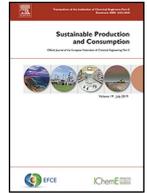




ELSEVIER

Contents lists available at ScienceDirect

Sustainable Production and Consumption

journal homepage: www.elsevier.com/locate/spc

Making “good food” more practicable? The reconfiguration of alternative food provisioning in the online world[☆]

Alice Dal Gobbo*, Francesca Forno, Natalia Magnani

Department of Sociology and Social Research, University of Trento, Italy

ARTICLE INFO

Article history:

Received 18 December 2020

Revised 12 July 2021

Accepted 16 July 2021

Available online xxx

Editor: Prof. Dale Southerton

Keywords:

Digital platforms

Online shopping

“good food”

AFNs

Social practices

Everyday life

ABSTRACT

Food production, distribution and consumption are necessary dimensions of existence and simultaneously exposed to a number of ecological and social fragilities, especially in the contemporary crisis. The reconfiguration of unsustainable systems of food provisioning is thus a priority, geared towards resilience, ecology and equity. Alternative forms of procurement have been part of this effort and a debate is now emerging on whether digital platforms might promote access to them. Yet, an in-depth interrogation of the ways in which digital food consumption becomes part of everyday routines is largely missing. The objective of our article is to understand if and how digitalisation makes alternative provisioning more “practicable”, allowing consumers to engage in what they consider healthier and more sustainable food practices. In so doing, we also look at platforms’ transformative potentials. Their design and ongoing practicing, in fact, not only capture existing needs, but actively shape the overall meanings, material organisation and embodied interactions with everyday food. Our analysis is based on 23 in-depth ethnographic and multimedia interviews with consumers living in Milan, who utilise online alternative forms of food provisioning.

© 2021 Institution of Chemical Engineers. Published by Elsevier B.V. All rights reserved.

1. Introduction

Throughout the past century, systems of industrialised production, distribution and consumption have ensured mass access to fairly priced and varied food for many people, especially to the middle and working classes of the Global North. Nevertheless, this expansive power has proven, in time, unsustainable (Moore, 2015). This is true both in ecological and socio-economic terms, including uprooting of traditional forms of agriculture and food sovereignty, hyper-exploitation of human labour, massive employment of ecologically-damaging farming techniques, threats to human health (Marsden and Sonnino, 2012). Urbanisation has been key, since it has relied on commodified, energy-intensive and high-waste forms of provisioning and consumption (Davies and Legg, 2018). As a response to these challenges, both governance and civil society promote transitions towards sustainability, for more ecological and resilient systems supporting socio-

economic and gender equity, access, security, health and well-being. Throughout the past decades, “alternative” provisioning, especially in the form of alternative food networks (AFNs), has been key to this effort. AFNs are the result of civil society and social community mobilisations, developed to counterbalance the hegemony of industrialised food systems. Farmers’ markets, ethical purchasing groups, community supported agriculture, organic shops, etc. have promoted the re-localisation and re-territorialisation of food (Sage, 2003). Their main strategies have been the shortening of provisioning chains; the promotion of small size ethical agriculture and quality seasonal food at fair prices; the construction of significant relationships of mutual support and trust between producers and consumers (Grasseni, 2014).

Of late, and even more in the context of the Covid-19 pandemic, digital platforms are entering the landscape of alternative food provisioning. As part of a wider “turn” towards collaborative and sharing economy (see Botsman and Rogers, 2010), they promise to make exchange and encounter between producers and consumers more efficient, reduce waste, enable peer-to-peer exchange (De Bernardi et al., 2019). Our article takes issue with this emerging field to critically assess its contribution to food sustainability. In particular, our focus is on everyday food practices. This level of analysis is key to understanding opportunities for greener provisioning systems (Halkier, 2009). Not only does daily demand shape production: contemporary forms of consump-

[☆] This work is part of the ERA-Net SUSFOOD2 transnational project titled Sustainable Food Platforms: Enabling food practices through socio-technical innovation (PLATEFORMS). The research was supported with funding provided by MIUR and co-funding by the European Union’s Horizon 2020 research and innovation programme (Grant number 356-01/03/2019)

* Corresponding author.

E-mail address: alice.dalgobbo@unitn.it (A.D. Gobbo).

tion are directly or indirectly linked to unsustainability, for instance in terms of household food waste and shopping “last mile” (Edwards et al., 2009). Yet, an important challenge for emerging socio-technical food regimes promoting sustainability is to meet the complex organisation of time, space, labour and leisure of everyday life (Warde, 2015). Interrogating daily practices helps to understand the capacity of food digitalisation to fit in or transform the wider fabric of daily habits and meanings, enabling access and sustained adoption (Fuentes and Sörum, 2019).

Based on 23 in-depth ethnographic and multimedia interviews with consumers living in Milan, we explore the meanings and material conditions that lead people to approach alternative forms of online food provisioning, investigating how they become embedded in everyday life and open (or foreclose) opportunities for sustainability. Using social practice theory as an overall guiding frame, this article seeks to understand if and how digitalisation makes alternative sustainable food consumption more *practicable*. On the one hand, this means investigating whether platforms help to adapt otherwise difficult practices of procurement to the organisation of contemporary life, allowing consumers to easily reach what for them is “good food” (Sage, 2003). On the other, we recognise that each platform is not a simple medium but actively shapes practices through its design and ongoing use. Hence, participating in digital procurement might have transformative effects on the way people interpret, handle and value food. We thus contribute to the larger literature on the sustainability of food practices (see Hand and Shove, 2007; Spaargaren et al., 2012; Warde, 2015; Brons and Oosterveer, 2017) by looking at how it is favoured (or hindered) by the use of digital provisioning channels.

The discussion is structured as follows. In the next section, the literature review, we propose an overview of studies on alternative food procurement, with a focus on digitalisation. By also introducing relevant literature from social practice theory, we specify the key concepts that guide data analysis and discussion. Section 3, on methods, contextualises data and describes how they were produced, handled and analysed. Section 4 includes analysis and discussion of the data. Using social practice theory, we investigate three interlocking levels of the digitalisation of alternative food provisioning: first, the purpose for which people approach online food procurement practices (*engagements*); second, the material and practical elements involved in practices, including platforms’ functioning, design and accessibility (*materials and procedures*); finally, the wider meanings and knowledges about food that emerge as shaped in and through engagement in platform provisioning (*understandings*). In the conclusion, we summarise the key insights from data discussion, acknowledge the limitations of our study and propose lines for further research.

2. Literature review

Although alternative food provisioning systems are very diverse, they have a shared objective: providing better access to “good food”, especially to urban average consumers. The phrase “good food” is usefully introduced by Sage (2003: 48) as a heuristic to synthesise the multifaceted characters that consumers look for: embodied properties such as taste, smell, appearance; ecological and social embeddedness (local, natural, environmentally sound, favouring small-scale “humane” economies); relations between producers and consumers; sociality, conviviality, aesthetic pleasures. Among the most renowned examples of alternative “good food” provisioning is Slow Food, a social movement and producer-consumer network of international reach that since 1986 has brought to public attention the concepts of “good” “clean” and “fair” nourishment (Sassatelli and Davolio, 2010). Nowadays, these ideas are being embodied by countless thriving experiences. This points to an interesting (co)evolving space for experimentation of

diverse, more participative and less mediated forms of procurement that can be contextualised in the shift to “collaborative consumption” (see Fraanje and Spaargaren, 2019).

Nevertheless, these alternatives have been put under critical scrutiny for a number of reasons (Forssell and Lankoski, 2015). Key among them, and relevant to our discussion, is that of access. “Good food” provisioning has been seen as niche experience mainly accessed by the white urbanised middle classes, who might as well pursue social distinction (and exclusion) through alternative procurement (Barosh et al., 2014). Price is not the only element at play here. The little variety or uncertainty of products’ availability, the reduced opening hours and time commitments, special distance of procurement venues are other potential obstacles (Corsi and Novelli, 2018). Finally, there are risks of territorial exclusiveness and socially-regressive affirmation of self-interest rather than openings to sustainability in all senses. Albeit these results are not univocal and should be contextualised (Zepeda and Li, 2006), they certainly require caution as to AFN’s capacity to spread and popularize sustainable food.

Other open questions about the sustainability of “good food” procurement lay at the level of everyday life and beyond purchase. Alternative provisioning is surely part of what has been defined “ethical” and/or “political” consumerism, whereby consumers try to shape socio-economic systems through their purchasing power – in this case, towards sustainability (Graziano and Forno, 2012; Klintman and Bostrom, 2012). Nevertheless, reasons for engagement might be hedonistic and selfish (e.g. health and taste) and not altruistic and socially-oriented (Zoll et al., 2018). Furthermore, conviction and commitments do not necessarily translate in a wider shift in overall practices (e.g. reduction in meat consumption, planning, food waste). This might be exacerbated if channels of alternative procurement are not able to convey effective knowledge exchange and learning (ForssellSini and Leena, 2015). In these cases, one should expect that alternative provisioning’s impact for sustainable food practices remains very narrow in scope, leaving consumer habits and meanings roughly untouched.

In this varied and dynamic context, the advent of digital platforms holds both promises and challenges. In line with the wider framing of sharing and collaborative economy, peer-to-peer food networks have been welcomed as a way of making sustainable consumption efficient, easy and accessible to all (Michellini et al., 2018; Fraanje and Spaargaren, 2019). Platforms can work as spaces of seemingly unmediated encounter, promoting “virtual reconstructions” for producers and consumers and consumers among themselves (Bos and Owen, 2016). Through a simplification of logistics, they make it easier and quicker for distant people and strangers to connect and organise orders, transport and collection. This allows to cut on monetary and time expenditure, widening access and reducing environmental impact, making prices fairer for consumers and producers. Food waste might be reduced thanks to peer-to-peer sharing and planning (Davies and Legg, 2018; Fuentes, 2019) and by platforms’ architecture, which promotes more reflexive and less impulsive food shopping (Huyghe et al., 2017). Finally, food platforms can promote socialisation, network building and relationships of trust (De Bernardi et al., 2019), as well as health, well-being and nutrient access (Pitts et al., 2018).

Food platforms’ use is increasing at EU level (Oncini et al., 2020) and there are evidences that people approach alternative food platforms precisely for convenience, quality for money, fresh, healthy and organic food otherwise difficult to access (Schnellbacher et al., 2015), also charging online alternative procurement with sustainability and ethical commitments (Clear et al., 2016). There still are, nonetheless, open questions regarding the digitalisation of alternative provisioning, for instance, regarding CO2 emissions and other environmental indicators (e.g. Belavina et al., 2016; Edwards et al., 2009), as well as contradic-

tions related to socio-economic impacts (Frenken and Schor, 2017). Affective and ideological motivations also lead to resisting digitalisation, as both individuals and AFNs fear depersonalisation and co-optation (Grasseni, 2014).

Of primary interest to our study are, nevertheless, those critiques that problematise the idea of a linear spreading of digitalisation in all realms of life (Hargreaves et al., 2018). That grocery shopping actually goes online, in fact, crucially depends on it becoming a routinised part of food provisioning (Torkkeli et al., 2020). Technology is significant, including commitment, digital literacy and the (good or bad) functioning of food apps. But also common understandings and meanings of food are at play: resistance towards online purchase may derive from people conceiving of food as something to be evaluated on site before purchase (Fuentes, 2019). More than everything, if online food purchase mismatches or contrasts with daily rhythms and spatial arrangements, modes of organising routines, inherited systems of value and taste, novel provisioning is likely to be given up (Brons and Oosterveer 2017; Fuentes and Sörum, 2019). For instance, alternative “good food” platforms do not grant availability of food at any time and are based on weekly scheduled moments of assembly or delivery; this might be hard to incorporate in food practices that have been shaped in accordance with the on-time availability of mass distribution models. A second issue regards the kinds of food available, which might mismatch with people’s values as well as cooking habits and skills (Domaneschi, 2012). Nevertheless, novel practices can shift the “rules and resources of a new regime in the making” (Spaargaren et al., 2012: 11), so the spread of online “good food” provisioning might contribute to transform the very organisation, tastes and meanings of daily food.

From these insights emerges the necessity to further investigate the opportunities and pitfalls of digital provisioning for expanding both the access and the scope of everyday sustainable food practices. For doing so, we adopt a social practice perspective. The theory of social practices is a varied body of work that focuses on *practice* as unit of analysis for research, since it is believed to be one of the key components of the organisation social life (Shove, 2010). Practices are considered as collective and shared, relatively stable, systems of “doing and saying” that become normalised and ingrained in individuals’ everyday life (Hitchings, 2012). For our study, this is important because it allows to resist interpretations of consumption as act of individual sovereign choice; rather, it focalises analysis on those shared material-cultural elements that shape routinised habits, putting constraints but also giving opportunities to social subjects: in our case, digital food provisioning channels.

Relatedly, being “meso-level”, this theory helps to put into light that everyday life matters: i.e. that apparently banal acts are part of larger societal functioning that they contribute to reproduce but also transform. This is important as we look at the ways apparently “private” dealings with food might promote wider change towards sustainability. Finally, emphasis on both symbolic and material aspects allows to look at feasibility, accessibility and concrete transformation of practices not only in terms of abstract systems of values or “interiorly” held attitudes but of their ongoing “making” within the larger whole of everyday life organisation. This can help understanding how and why subjects, who are often willing to change their habits in sustainable ways, struggle to do so – and, conversely, what are the conditions that promote access.

According to social practice theory, food consumption is not restricted to the act of purchase; rather, it is an element distributed across a number of practices related to food, including planning, storing, re-using, cooking, sharing, throwing away (Spaargaren et al., 2012). Furthermore, food consumption is embedded in a wider nexus of practices concerning energy, water and waste (Paddock, 2017). This enlarges analytical lenses to a more

holistic appreciation of everyday (food) sustainability. Taking practice, and not individuals, as main unit of analysis, this approach brings attention to food consumption as shared and collective. Hence, albeit it is normally used to map everyday and household food consumption, it has also demonstrated to be useful in the analysis of collective practices of AFNs – as in the rather unique case of (Fonte, 2013) study of GAS (*Gruppi di Acquisto Solidale*)¹ in Rome. Although our main focus will be on household food practices, this contribution is relevant to our analysis. We will show, in fact, that provisioning through specific, collectively organised, platforms has transformative effects on food practices’ sustainability.

We draw, in particular, on three main concepts derived from the theory of social practices. First, “engagements” (Warde, 2005: 134): the affective motivations that make subjects approach given practices and reproduce them daily – in other words: what makes practices “matter” to people. Engagements are different from interiorly held attitudes as they are built relationally, for instance in becoming competent at doing something. These will be our entry point into the motivations for alternative procurement. Second, we consider the more directly material and bodily aspects of food practices, including “materials” (Hand and Shove, 2007: 84) and “procedures” (Warde, *ibid.*). These categories refers to the objects, tools and infrastructures that form both the environment and the means through which food is dealt with. They also include the embodied skills and know-how required, the processual and routine knowledge of how to carry out tasks. This level of analysis is important, as it highlights the active shaping that sedimented, collective, shared material and digital cultures perform on apparently “individual” practices. It also shows, nevertheless, the active role of subjects, who adapt and reinvent the materials and procedures to changing configurations of practice. Third, “understandings” of food are investigated. As defined by Warde (*ibid.*), understandings refer to the more cultural-symbolic aspect of practices, including collectively shared meanings and systems of values. Yet, they are not simply captured in their abstract form, as subjective interpretations or attitudes: as they are practiced, they link up to bodily activities and materials and (re)produce collective modes of doing and saying. This category is important in investigating what values and commitments to sustainable food are constructed through platform use and how they change over time. Furthermore, it goes beyond people’s views or thoughts: it captures opportunities and obstacles for practicing sustainable food.

3. Methods

This paper explores 23 semi-structured interviews we conducted with people living in Milan between June 2019 and August 2020². Respondents were recruited through a mixture of purposive and snowball sampling, carried out with the help of gatekeepers (e.g. Food Assembly and shop hosts, members of associations’ directory board). We sought for variation in terms of socio-demographic characteristics and city location. The city of Milan was chosen because it best represents the development tendencies of urban contexts, their organisation of space, time, labour and everyday life. The population in the city of Milan is just under

¹ GAS, or alternative purchasing groups, are a social movement that developed and spread in Italy especially. They are based on collective self-organisation of consumers who buy products in bulk directly from selected consumers. The rationale is to have fair prices for both consumers and producers while also ensuring that production meets standards of social and economic equity and environmental sustainability. They involve direct knowledge, relationships of trust and mutual support as well as solidarity (see Graziano and Forno 2012).

² The interviews were conducted as part of the European Project PLATEFORMS, in the context of which a larger data set was produced. 45 interviewees in total were selected among users of five platforms for alternative food provisioning, representing their variety: grassroots or business-driven, analog or digital.

1,4 mln, spread on a very diverse urban area, ranging from a modern and vibrant city centre to town-like suburbs. Since decades, the city has been home to a very active fabric of grassroots movements and initiatives, especially on food; today, it is here that the most advanced digital innovations are being introduced (Oncini et al., 2020). Finally, Milan council is also vanguard in sustainable food governance (Forno and Maurano, 2016).

People interviewed were costumers of Alveare che dice sì (henceforth: Alveare), Cortilia and Buonmercato. The first two are the most popular for-profit platforms in Milan. Cortilia is a delivery service that buys from local producers and provides both box schemes and items on demand (4 cases). Alveare (10 cases) is organised around nodes (Alveari): each Alveare has a manager, who chooses or mediates access with local producers according to an established business policy; the farmers' products become available online for consumers, who order and pay directly from their Alveare website by a closing date; after a few days, their order is ready for pick-up at a set collection point; here, consumers are supposed to meet the producers who deliver their food. Buonmercato, instead, is an association for local, direct and fair food provisioning based in Corsico (in the periphery of Milan) (9 cases). Born 10 years ago, it is a filiation of the GAS movement and inherits its logic, to the point that it is considered by our interviewees a "super-GAS". Differently from GAS, it allows individuals to individually purchase food online, via a website, and in small quantities rather than in bulk. Orders are made by Monday evening and people collect them every week on Friday evenings and Saturday mornings at the association's headquarters.

Participants were asked to produce photo-diaries beforehand, portraying different food moments (such as shopping, sharing, disposing); these were then used as props for discussion over food habits, stirring the conversation in accordance with participants' priorities (Drew and Guillemin, 2014). A semi-structured interview guide aimed at touching upon the different aspects of food practices (e.g. provisioning, preparing, storing, eating...) to highlight both practical and normative issues, for instance ideals of "proper meals" and food sustainability (see Appendix). Interviews were conducted at participants' houses and lasted between 1 and 2 hours. Kitchen tours (Pink and Mackley, 2012) were included. In line with social practice sensitivities, these were occasions to talk about and make visible food spaces, stuff and appliances: they made it possible to delve in concrete and practical elements of daily nourishment, rooting discussion into material elements and aiding specific references rather than abstract reasoning (Halkier et al., 2011). Digital tours of platforms and their use were also part of the design, as well as researcher-produced photos and videos. The latter worked as aids for memory but also conveyed field's characters that are not directly accessible through language, such as particularly significant and expressive details. Overall, this design allowed to better access the concrete material realities of everyday food, as well as meanings and discourses deployed in participant's talk: beyond a representation of food practices that is only language-based, accessing embodied, affective, temporal-spatial aspects³ (Torkkeli et al., 2020).

Analysis proceeded through a thematic coding via a QSR program; codes were generated both according to research interests and emerging issues of concern. This responded to a need of making codes emerge from linguistic and non-linguistic data, as well

³ Roughly half-way in the data production process, the Covid-19 pandemic hit Italy, with a resulting complete lock-down. It was thus impossible to conduct face-to-face interviews, so we migrated to online platforms. Although this certainly implied a less in-depth understanding of the material context of food practices, we tried to maintain the initial design by asking people to move around the kitchen with their cameras and sharing their screen when showing us their use of platforms.

as of acknowledging researchers' conceptual frames and interests (Charmaz, 2017). Again in line with social practice commitments, attention was directed not only to signification but also to the ways spatio-temporal arrangements co-emerge with relational patterns and meaning-making (Torkkeli et al., 2020). One particular focus regarded socio-technical innovations and their integration into everyday life. Hence, we were attentive to narratives of transition, of how consumption, meanings and beliefs got reshaped in encountering digital platforms. This gave a sense of transformation and change (Groves et al., 2016). Conceptual elaboration was then guided by the mapping of practice elements as outlined in the literature review, thanks to an iterative dialogue between theory and empirical observations.

4. Analysis and discussion

Building on the discussion above, our analysis articulates on three levels, which represent key elements of food practices. The first sub-section sees in memories of "good food" the *engagements* involved in alternative platforms provisioning. Secondly, we look at the *materials and processes* that intervene in consumption as enabling or disabling access to "good food". Third, we focus on the ways in which *understandings* of food are deployed and emerge through platform use. Although these conceptual categories are treated as separate for the sake of analysis, it is important to remember that they are co-emerging and interlocking elements of practice that cannot be thought of in isolation or hierarchy: engagements inform procedures, materials respond to, and inform, understandings, understandings and engagements encounter and mutually shape each other. Hence, these conceptual categories will intermingle throughout our discussion.

4.1. Memories of 'good' food

My interest (in food) comes from my mother, she's always been used to buy from farmers, she lives in Tarzo⁴ which offers a lot on that side and I remember this apple juice it had always been part of my life it was always at home ... organic food is surely something that I bring with myself as a family habit maybe it was not so much reflected upon, the reasons are health and taste... as I was saying I have always been used to producers and farmers, to small farms, the taste of food is starkly different through these channels and maybe it is a matter of relations as well. As you go shopping at the supermarket you are in that anonymous cosmopolitan urban situation, instead, if you have the farmer close to your house you go chat a little about other stuff as well, you know him... all this I can no longer afford and yeah I miss this thing.

The discourses that SP (female, 29 years old) voices during our interview in her flat in Milan are very recurrent among our interviewees and are widely attested in the literature on alternative provisioning (see Corsi and Novelli, 2018). SP has indeed approached Cortilia out of a dissatisfaction with mainstream food – one that is largely shared and among the main reasons for approaching alternative provisioning channels. The quality of food in its material and sensory qualities is often mentioned, especially with reference to taste: industrial food is largely tasteless, unsatisfactory and standardised. This is experienced with even more frustration in acknowledging that, especially in the urban context, it is also expensive. So for instance, EC (female, 27 years) repeatedly stresses her frustration with the pears her boyfriend used to buy at the supermarket, since they were "watery", "tasteless" and also "very expensive". Now that she shops from Alveare, instead, she can find fulfilling food that she is ready to pay for. Other aesthetic characteristics are mobilised to describe supermarket food

⁴ A rural town in the North-East of Italy.

as somehow inappropriate: eggs' "texture" or meat consistency are mentioned not only as dislikeable in themselves but also as signals of improper production methods – including environmental pollution, animal mistreatment, impacts of transportation, toxicity. The ubiquitous presence of packaging and plastic, which feels overwhelming and almost uncontrollable, is another strong reason of discomfort. Finally, the experience of shopping itself is mostly perceived as alienating and unpleasant, due to the big and chaotic environment, the de-personalised relations, etc.

As also Davies and Legg (2018) find, albeit dislikeable, this mode of shopping is considered almost "unavoidable" in the context of urban life. First, this has to do with the organisation of space and time in everyday life. Navigating the city environment, often with very tight working hours, imply that people need to concentrate their shopping in limited time, finding "everything in one place". Working hours and family life, furthermore, put constraints on how and when one can go shopping, so often supermarkets are perceived as that place that is "always open". Secondly, there is cost: shopping in proximity specialised shops is too expensive and in the absence of alternatives the supermarket seems the most economically sustainable option. Shopping through mass distribution channels is thus somehow a *necessary evil*, something that people do not enjoy, where the food is a second-best choice – yet, "convenient", "something you cannot do without" (DA, male, 55 years old).

The opening quote suggests one further element in the evaluation of urban food shopping, less recognised in the literature: a *memory* of different, better, food. Dislike of mainstream food is almost always articulated with reference to times and spaces other than the city's. Some examples are self-production in vegetable gardens by the family, availability of farmers' markets close to previous houses, relatives or friends working in agriculture. People bring these faraway memories to the urban context through the embodied experience of close-to-earth eating. They are the ways subjects build specific *engagements* with food purchase, eating and sharing: embodied dispositions and habits, invested memories of culinary enjoyments, desiring pushes. These are felt as distant and unattainable in the city. For instance, SP has found relatively satisfactory jams in the supermarket after careful selection, long searches and comparisons of quality ingredients and costs; but they still are "completely different" and have "nothing to do" with those she used to make from the fruits she and her boyfriend produced in their field back home.

Such memories of "good food" are particularly evident for people whose origins are in the South of Italy, where a large share of Italian agriculture is located and rural heritage has remained most vivid and practiced. People mention buying key ingredients like oil, or wine, through direct contacts. PC (male, 45-year-old), who regularly shops at Alveare, buys oil "once a year from a farm in Calabria, through a friend of mine". Also, specific food is either brought or delivered from the South to Milan via friends, relatives and other informal networks. SS (male, 51 years old, Buonmercato customer) opens our interview showing to me a photo of tangerines:

These come from Calabria, my niece sent a photograph to me and said "come and get them" so I brought them up here, we quickly ran out of them ... it's a family thing, we have some pieces of land ... I have given them to friends... had I had more, I'd have given some to you as well.

As this extract suggests, "good food" is not only characterised by aesthetic qualities: it also involves a whole set of relationalities and practices. It encompasses the often mentioned "direct knowledge", trust and support with producers; family self-production; habits of cooking and conserving food from scratch; meals as social, convivial time. Hence, engagements with "good food" are inseparable from the production and reproduction of material cul-

tures, the organisation of everyday life, the embodiment of cherished ways of being in the world (Hall, 2011).

In turn, these engagements are in relation with wider knowledge, systems of valuation, practical and direct *understandings* of agricultural production processes: for instance, how much effort, commitment and risk they involve. From this derives a more ethical-political orientation that translate in specific practices – e.g. buying directly from producers as people are keener to support the work of small scale artisanal farmers, constructed as repositories of "good food" culture:

My family is from Southern Italy I used to live in a small village so I know the meaning of the land, vegetable gardens, natural foods ... the land is hard to work ... this is also the sense of solidarity economies: I support producers so that they can keep on with their activities. (DA, male, 55-year-old, Buonmercato customer)

For all these aesthetic, embodied and ethico-political reasons, the growing supermarkets' choice of organic or fairtrade products is perceived as better than nothing, but still unsatisfactory. Organic fruits and vegetables in supermarkets are "all alike", suggesting a sort of artificial character to them; transparency on the modalities of production is felt missing; packaging is not avoided; the shopping experience remains alienating and best avoided. This dissatisfaction leads people to the search for alternative forms of buying "good food", where they can find quality and taste, naturalness, ecological sustainability and a more direct relationship with producers, involving support and trust. To them, online platforms that promise "good food" are interesting emerging alternatives to supermarkets. Compared to off-line AFNs, in fact, the way digital shopping is materially and procedurally organised may indeed aid and expand access by making it more easily fit with the organisation of everyday life in the city. This will be considered in the next section.

4.2. Making alternative material flows easier

I was basically hanging around Facebook and found that someone asked about sustainable purchasing groups ... I am quite aware about the environment and so on generally speaking I thought well nice but I do not have the time to properly engage in something like this but someone with my same problem suggested Alveare che dice sì so I registered.

GP (male, 28 years old), thus narrates the way he came into contact with Alveare: a mixture of interest, curiosity and worry towards GAS, which found a solution in the platform. Like him, many of our interviewees using digital platforms, both grassroots and business, often mention the reality of GAS, as if they were a yardstick and point of reference for alternative "good food" provisioning. They often admit to be interested in joining but they fear that participation might involve excessive time and energy commitments. Platforms are perceived as easier instruments for accessing similar foods: shopping is quick, just in time, does not depend on coordination with other people, purchase is made online via credit card and shopping is weekly. As a consequence, despite involving some kind of planning, complexity is reduced. This is true also for many Buonmercato consumers, who tend to combine it with other alternative "good food" provisioning channels, specifically GAS and farmers' markets. For the interviewees who are both Buonmercato and GAS associates the former often functions as support: it provides certain products that are not available via the purchasing groups, since it can count on larger participation numbers and a stronger organisation; furthermore, with the opportunity to buy small quantities of food at a time, both the volume and frequency of shopping are more easily manageable and allows to buy what has run out from larger GAS orders or was forgotten.

In terms of costs, digital platforms are especially convenient when compared to specialised organic supermarkets. These provide food of high standard with the ease of use typical of mainstream supermarkets. But they remain venues for residual shopping and specific products due to their high prices. Platforms' functioning, instead, allows more affordable prices by cutting on intermediation, involving lean logistics and flexible labour (Davies and Legg, 2018): a further way in which they enable people to access "good food" (Michelini et al., 2018). Hence, the materials and procedures embodied in food platforms largely make access to "good food" more fit than off-line alternative provisioning to the contemporary urban organisation of everyday life.

Another sense in which alternative online provisioning enlarges access to "good food" is the "virtual (and not-so-virtual) reconstructions" (Bos and Owen, 2016) that platforms enable. Consumers meet producers at Alveare pick-up points, Buonmercato organises trips and convivial moments to get to know farmers. This produces occasions of knowledge, where "regard" (Sage, 2003) and mutual support are built. Organic supermarkets offer certifications that are perceived as ultimately distant and abstract, while the very practices involved in platforms provisioning afford what are perceived as genuine and trustworthy relations, at least through websites' description and narratives. This materially and practically "empowers the consumer-citizen" (Prothero et al., 2011) to make informed choices. As FB (female, 39-year-old) says,

NaturaSi⁵ may assure me on the fact that animal feed is organic but it does not pacify me as to the farming methods that they are not intensive ... [with Buonmercato] there is trust we have direct contacts with producers.

In this sense, Cortilia interviewees perceive their platform as more problematic, because of the distance and ultimate unknowability of the "reality" of farmers' practices and ethics.

Finally, digital platforms help people to match a strong desire to reduce packaging and particularly plastic with the materials that are actually part of purchases. Many of our interviewees report being particularly happy at the idea of not seeing so much plastic around in the house. Sometimes this is a key motivation to approach the platform:

I was becoming a bit anxious about well using all the plastic of the supermarket so one of the reasons for approaching Alveare was plastic 'cause being... well now all people have awoken to the environmentalist conscience, right?, for various reasons and plastic was the main reason because I was trying hard not to buy it and yet I was realising I kept being overwhelmed, here there is none. (GP)

The ease with which the search for "good food" is matched by the materials and procedures of platforms does not mean that their sustained use is unequivocally manageable or that they are able to exhaust provisioning needs. Platform shopping embodies a completely different logic from that of the supermarket, involving more planning, reflection and organisation – so that making it part of daily consumption is in itself a "labour" (Fuentes and Sörum, 2019). Indeed, our respondents often mention the need to "get used" to this new form, in particular needing to plan for the week and estimate the right weight for groceries. Also, platforms do not always and completely fit into the organisation of everyday life (see Fraanje and Spaargaren, 2019). For instance, it is easy to adapt to Cortilia delivery system if one works from home as in the case of GA (male, 32-year-old), while for SP (female, 29-year-old) this is more complex since she works long hours at the office. Sometimes, she organises delivery there, yet this means bringing the shopping home via the underground. Furthermore, delivery

costs are significant so she does not order at all if she feels it is not worth it. Alveare and Buonmercato, on their part, have tight day and time collection appointments, and if these are not convenient, or one cannot collect that day, shopping becomes unfeasible. Lastly, part of everyday necessities (or desired food) are not present through online platforms and it is necessary to "integrate" them. So, platform use coexists with mass distribution shopping channels, on a regular basis, for most people.

As this makes evident, the extent and modality of platforms' use depend on their capacity to "fit" in everyday life organisation (Fuentes, 2019). But, importantly, as the procedures and scripts become ingrained and integrated with other daily practices, online provisioning also shows a transformative power. Platforms are not merely instruments: they re-shape practices beyond the act of purchase in a process of mutual adaptation. First, the kinds of foods that come to populate kitchens might change rather sharply compared to supermarkets, as platforms offer seasonal local foods, maybe from old varieties. Our interviewees often mention not knowing them or their use, yet, they do not give them up but rather see this as a challenge and discovery: as unexpected matters come into the home, eating becomes an "entertaining" experiment (GA). It widens the food horizon, involving dynamics of "learning" and "re-skilling" (Shove, 2010).

Another element of transformation regards planning and waste reduction. For GA, for instance, shopping on Cortilia has signed a transition from a "casual" and often wasteful shopping style in the supermarket to a "more rational", "optimised" one. The platforms' functioning and design impose time schedules that require mindful shopping; furthermore, as already mentioned in the literature review, they do not push towards compulsive or mindless shopping (VC, female, 45 years old, Buonmercato consumer). Finally, price actively re-shapes food practices even beyond purchase. Cheap food from the supermarket is more easily thrown away or forgotten. Platforms' food is more expensive (especially Alveare's and Cortilia's) so, despite being ready to pay more for "good food", people become more considerate in planning and mindful in use; they also learn to use up precious part of fruits and vegetables that they would have otherwise discarded:

I have learned during this last year ... because of this fixation I have that I always want to have everything at hand in the house I tended to buy too much ... since I buy from Alveare I tend to buy just what is right ... it's because things cost more there but I am happy to pay more for the quality without then things going wasted ... also [as I cook] I try to use every part I can because these natural vegetables cost so one tries to use as much as possible even on the economic level take advantage of everything. (MA, female, 54 years old)

Overall, the procedures and materials involved in online alternative consumption seem to aid the concretisation of "good food" engagements; in particular, they promote sustained access to those "memories" of good food that would otherwise be difficult to match. As IP (female, 40-year-old) synthesises, platforms like Alveare are for her a way to "go back to real fruits", to the experience of the family vegetable garden: a "solution" that "holds together a slightly higher price [than supermarkets and GAS], not too much, with high quality and control over the supply chain". Yet, sustained and significant engagement varies and is not straightforward: it requires commitment and the possibility to adapt daily dealings with food to novel forms of provisioning. Finally, the extent to which online food provisioning might favour significant transitions towards more sustainable food systems requires a further level of practice transformation: a questioning of current food "understandings", with wider implications in terms of lifestyles, everyday politics, systems of value, practical action. This will be investigated in the last section.

⁵ NaturaSi is a chain of specialised organic food shops, present all over Italy. It is the most widespread, well known and trusted of its kind.

4.3. Enacting different understandings of food

As mentioned in the introducing sections, the complexity of food provisioning reaches wider than the mere act of buying or dealing with food items. The organisation of food as commodity in the context of capitalist economy is inseparable from the organisation of productive and reproductive labour, value and the ecological regimes they institute (Moore, 2015). Although these systemic considerations seem far apart from everyday life issues, a closer analysis of our interviews suggests that political *understandings* of food are deployed and practiced even in apparently banal habits. This is true in two senses: people approach certain kinds of platforms out of specific commitments and systems of values; but also, and this is what we investigate specifically, the configuration of platforms themselves corresponds to specific forms of everyday (food) politics. It is in interrogating this “political” level that the sharpest differences emerge between private and grassroots platforms.

For interviewees using Cortilia and Alveare, the platform’s role is to mediate and optimise access to desired products: a way to easily access quality and trustworthy food at sustainable prices. Food is an *end* in itself. The materials and procedures embodied in these platforms resonate with this understanding of food. By design, they aim to reduce time and energy commitments in shopping: pre-ordering and pre-paying on Alveare’s website means saving time while at the venue; Cortilia’s ease of order and home delivery seeks to minimise any effort, engagement or social relation that might come in the way of just getting the desired food. This is part of platforms’ “convenience” but, as also seen above, a source of partial dissatisfaction that is also reflected in the form of social relations, bonds and attachments that are constructed. Cortilia is “impersonal” (GA) and quickly forgotten once it is dropped, as some of our interviews with former customers testify. Alveare is supposed to involve more socialisation and mutual knowledge exchange. Yet, interviewees often remark a *lack* of interaction with other customers and merely occasional short chats with producers (mainly for recipe suggestions), *if and when* they are present. Node managers are the people with whom most relations are built, yet these configure as no more than “commercial friendships” (Perren and Grauerholz, 2015: 140), where efficiency, kindness and a certain entrepreneurial spirit are appreciated because they make shopping easier (e.g. dealing well with wrong deliveries, being flexible with timings for pick up).

As seen in the previous section, this complex of material-procedural elements does produce practice transformation, especially in waste reduction and re-skilling. Nevertheless, a wider and more general change in understandings is less evident (Forsell and Lankoski, 2015). From our interviews emerges that minimal involvement goes hand in hand with a “limited ethical commitment”, as IP says. Consumers might be critical and aware, yet their commitment to sustainability remains within the confines of convenient purchase. This is in line with observations about the sharing/collaborative economy in general: as cases like AirBnB or Uber make patently clear, profit platforms functioning according to market logics initially incorporate sustainability and sociality values but tend to leave them in the background with time. Instead, they reproduce logics of commodification as functionality and growth become primary objectives (Frenken and Schor, 2017). As Fraanje and Spaargaren (2019) note in their social practice analysis of collaborative economy, this has repercussions on the qualities of engagement and habit transformation for users.

Fig.1, 2.

In our case, two main points are to be underscored. First, compared to participative and self-organised forms of purchase, interviewees using private platforms do not report significant change in their (practical and symbolic) understanding of “good food”, nor



Fig. 1. Tangerines from home.



Fig. 2. Different uses for the same vegetable.

a wider appreciation of socio-economic-ecologic food regimes. For instance, for Alveare and Cortilia consumers, going to discount supermarkets and other large scale distribution venues is not perceived as contradictory with “good food” provisioning. Or, considering a very important matter to sustainability, meat consumption (Bonnet et al., 2020), it emerges from our interviews that people using Alveare or Cortilia do not question their normalised and habitual consumption of animal products: in the platform, they simply find a venue for purchasing *better quality* meat. While a nebulous idea of animal welfare might be at work, the fact of farming and killing animals, or that organic meat might not be more sustainable than conventional meat, do not become a matter of interrogation. This suggests that the *overall* organisation of food (and economy) in and outside of the household is not questioned. Second, as again Fraanje and Spaargaren (2019) notice and our interviews confirm, the commodified and instrumental nature of the procedures involved in the platforms also determines less deep engagements and thus increased likelihood to drop or substitute a given platform in favour of more efficient channels.

In this sense, the case of Buonmercato is particularly telling. The materials and procedures involved in Buonmercato shopping are not, on the surface, very different from Alveare’s. Nevertheless, its specificities sharply change the forms of engagement, understanding and overall practicing of food. First, being an association and not a for-profit business, the platform is structurally more participatory, including specific procedures such as associates being asked to attend recurrent meetings and take part to decision-making. Second, the pick-up and dealing with orders relies on vol-

untary work from associates themselves (normally retired or non-working ones are those who more willingly offer their time). Third, at collection, some of the products are to be weighted and prices attributed and this takes time. Finally, the platform is also committed to make associates participate to convivial moments and trips for building direct knowledge of producers. Overall, compared to others, provisioning through Buonmercato demands more time and energy commitment, something that is programmatically avoided in “efficient” market provisioning. This, as Fonte (2013) notices for GAS, is precisely what enables socialisation and knowledge exchange, with the consequence that taken-for-granted habits, meanings and wider understandings are put under critical scrutiny. VS (female, 30 years old, newcomer to Buonmercato), for instance, states that she is thinking about reducing or eliminating meat from her diet after having “chatted with friends” while waiting at the collection point.

The overall understandings involved in food consumption are thereby changed: shopping through the platform has not merely the objective to get food, but rather to sustain economies of solidarity and mutual support in the face of generalised precariousness. As VC quite clearly says:

[Going to Buonmercato] it's been a change in the modalities of food purchase as we discovered that 0miles food or anyway that you buy from the producer and put onto your table is different ... compared to the other platforms we liked Buonmercato since we have come to know it their philosophy of purchasing collectively, meeting producers, helping farmers who are struggling by buying from them, the sense of shopping together avoiding waste... Cortilia is a fantastic network but it does not have this vision it is like a supermarket.

In other words, consuming through Buonmercato feels like being part of a collective and political process rather than of market transactions. This also produces deeper engagements: commitment to the platform and willingness to take care of it even in difficult moments. Some Buonmercato associates for instance report participating since 10 years ago with continuity and despite the old website being “terrible”. They thus show that the importance of platforms’ smooth functioning (see Fuentes, 2019) might be balanced out by engagements: affective attachments and ethico-political commitments. Certainly, a certain ease of use is cherished, especially to increase accessibility to the wider public. But the end is not “convenience” in itself: it is providing equitable and ecologically sound alternatives to mainstream food to as many consumers as possible.

Care for the platform as a collective political project is particularly evident in the Covid-19 emergency. Whereas Alveare consumers testify to have reduced shopping via the platform due to high delivery costs and running out of food; Buonmercato associates continued their shopping as usual: they organised to meet on place, planned shared deliveries and readily established a volunteering network for helping older and other fragile people. For them, solidarity and cooperation favoured resilience but also and especially an “understanding” of food not as mere commodity but as vehicle for collective care. As DC (female, 55 years old) says, “Buonmercato is not only a platform”: it is a way for making a political project more widely available and compatible with people's lives. Hence, there is a key difference between the understandings of food-as-end of private platforms and that of food-as-means embodied in Buonmercato. Participation is certainly driven by the will to access “good food”, but the latter is, in turn, a means of collectively making an-other economy, sociality, ecology. This expands, on the one hand, the scope and depth of engagement with the platform and, on the other, the wider symbolic-material understandings that shape everyday (food) practices.

5. Conclusions

The current crisis poses multiple challenges to mainstream traditional food provisioning systems. Industrialised food production and distribution are two sides of the same exploitative and environmentally damaging dynamic, which nonetheless seems almost unavoidable for consumers, especially in urban environments. Over the last decades, alternative forms of provisioning have emerged, supporting visions of, and access to, “good food”: healthy, local, fresh and seasonal, tasty, fair and sustainable. Yet, alternative “good food” networks have been criticised for remaining niche experiences. Their high costs in terms of price, time, spatial arrangements and planning/organisation seem to make them partially exclusionary – often in spite of the ideologies that guide them. Digitalisation has been saluted as a potential way to expand the scope of their socio-technical innovations, enabling access to sustainable “good food” for wider publics. Nevertheless, this achievement is not straightforward and requires concrete investigation of how, why and when (not) alternative food platform shopping becomes ingrained into everyday habits, meanings and organisation of space and time.

Using the social practice theory as guiding frame, our article set out to understand whether and how platforms make alternative “good food” provisioning more *practicable* – i.e. doable in the context of contemporary urban lifestyles. In so doing, we found that digital systems are not simply means for accessing certain kinds of food: they actively shape practices in specific ways, changing the overall meanings, material organisation and embodied interactions with it. In this, they might also have transformative potentials for improving the sustainability of complex bundles of everyday (food) practices. The multimedia, semi-ethnographic interviews carried out with 23 digital platform consumers in Milan respond to the layered and complex nature of daily practices, comprising concrete, material, embodied and symbolic-discursive elements. 3 platforms were chosen: Alveare che dice sì and Cortilia, two popular for-profit food platforms; Buonmercato, a grassroots initiative emerging from the GAS social movement in Milan. This allowed to investigate how diverse platforms, which embody different understandings of food, shape, but also respond to, different daily food practices. Our analysis has relied on a tripartite conceptualisation of food practices as derived by a synthesis of existing literature. This taxonomy has the analytical function of distinguishing the various elements of practice, yet, as our analysis shows, they are to be treated as inseparable aspects of any practice at both individual and collective level.

First, we identified in memories of “good food” from outside the urban context an element that favours *engagement* with alternative food provisioning, leading subjects to approach and persist in these forms of consumption. Compared to off-line AFNs, the *materials and procedures* (our second layer of investigation) of online shopping seem to make “good food” provisioning more practicable: they make the shopping procedure easier and quicker, simplify logistics and the organisation of payments, etc. Furthermore, at least in principle, they favour “virtual reconnections” and mutual knowledge exchange between producers and consumers. Engaging in platform procurement also changes daily dealings with food beyond purchase towards what are perceived as more sustainable practices: it aids waste reduction and reflexivity, increases the seasonality of diets, know-how and re-skilling with regards to diverse foods. Nevertheless, the feasibility of adoption is not always unproblematic or exhaustive. Alternative “good food” platforms do not cover all needs and their adoption tends to sit alongside the unquestioned perpetuation of mainstream forms of provisioning, especially in the case of Alveare and Cortilia consumers. Furthermore, spatio-temporal organisation might not be textured in everyday routines.

The most significant differences between grassroots and private platforms emerge on a third level, that of *understandings*, considered in the last section of our analysis. Alveare and Cortilia enact food *as end in itself*. Both platforms' scripts and consumers' use align to market logics: the aim is efficient and optimised provision of what consumers identify as "good food". In Buonmercato, instead, the understanding of food is that of a *means*: food consumption becomes one of the vehicles for building and sustaining alternative forms of sociality that go well beyond purchasing, handling and sharing food in the household. Engaging with the platform is a way to collectively cultivate a political project of care and solidarity, fairer economies, non-commodified forms of sociality and healthier ecosystems. Understandings are made of socio-cultural, value and discursive elements. Food-as-end leads to optimising transactions while shrinking the scope of socialisation and knowledge exchange. Here, active participation, energy and time expenditure, commitment, etc. are bracketed out as inefficient and wasteful. Food-as-means, to the contrary, makes them strengths that foreground socialisation, mutual knowledge and critical reflexivity over food provisioning as a whole, attachment to the project, collective inventiveness, resilience and solidarity.

Our study locates in the wider landscape of social practice analyses of sustainable food consumption, providing an in-depth investigation of a rather uncharted territory: how consumers approach and engage in alternative food provisioning via platforms. As individual and household practices are explicitly linked to the peculiar functioning of different platforms, the specificity of our approach lays in bridging daily dealings with food to the wider socio-cultural (material and symbolic) realities in which and through which they get shaped. We have pointed out how platforms politics actually matter, shaping forms of engagement, understanding and procedures of sustainable food practices. Further research is needed in order to expand knowledge of why and how people approach these platforms, and the conditions for sustained use. Above all, we hope that a serious investigation on the transformative potential of alternative food platforms for sustainability will be carried out in the years to come. It will be important to assess their relationship to wider debates over the contradictions of platform capitalism, sharing and collaborative economy. Our reflections have started to highlight promises and open issues in this regard.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix. Interview guide

1. Food Shopping / Provisioning

Can you tell me about the last time you shopped groceries? - When/what/where/who

- (if captured in photo diary use the material)
- How did you plan that shopping trip?
- shopping performance - at the store (online/offline) - variations - after shopping - bringing grocery home/receiving grocery.
- after shopping evaluations of shopping

Can you give me another example of a recent shopping trip? What would you say is a typical (grocery) shopping week for you?

How would you say that [x type of shopping] is different from [y type of shopping]?

Do you have any other way of acquiring food (or drinks)? Could you tell me? - (give examples, sharing, growing your own etc.)

2. Cooking

Can you tell me about the last meal that you cooked/prepared? - When/what/where/whom

- (if captured in photo diary use the material)

Can you give me another example of a recent meal you cooked/prepared? - When/what/where/whom

- (if captured in photo diary use the material)

Who does the cooking in the household? Does this change according to schedule?

Has it changed over time?

Would you characterize yourself as a skilful cook? How/when/where/from whom did you learn to cook?

3. Eating

Can you tell me about the last meal that you had? - When/what/where/who

- (if captured in photo diary use the material)

Can you give me another example of a recent meal? - When/what/where/who

- (if captured in photo diary use the material)

Can you tell me about breakfast/lunch/dinner/snacks?

- When/what/where/whom

- (if the informants do not eat breakfast/lunch/dinner/snacks ask why)

Would you characterize this (breakfast/lunch/dinner/snack) as a "proper" meal?

What would a proper meal entail?

(possible directions: ingredients, drinks, social setting, time frame...)

4. Storing

Where and how do you store your food (and drinks)? Can you show me please?

- Where is it placed - cupboards, fridge, other? - When is it placed there?

- Principle of organization

5. Disposing

What was the last food item that you threw away?

(Ask to see the garbage bin and talk about why it was wasted, by whom, what it was intended for) Photograph garbage bin

Do you have any leftovers in your fridge now? Can you show me, please? (Ask to see the fridge and talk about the leftovers in the fridge.)

What does it consist of?

Why were there leftovers?

What is the plan for the leftovers, will they be eaten or wasted? Photograph the leftovers

What happens with leftovers - how preserved or included into new meals?

6. Platform questions

[These questions have been formulated specifically for the platform/pipeline under study. These questions could be combined with the digital walkthrough. Questions regarding the usage of platforms can and should be asked in every section of the interview]

Can you tell me about the last time you used [name of the platform]? - When/what/where/whom

- (if captured in photo diary use the material)

What did your food provisioning looked like before you were using [name of the platform]?

Which other channels of food provisioning are you using? Can you tell me about those?

Why are you using exactly this platform - what is it offering you?

Further topics to consider:

- Frequency, connection to other activities
- Influence of money, time, availability of products

7. End

Do you think the way you acquire and prepare food has an influence on matters of sustainability?

If you could change one thing regarding your food purchasing and preparing what would that be?

Do you have any other issues or thoughts before ending the interview?

Bibliography

- Barosh, L., Friel, S., Engelhardt, K., Chan, L., 2014. The cost of a healthy and sustainable diet - who can afford it? *Aust. N. Z. J. Public Health* 38 (1), 7–12. doi:[10.1111/1753-6405.12158](https://doi.org/10.1111/1753-6405.12158).
- Belavina, E., Girotra, K., Kabra, A., 2016. Online grocery retail: revenue models and environmental impact. *Manage. Sci.* 63 (6), 1781–1799. doi:[10.1287/mnsc.2016.2430](https://doi.org/10.1287/mnsc.2016.2430).
- Bonnet, C., Bouamra-Mechemache, Z., Réquillart, V., Treich, N., 2020. Viewpoint: regulating meat consumption to improve health, the environment and animal welfare. *Food Policy* doi:[10.1016/j.foodpol.2020.101847](https://doi.org/10.1016/j.foodpol.2020.101847), February, 101847.
- Bos, E., Owen, L., 2016. 'Virtual reconnection: the online spaces of alternative food networks in England. *J. Rural Stud.* 45, 1–14. doi:[10.1016/j.rurstud.2016.02.016](https://doi.org/10.1016/j.rurstud.2016.02.016), June.
- Botsman, R., Rogers, R., 2010. *What's Mine Is Yours: The Rise of Collaborative Consumption*, 1st ed. Harper Business, New York.
- Brons, A., Oosterveer, P., 2017. Making Sense of Sustainability: A Practice Theories Approach to Buying Food. *Sustainability* 9 (3), 467. doi:[10.3390/su9030467](https://doi.org/10.3390/su9030467).
- Charmaz, K., 2017. Special invited paper: continuities, contradictions, and critical inquiry in grounded theory. *Int. J. Qual. Methods* 16 (1), 160940691771935. doi:[10.1177/1609406917719350](https://doi.org/10.1177/1609406917719350).
- Clear, A.K., O'neill, K., Friday, A., Hazas, M., 2016. Bearing an open "Pandora's Box": HCI for reconciling everyday food and sustainability. *ACM Trans. Comput.-Hum. Interact.* 23 (5), 1–25. doi:[10.1145/2970817](https://doi.org/10.1145/2970817).
- Corsi, A., Novelli, S., 2018. Determinants of participation in AFNs and its value for consumers. In: *Alternative Food Networks*, edited by Alessandro Corsi, Filippo Barbera, Egidio Dansero, and Cristiana Peano. Springer International Publishing, Cham, pp. 57–86. doi:[10.1007/978-3-319-90409-2_4](https://doi.org/10.1007/978-3-319-90409-2_4).
- Davies, Anna R., Legg, Robert, 2018. Fare sharing: interrogating the nexus of ICT, urban food sharing, and sustainability. *Food Cult. Soc.* 21 (2), 233–254. doi:[10.1080/15528014.2018.1427924](https://doi.org/10.1080/15528014.2018.1427924).
- De Bernardi, P., Bertello, A., Venuti, F., 2019. Online and On-Site Interactions within Alternative Food Networks: Sustainability Impact of Knowledge-Sharing Practices. *Sustainability* 115, 1457. <https://doi.org/10.3390/su11051457>.
- Domaneschi, L., 2012. Food social practices: theory of practice and the new battlefield of food quality. *J. Consumer Cult.* 12 (3), 306–322. doi:[10.1177/1469540512456919](https://doi.org/10.1177/1469540512456919).
- Drew, Sarah, Guillemin, Marilyns, 2014. From photographs to findings: visual meaning-making and interpretive engagement in the analysis of participant-generated images. *Vis. Stud.* 29 (1), 54–67. doi:[10.1080/1472586X.2014.862994](https://doi.org/10.1080/1472586X.2014.862994).
- Edwards, J.B., McKinnon, A.C., Cullinane, S.L., 2009. 'Carbon Auditing the "Last Mile": modelling the environmental impacts of conventional and online non-food shopping. *Last Mile* 43.
- Fonte, M., 2013. Food consumption as social practice: solidarity purchasing groups in Rome, Italy'. *J. Rural Stud.* 32, 230–239. doi:[10.1016/j.rurstud.2013.07.003](https://doi.org/10.1016/j.rurstud.2013.07.003), October.
- Forno, F., Maurano, S., 2016. *Cibo, sostenibilità e territorio. dai sistemi di approvvigionamento alternativi ai food policy councils*. *Riv. Geogr. Ital.* 123, 1–20.
- Forsell, S., Lankoski, L., 2015. The sustainability promise of alternative food networks: an examination through "alternative" characteristics. *Agric. Hum. Values* 32 (1), 63–75. doi:[10.1007/s10460-014-9516-4](https://doi.org/10.1007/s10460-014-9516-4).
- Fraanje, W., Spaargaren, G., 2019. What future for collaborative consumption? a practice theoretical account. *J. Cleaner Prod.* 208, 499–508. doi:[10.1016/j.jclepro.2018.09.197](https://doi.org/10.1016/j.jclepro.2018.09.197), January.
- Frenken, K., Schor, J., 2017. Putting the sharing economy into perspective. *Environ. Innovat. Soc. Trans.* 23, 3–10. doi:[10.1016/j.eist.2017.01.003](https://doi.org/10.1016/j.eist.2017.01.003), June.
- Fuentes, C., 2019. Smart consumers come undone: breakdowns in the process of digital agencing. *J. Mark. Manage.* 35 (15–16), 1542–1562. doi:[10.1080/0267257X.2019.1686050](https://doi.org/10.1080/0267257X.2019.1686050).
- Fuentes, C., Sörum, N., 2019. Agencing ethical consumers: smartphone apps and the socio-material reconfiguration of everyday life. *Consum. Mark. Cult.* 22 (2), 131–156. doi:[10.1080/10253866.2018.1456428](https://doi.org/10.1080/10253866.2018.1456428).
- Grasseni, C., 2014. Seeds of trust. Italy's gruppi di acquisto solidale (Solidarity Purchase Groups). *J. Polit. Ecol.* 21, 127–221.
- Graziano, P.R., Forno, F., 2012. Political consumerism and new forms of political participation: The *Gruppi Di Acquisto Solidale* in Italy. Edited by Dhavan V. Shah, Lewis A. Friedland, Chris Wells, Young Mie Kim, and Hernando Rojas. *ANNALS Am. Acad. Political Soc. Sci.* 644 (1), 121–133. doi:[10.1177/0002716212454839](https://doi.org/10.1177/0002716212454839).
- Groves, C., Henwood, K., Shirani, F., Butler, C., Parkhill, K., Pidgeon, N., 2016. Energy biographies: narrative genres, lifecourse transitions, and practice change. *Sci. Technol., Hum. Values* 41 (3), 483–508. doi:[10.1177/0162243915609116](https://doi.org/10.1177/0162243915609116).
- Halkier, B., 2009. A practice theoretical perspective on everyday dealings with environmental challenges of food consumption. *Anthropol. Food* doi:[10.4000/aof.6405](https://doi.org/10.4000/aof.6405), no. 55 (September).
- Halkier, B., Katz-Gerro, T., Martens, L., 2011. Applying practice theory to the study of consumption: theoretical and methodological considerations. *J. Consum. Cult.* 11 (1), 3–13. doi:[10.1177/1469540510391765](https://doi.org/10.1177/1469540510391765).
- Hall, Sarah Marie., 2011. Exploring the "Ethical Everyday": An Ethnography of the Ethics of Family Consumption. *Geoforum* 42, 627–637. <https://doi.org/10.1016/j.geoforum.2011.06.009>.
- Hand, M., Shove, E., 2007. Condensing practices: ways of living with a freezer. *J. Consum. Cult.* 7 (1), 79–104.
- Hargreaves, T., Wilson, C., Hauxwell-Baldwin, R., 2018. Learning to live in a smart home. *Build. Res. Inf.* 46 (1), 127–139. doi:[10.1080/09613218.2017.1286882](https://doi.org/10.1080/09613218.2017.1286882).
- Hitchings, R., 2012. People can talk about their practices. *Area* 44 (1), 61–67. doi:[10.1111/j.1475-4762.2011.01060.x](https://doi.org/10.1111/j.1475-4762.2011.01060.x).
- Huyghe, E., Verstraeten, J., Geuens, M., Van Kerckhove, A., 2017. Clicks as a healthy alternative to bricks: how online grocery shopping reduces vice purchases. *J. Mark. Res.* 54 (1), 61–74. doi:[10.1509/jmr.14.0490](https://doi.org/10.1509/jmr.14.0490).
- Klintman, M., Bostrom, M., 2012. Political consumerism and the transition towards more sustainable food regime. looking behind and beyond the organic shelf. *Food Practices in Transition: Changing Food Consumption, Retail and Production in the Age of Reflexive Modernity*, edited by Gert Spaargaren, Peter Oosterveer, and Anne Loeber. Routledge Studies in Sustainability Transitions 3. Routledge, New York, NY.
- Marsden, T., Sonnino, R., 2012. Human health and wellbeing and the sustainability of urban-regional food systems. *Curr. Opin. Environ. Sustain.* 4 (4), 427–430. doi:[10.1016/j.cosust.2012.09.004](https://doi.org/10.1016/j.cosust.2012.09.004).
- Michellini, L., Principato, L., Iasevoli, G., 2018. Understanding food sharing models to tackle sustainability challenges. *Ecol. Econ.* 145, 205–217. doi:[10.1016/j.ecolecon.2017.09.009](https://doi.org/10.1016/j.ecolecon.2017.09.009), March.
- Moore, J.W., 2015. Cheap food and bad climate: from surplus value to negative value in the capitalist world-ecology. *Crit. Histor. Stud.* 2 (1), 1–43. doi:[10.1086/681007](https://doi.org/10.1086/681007).
- Oncini, F., Bozzini, E., Forno, F., Magnani, N., 2020. Towards food platforms? An analysis of online food provisioning services in Italy. *Geoforum* 114, 172–180. doi:[10.1016/j.geoforum.2020.06.004](https://doi.org/10.1016/j.geoforum.2020.06.004), August.
- Paddock, J., 2017. Household consumption and environmental change: rethinking the policy problem through narratives of food practice. *J. Consum. Cult.* 17 (1), 122–139. doi:[10.1177/1469540515586869](https://doi.org/10.1177/1469540515586869).
- Perren, R., Grauerholz, L., 2015. Collaborative consumption. In: *International Encyclopedia of the Social & Behavioral Sciences*. Elsevier, pp. 139–144. doi:[10.1016/B978-0-08-097086-8.64143-0](https://doi.org/10.1016/B978-0-08-097086-8.64143-0).
- Pink, S., Mackley, K.L., 2012. Video and a sense of the invisible: approaching domestic energy consumption through the sensory home. *Sociol. Res. Online* 17 (1), 1–19. doi:[10.5153/sro.2583](https://doi.org/10.5153/sro.2583).
- Pitts, S.B.J., Ng, S.W., Blitstein, J.L., Gustafson, A., Niculescu, M., 2018. Online grocery shopping: promise and pitfalls for healthier food and beverage purchases. *Public Health Nutr.* 21 (18), 3360–3376. doi:[10.1017/S1368890018002409](https://doi.org/10.1017/S1368890018002409).
- Prothero, A., Dobscha, S., Freund, J., Kilbourne, W.E., Luchs, M.G., Ozanne, L.K., Thøgersen, J., 2011. Sustainable consumption: opportunities for consumer research and public policy. *J. Public Policy Mark.* 30 (1), 31–38.
- Sage, C., 2003. Social embeddedness and relations of regard. *J. Rural Stud.* 19 (1), 47–60. doi:[10.1016/S0743-0167\(02\)00044-X](https://doi.org/10.1016/S0743-0167(02)00044-X).
- Sassatelli, R., Davolio, F., 2010. 'Consumption, pleasure and politics: slow food and the politico-aesthetic problematization of food. *J. Consum. Cult.* 10 (2), 202–232. doi:[10.1177/1469540510364591](https://doi.org/10.1177/1469540510364591).
- Schnellbacher, C., Behr, J., Leonhäuser, I.-U., 2015. Potential of online food shopping. an opportunity to relieve mothers' everyday life food routines? *Ernahr. Umsch.* 62 (11), 178–187. doi:[10.4455/eu.2015.034](https://doi.org/10.4455/eu.2015.034), (November).
- Shove, E., 2010. Beyond the ABC: climate change policy and theories of social change. *Environ. Plan. A* 42 (6), 1273–1285. doi:[10.1068/a42282](https://doi.org/10.1068/a42282).
- , 2012. *Food practices in transition: changing food consumption, retail and production in the age of reflexive modernity*. In: Spaargaren, G., Oosterveer, P., Loeber, A. (Eds.), *Routledge Studies in Sustainability Transitions 3*. Routledge, New York, NY.
- Torkkeli, K., Mäkelä, J., Niva, M., 2020. Elements of practice in the analysis of auto-ethnographical cooking videos. *J. Consum. Cult.* 20 (4), 543–562. doi:[10.1177/1469540518764248](https://doi.org/10.1177/1469540518764248).
- Warde, A., 2005. Consumption and theories of practice. *J. Consum. Cult.* 5 (2), 131–153. doi:[10.1177/1469540505053090](https://doi.org/10.1177/1469540505053090).
- Warde, A., 2015. *The Practice of Eating*. Polity Press, Malden, MA.
- Zepeda, L. and J. Li. 2006. 'Who buys local food?' *10.22004/AG.ECON.7064*.
- Zoll, F., Specht, K., Opitz, I., Siebert, R., Piore, A., Zasada, I., 2018. Individual choice or collective action? Exploring consumer motives for participating in alternative food networks. *Int. J. Consum. Stud.* 42 (1), 101–110. doi:[10.1111/ijcs.12405](https://doi.org/10.1111/ijcs.12405).
- Forsell, Sini, and Leena Lankoski. 2015. 'The Sustainability Promise of Alternative Food Networks: An Examination through "Alternative" Characteristics'. *Agriculture and Human Values* 32 (1): 63–75. <https://doi.org/10.1007/s10460-014-9516-4>.