.-K., Cameron, J., & Healy, S. (2013). Take back the economy: An ethical guide for transforming our communities. U of Minnesota Press.

Grimes, A., & Harper, R. (2008). Celebratory technology: New directions for food research in HCI. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 467–476. ACM.

Heitlinger, S., Bryan-Kinns, N., & Comber, R. (2018). Connected seeds and sensors: Co-designing internet of things for sustainable smart cities with urban food-growing communities. Proceedings of the 15th Participatory Design Conference: Short Papers, Situated Actions, Workshops and Tutorial-Volume 2, 18. ACM.

Kaplan, H., Gurven, M., Hill, K., & Hurtado, A. M. (2005). The natural history of human food sharing and cooperation: A review and a new multi-individual approach to the negotiation of norms. Moral Sentiments and Material Interests: The Foundations of Cooperation in Economic Life, 6, 75–113.

Light, A., & Miskelly, C. (2019). Platforms, scales and networks: Meshing a local sustainable sharing economy. Computer Supported Cooperative Work (CSCW), 1–36.

Prost, S., Crivellaro, C., Haddon, A., & Comber, R. (2018). Food democracy in the making: Designing with local food networks. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems, 333. ACM.

Roelvink, G., Gibson, K., & Graham, J. (2009). A postcapitalist politics of dwelling: Ecological humanities and community economies in conversation.

Rossitto, C., Bogdan, C., & Severinson-Eklundh, K. (2014). Understanding constellations of technologies in use in a collaborative nomadic setting. Computer Supported Cooperative Work (CSCW), 23(2), 137–161.

Tsing, A. L. (2015). The mushroom at the end of the world: On the possibility of life in capitalist ruins. Princeton University Press.

Wright, P. C., & McCarthy, J. C. (2015). The politics and aesthetics of participatory HCI. Interactions, 22(6), 26–31.