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Devising food consumption: complex households and the socio-material work of meal box schemes

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ABSTRACT

The aim of this paper is to explore how digitally-enabled food provisioning platforms reconfigure households' food consumption. Taking a market studies approach, and drawing on an ethnographic study of 15 households signing up to meal box schemes, the paper examines how meal box schemes, as market devices, work towards materially-semiotically organising household food consumption.

Analysis shows that the process of devising food consumption is demanding, dynamic and complex. While these market devices had to be worked into households, and thus demanded considerable work on the part of consumers, they also worked for consumers, performing an array of material-semiotic tasks for them, making their everyday food practices more convenient, adding food variation, and enabling them to pursue multiple food aspirations. During this process, market devices did not govern consumers nor did consumers domesticate market devices. Instead, market devices and consumers were locked in a complex and unstable process of mutual configuration.

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Introduction

Digital devices are increasingly becoming intertwined with everyday life. Websites, web shops, social media, QR codes, smartphones, smart watches, and other digital artefacts are now incorporated into our ordinary consumption, replacing other entities and reconfiguring our practices (Cochoy et al. 2017). In the area of food consumption, digitalisation has given way to a number of new modes of food provisioning. Meal box schemes, consumer-to-consumer food swapping networks, food sharing apps, and online food stores have all been made possible by digital platforms – i.e. digital infrastructures that allow connections and interactions between food providers and food consumers.

These new digitally-enabled modes of food provisioning are often presented by their advocates as sustainable alternatives to mainstream food retailing and argued to increase sales of ecological products, reduce food waste, or promote healthy vegetarian lifestyles. Such claims assume that these digital food platforms can reconfigure what are often assemblages of interconnected household food practices, held in place by socio-technical systems, norms and habits (Evans 2012; Plessz et al. 2016). This paper sets out to explore this assumption and to investigate how, and under what conditions, these new digital food platforms shape the existing complex of household practices.

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While few studies exist of these new digitally-enabled modes of food provisioning, existing studies suggest that their incorporation into everyday food consumption would be challenging, and would bring uncertain consequences. Previous work on household food consumption has acknowledged the complexity of the household's practice nexus and discussed the difficulties involved in reconfiguring everyday food practices. Plessz et al. (2016), for example, study how food practices change in relation to the food prescriptions issued by authorities to improve consumer wellbeing and health, and to protect the environment. Based on a study of French households, and combining theories of practice with a life-course perspective, the study shows, among other things, that it is difficult to change consumer practices and that biographical turning points – e.g. family events – offer opportunities to break with routines and established practices. Similarly, Dyen et al. (2018) discuss how daily (food) practices are organised and how the routines that develop can be changed, and due to which factors. Based on a qualitative study of households' everyday practices, and making use of practice theory, this study shows that practices are systematized to different degrees and that this systematization in turn has to do with issues of time, commitment, social relations and materiality. This makes everyday routines very stable; to understand how to change these, e.g. to promote sustainable eating, one must understand the dynamics of food routines. Taking a design approach, and focusing more on the materialities involved in changing household food practices, Devaney and Davies (2017) design and implement experimental sites – the HomeLabs – to intervene in households' food practices with the aim of promoting sustainable eating. This study shows that, in addition to materiality, social context, social relations and micropolitics are also crucial issues to consider when changing food practices. Finally, Hertz and Halkier (2017), in a qualitative study of meal box schemes which also utilises practice theory, show that the appropriation of meal boxes by households requires considerable work and adaptation, in order to become part of these households' everyday practices.

Taken together, these studies show that households are immensely complex sites; they are meaning-laden and political places, where multiple social relations play out and are reproduced and renegotiated (Gibson et al. 2013). In households, multiple food practices are interlinked, involving the acquisition, appropriation, and appreciation of food, as well as its disposal (Evans 2018). These food practices are shaped by social context (family relations, conventions, social identities), materiality (domestic technologies and infrastructures), and the temporal patterns of everyday life (Dyen et al. 2018; Evans 2012). The multiple practices that make up households can thus be seen as nexuses of interlinked practices involving, but not delimited to, food practices.

Against this backdrop, the aim of this paper is to explore if, how, and under what conditions digitally-enabled food provisioning platforms are able to reconfigure households' food consumption. The objective is to discuss how these new digital food platforms, and the new mode of food provisioning that they promote, shape and are shaped by households' multiple food practices, and what this possible reconfiguration means both for households and for the issue of sustainable food consumption.

In pursuing these objectives, we take a somewhat different theoretical approach. We draw on and combine the concept of the market device, borrowed from the new economic sociology of markets (Callon 1998; Callon, Millo, and Muniesa 2007) – and the notion of households as practice junctions – rooted in the sociology of consumption (Evans 2019; Röpke 2009), in order to outline a theoretical framework capable of exploring how these devices reconfigure households' food practices as well as the implications that this may have for power relations, the distribution of agencies, and sustainability. Making use of these resources, we propose that digital food platforms, e.g. meal box schemes, can be conceptualised as market devices (Callon, Millo, and Muniesa 2007, 2) designed to devise a new mode of convenient and sustainable food provisioning. How well they accomplish this, and what this means for households, is dependent, however, on how they interconnect with households' food practices, routines, temporalities, and materialities. A focus on what we refer to as the devising of consumption (McFall 2015) will thus allow us to attend to the role of market devices in the shaping of consumption, but without neglecting the active role that consumers and their actions can play. This

will also allow us to develop an approach to consumer agency and digitalisation which takes the active role of materiality seriously and in which the role of digital technology – whether adverse or beneficial to consumers - is something explored empirically rather than assumed from the outset (Fuentes and Sörum 2019). As we explain in greater detail below, this approach is also in line with calls from consumption scholars for more engagement with marketing and its material devices in order to understand the shaping of consumption (Cochoy 2007b; Evans 2019), while simultaneously addressing the paucity of consumption-focused studies within market studies (Hagberg 2016).

Empirically, the focus is on meal box schemes. Our analysis draws on an ethnographically inspired study of 15 Swedish households that are either currently signed up to, or have been signed up to, meal box schemes. Meal boxes consist of food items, premeasured and at times pre-sliced, and accompanied by a set of recipes, which are delivered to the home. This service is organised and enabled digitally – typically involving both a webpage and a smartphone application –allowing consumers both to place orders and to change these orders on a weekly basis. More specifically, the study combines ethnographic interviewing, on-site kitchen observations, digital walkthroughs, and close readings of digital devices to produce rich data regarding how different meal box services become part of household food practices, how they reconfigure these practices, and what the consequences are for consumers and sustainability.

The structure of the paper is as follows: First, we outline our theoretical approach, focusing on the devising of consumption and the complexity of the household practice nexus. Second, we present the methodological details of the study, stressing the combination of interviews, observations, and digital walkthroughs used to capture some of the complexity of food consumption and its devising. Third, we present our analysis. Our focus is on the work required for these meal boxes to be incorporated into household practices, what the boxes in turn accomplish for households, and the difficulties involved in trying to establish a new sustainable mode of provisioning in a state of continuous food practice reconfiguration. We then outline some conclusions and discuss the implications of our analysis.

Devising consumption: devices, practices and households

As explained in the introduction, the paper both draws on and combines insights gained from market studies and theories of practice to develop a theoretical account of the *devising* of food consumption which can account for how digital food devices shape and are shaped by household food practices.

The field of market studies takes an interest in the pragmatic and material making of markets (Kjellberg and Helgesson 2006). Scholars within this field do not take markets as a given, instead setting out to trace, through detailed empirical studies, how markets are performed in and through practices. Studies within this field have, for example, discussed the performativity of economic theories (Callon 2007; Cochoy, Giraudeau, and McFall 2010), examined the configuration of market actors (Andersson, Aspenberg, and Kjellberg 2008; Hagberg and Kjellberg 2010), and explored the valuation and qualification of goods (Dubuisson-Quellier 2010). However, while there have been relatively few explorations of consumption within the field of market studies, a lively dynamic subfield is emerging which takes an interest in how market devices shape consumption. This research has, for example, discussed how market devices such as shopping carts and packaging shape consumption and consumers and their calculative capacities (Cochoy 2004, 2007a, 2008), how smartphones enable consumers to practice ethical consumption (Fuentes and Sörum 2019), and how the production of political consumers in food retailing is accomplished through, among other things, the equipping of consumers (Stigzelius 2018).

The sociology of consumption, on the other hand, has the opposite problem. Theories of practice are well established in the sociology of consumption and have redefined how consumption is approached, shifting the focus away from the conspicuous, spectacular, and purely cultural towards the inconspicuous, mundane, practical, and material aspects of consumption (Shove, Pantzar, and

Watson 2012; Warde 2005, 2014). Much work in this field has targeted household practices and infrastructures, taking an interest in the mundane practices of shopping, making food, washing, showering and cleaning, and exploring issues related to energy consumption, food consumption, and the generation of household waste (Evans 2018; Plessz et al. 2016; Shove 2003; Southerton 2003; Spurling Forthcoming). Resources rather than commodities have been the focus during later years. As part of this shift in emphasis, the field has not only moved away from studying more "conspicuous" forms of commodities and consumption, it has also left behind analysis of how "commercial actors" shape consumption (Evans, Welch, and Swaffield 2017). While calls for a renewed interest in marketing and advertising, in order to understand the shaping of consumption, are now being made from within the field (Evans 2019), marketing practices and devices remain relatively underexplored within the sociology of consumption.

Taking this into account, our focus on the *devising of consumption* is, thus, a strategy for bridging these two fields. By turning our attention to how consumption is materially-semiotically enabled, and how particular market devices make this possible (McFall 2015), we hope to be able to provide a nuanced understanding of how market devices – in this case meal box schemes – can shape household practices and food consumption.

Central to this endeavour is the concept of the market device. The type of digital food platform studied here – the meal box scheme – is framed as an example of a market device which is designed, maintained, and put to work with the aim of establishing a new mode of exchange. A market device is often defined as a "material and discursive assemblage" involved in the making of markets (Callon, Millo, and Muniesa 2007, 2). As McFall notes, this is a very open definition, inviting "multiple, diverse, generative and overlapping" uses of the concept (McFall 2015, 14). This openness is reflected in the diverse set of studies that both draw on and use the concept of the market device. While many of these studies were originally confined to financial markets, there has recently been a turn towards "mundane markets" within the field of market studies, and an increased interest in consumers and their role in the making of markets (Harrison and Kjellberg 2016; Kjellberg 2008). Studies conducted in this emerging body of work, for example, have explored how market devices work in order to enrol consumers in the consumption of vintage goods (Brembeck and Sörum 2017), the role that doorstep agents played in the making of the insurance market for the poor (McFall 2015), how packaging works in order to configure consumers and enable the emergence of alternative food markets (Fuentes and Fuentes 2017), and the devising of electricity consumers (Grandclement and Nadai 2018). In developing the framework outlined here, we both draw on and hope to contribute to this body of work by examining more closely how digital food platforms enable and shape food consumption. Accordingly, the emphasis here is on how market devices configure consumers and household food consumption.

How, then, do market devices devise consumption? Drawing on Cochoy et al. (2017), we can argue that digital market devices do three things in order to devise consumption (see also, Petersson-McIntyre 2020): First, digital market devices enable and change consumers' actions. These market devices change what is being carried out, intervening in existing practices, and often reconfiguring them, but also making possible new practices or modes of practices. Digital devices thus encourage certain actions while discouraging others. Digital *market* devices are scripted to make possible consumer actions leading to the establishment of a market. This can involve the organisation of exchange practices but also the encouraging, supporting, and enabling of the practices in which products and services are used, and through which they acquire value. For example, Fuentes and Sörum (2019) show that ethical consumption apps are designed to enable a specific set of ethical consumer actions (consumers informing themselves, scanning barcodes and pledging green), actions that would enable users to act as ethical consumers.

Second, and related to the first, digital market devices also devise consumption by adding to the capacities of the actors to carry out these actions. Consumer agency, i.e. the consumer's capacity to act, develops in socio-technical assemblages (Strengers, Nicholls, and Maller 2016). This means that the addition of devices to consumer-assemblages will inevitably alter consumers' capacity to act.

Again, digital *market* devices do this in ways enabling consumers to become competent market actors. In her study of lifestyle bloggers, Petersson-McIntyre (2020) argues that the agency of the lifestyle blogger – a specific type of consumer and market actor – emerges in a human and non-human assemblage consisting of the blogger, his/her followers, and sponsors, in addition to the multiple digital devices involved. The digital platform used allows the blogger-actor to take shape and he/she is able to perform a new type of economic consumer-producer practice that would otherwise not have been possible. The blogger, as a market actor, drawing on ideals and notions of beauty, femininity and domesticity, can now promote brands, frame products and contribute to the establishment of markets. However, it is important to note that, while market devices can change the agency of consumers, this does not necessarily mean that they enhance consumers' capacity to act. As noted in previous studies, agencing processes commonly lead to the redistribution of agency; during these processes, market devices can both enable and disable consumers (Fuentes and Sörum 2019; Hagberg 2016).

Third, digital market devices also devise consumption by transforming the meanings and subjectivities connected to specific practices or sets of practices. These digital devices become entangled with specific life goals and pursuits. They both become part of and change the way consumers view themselves, and how they evaluate their consumption acts. For example, Lupton (2018) shows how using food tracking apps (apps that track calories and give related information) change the way consumers perceive themselves. These apps are linked to the user's health objectives but also end up changing these, as well as the way in which users perceive both themselves and their bodies. A new subject, a new self, emerges as the result of the forging of this new consumer-assemblage.

In sum, (digital) market devices work towards cultivating specific ways of consuming by enabling certain actions, adding to consumers' capacity to act and connecting with and refining their dispositions (Cochoy and Mallard 2018).

Also important to subsequent analysis is the understanding that the relationship between market devices and consumers is mutually constitutive. While market devices configure consumers, consumers in turn can configure markets, altering them materially and semiotically (Harrison and Kjellberg 2016). This can be accomplished in a number of ways. Consumers can, for example, configure the *modes of exchange*, in our case possibly involving the customisation of the meal box service, the changing of boxes, to include or exclude certain items, and the adapting of delivery schedules etc. Consumers can also *re-qualify the goods* exchanged, in our case possibly involving the ascribing of different meanings to meal boxes than those prescribed by the companies delivering them. Consumers can also *configure the actors* providing the goods. Through direct customer feedback to the company, or to other consumers – via social media for example – they can shape the company actor. In these and other ways, consumers are able to "act back", configuring and reconfiguring market devices and markets. It is therefore important to consider the mutually constitutive relationship between market devices and consumers. Market devices configure, but do not determine, consumption.

In our case, it is of particular importance to take into account how this device-consumer configuration plays out in the household practice nexus. As studies of household consumption have taught us, efforts to promote environmentally-friendly household practices commonly fail or fall short of expectations (Breadsell et al. 2019). This, at least in part, has to do with the complexity of households (Gibson et al. 2013). One way to try and make sense of this complexity, mapping it and understanding it rather than denying it, is approaching the household as a nexus of interlinked practices routinely performed by members of the household and involving the acquisition, use, and disposal of products and services (Breadsell et al. 2019).

From this vantage point, consumption is the result, the indirect outcome, of these multiple practices. Consumption is not a practice in itself but a moment in almost every practice (Warde 2005). As consumers go about their everyday lives, carrying out numerous interconnected practices, they draw on and "consume" food, energy and other resources during the process (Röpke 2009). Consumption involves the acquisition, appropriation, and appreciation of goods, but also the devaluation, divestment and disposal of these goods (Evans 2019).

This also indicates that, in order to understand consumption, one must often go beyond the study of single practices. Practices do not exist in isolation; they are interlinked in bundles, networks or assemblages (Nicolini 2017). Therefore, in trying to understand household consumption, the linkage between practices is often as important as the linkage between the elements of a practice. Household practices can be more or less interlocked and can involve varying degrees of coordination between household members (Spurling Forthcoming). Eating breakfast, for example, has to be preceded by shopping for groceries and then preparing that breakfast. This practice is also shaped by the kitchen –making some types of cooking and eating more possible than others – the cooking skills of the household members –making certain dishes possible but not others – and ideas about what constitutes a "proper" breakfast. Furthermore, eating breakfast is also commonly shaped by work and child care routines, involving the coordination of multiple household members. As this illustrates, these practices involve and are shaped by both social and material contexts. Household practices are enabled and held in place by technologies and temporal patterns, as well as by meanings, conventions and family relationships (Breadsell et al. 2019; Southerton 2003).

The complexity of households' practice nexus suggests that market devices that engage households in devising consumption will encounter a number of challenges. A digital food platform – like the meal box providers analysed in this paper – that is set on promoting a new form of food acquisition, will have to reconfigure multiple household practices, each of these involving as well as being "composed of material objects and environments, and socio-cultural meanings as well as the skills and competences to do something" (Keller, Halkier, and Wilska 2016, 76).

In what follows, we draw on these concepts and insights to explore and explain how digital food platforms (in this case meal box schemes) - as market devices - disrupt and reconfigure households' food practices, as well as which difficulties and conflicts arise during the process and which implications this reconfiguration will have for both consumers and sustainability.

Understanding food devising at home: the fieldwork

To understand how meal box schemes are integrated into the multiple practices involved in households' food provisioning and consumption, we conducted ethnographically inspired fieldwork (Elliott and Jankel-Eliott 2003; Hammersley and Atkinson 2007; Marcus 1998), combining interviews with observations.

Our fieldwork was conducted over a period of four months in 2019 – between the 18th of June and the 20th of September. Fifteen Swedish households, located in cities or suburbs in the southern part of Sweden, which were either currently using or had recently used (within a year) a meal box service, were recruited for the study.

The recruitment of households was done by utilising both the authors' personal networks and referrals from participants. We sought and obtained households that varied as regards family composition, educational levels, meal box schemes used, and diet and food preferences. While our sample is by no means representative, it does contain some variation regarding household characteristics (see Table 1).

When examining the practices of these households, we were interested in how they acquired, stored, prepared, ate, and disposed of their food and food products, as well as in how all these activities and practices shape and were shaped by the introduction of meal box schemes. More specifically, in order to trace these multiple household practices, and how they interact with meal boxes, the study combines ethnographic interviewing, kitchen observations, digital walkthroughs, and digital observations of websites and apps.

The ethnographic interviews conducted were, like most ethnographic interviews, qualitative, contextual, and focused on understanding a set of practices and their meanings (Spradley 1979). They were informal in nature and semi-structured, being guided by a few "grand tour" questions complemented by a number of follow-up questions and designed to cover a specific set of themes, while also allowing the interviewer to explore any new issues emerging. In conducting these interviews, we were

Table 1. Research participants.

Participants (Pseudonyms)	Type of household	Number of household members	Occupation	Dietary preferences	Retailer, service provider former/current
Anders	Family	3 (1 child 16 years old)	Researcher and teacher, University	Try out vegetarian & LCHF	Linas Matkasse (Flexitarian box) & City Gross (Family box)/Linas Matkasse (Flexitarian box)
Nicole & Emil	Family	4 (2 children 11 and 8 years old)	Shop manager/ Football coach	Everyday meals	Mathem (Family box)
Linda & Markus	Couple	2 (no children)	Teacher, high school	Keeping to Weight watchers diet	City Gross (Weight watchers box)
Susanna	Couple	2 (no children)	Researcher and teacher, University	Vegetarian, Vegan and anti-Inflammatory foods	Årstiderna (Vegan food box) /Årstiderna (Fruit box)
Anna & Niklas	Family	5 (3 children 18, 16 and 10 yeras old)	Administrator, education/ Sustainability manager	Everyday meals, lactose intolerance	Linas Matkasse (Everyday classic box) & MatHem (Family box)/Linas Matkasse (Everyday classic box)
Sofie	Family	4 (2 children 9 and 7 yeras old)	Administrator, healthcare	Try out vegetarian	City Gross (Inspirational flexitarian box)/ ICA (Inspirational box)
Hanna	Family	4 (2 children 5 and 3 years old)	Payroll consultant	Everyday meals	City Gross (Family box)/ ICA (Family Box)
Lisa	Family	4 (2 children 6 and 4 years old)	CEO Start up incubator	Try out vegetarian	City Gross (Family box)/ Linas Matkasse (Flexitarian box)/ Linas Matkasse (Everyday classic box)
Johanna	Family	4 (2 children 4 and 2 years old)	VP Employee Sucess	Try out vegetarian	MatHem (Family box)/Linas Matkasse (Flexitarian box)/ ICA (Vegetarian box)
Lotta	Family	4 (2 children 8 and 4 years old)	Education manager, folk high school	Everyday meals and try out Weight watchers diet	ICA (Healthy box)/ City Gross (Weight watchers box)
Cajsa	Family	5 (3 children 11, 9 and 6 years old)	Employment officer	Try out vegetarian	ICA (Family box)
Anne	Couple	2 (no children)	Retired	Everyday meals	City Gross (Everyday classic box) & ICA (Family box)/ City Gross (Everyday classic box)
Tommy & Louise	Couple	2 (no children)	Employment officer/ Unit manager healthcare	Try out vegetarian	Coop (Healthy box)/ City Gross (Weight watchers box)
Josefine	Family	3 (1 child 17 years old)	Administrator, personnel	Everyday meals	Linas Matkasse (Everyday classic box)
Isabelle	Family	4 (2 children 8 and 2 years old)	Customer service manager	Everyday meals	Linas Matkasse (Family Box) & ICA (Family box) & City Gross (Family box)

interested in both accounts of practices – i.e. how the participants purchased, stored, prepared, ate and disposed of their food – and in how these food-related practices were framed – the meanings ascribed to them by practitioners during the interviews. Following the more pragmatic tradition used within ethnographic studies, the interviews are treated here as a legitimate source of information, both as regards the phenomenon under study and how it is discursively constructed by the participants (Hammersley and Atkinson 2007). While interviews cannot fully capture the physical and embodied dimension of practice performances (Nicolini 2012), practitioners are certainly able to talk about their practices, often in a surprisingly detailed and grounded way (Hitchings

2012; Martens 2012). The research participants interviewed are ethnographers in their own right, presenting and enacting their world(s) vis-à-vis the interested researcher/outsider (Mol 2002). Interview accounts are examples of enactments, they are social action (Halkier and Jensen 2011; Holstein and Gubrium 1995).

The interviews were conducted in the participants' homes, either in or in close proximity to their kitchens, lasting typically between 60 and 90 min and being audio recorded and transcribed in full. Typically, the interviews were conducted with those mainly responsible for ordering and managing the meal boxes; however, it was not uncommon for other household members to join in. The interviews were organised so as to cover the actions connected to the meal boxes – everything from interactions with websites, and the app used to order the meal boxes, to how the meal boxes were unpacked, prepared, eaten and disposed of – and how these connected with household food practices in general. An important part of the interview was devoted to trying to understand how these households organised their shopping, storing, preparation, eating and disposal of their food in the context of their everyday lives. The interviews generated rich data on these households' experiences of meal boxes, as well as their food aspirations and the general organisation of their food practices.

While ethnographic interviewing is the key method used in this study, it can be appropriate to combine interviews with observations when trying to understand mundane household practices (Evans 2012; Hammersley and Atkinson 2007). In this study, the interviews were complemented with both on-site observations – kitchen observations – and what we refer to as "digital walkthroughs" (Fuentes and Sörum 2019). These complementary data collecting methods were key to generating data on the material (re)organisation of food provisioning and consumption, while also allowing us to ask more specific questions in order to produce detailed accounts of activities that could otherwise have been overlooked in the interview narrative.

The kitchen observations were usually prompted by an account of the storing or preparing of food. The interviewer would thus ask for a demonstration and a "tour" of the kitchen. The participants often showed us their cupboards, fridges and freezers, as well as their specific kitchen appliances (see also, Evans 2012). Kitchen demonstrations were not intended to be systematic inventories (Hebrok and Heidenstrøm 2019), but to provide a way to get at the activities and material elements of practice. These kitchen observations were documented by making audio recordings of the interviews and by taking photographs. In total, more than 180 photographs were taken during the course of the kitchen observations.

The participants were also asked to demonstrate how they used the digital interface while performing digital walkthroughs, whereby they were asked to guide us through how they use apps or websites to order or manage their meal box prescriptions. Follow-up questions addressed the different functions that were used, and not used, and included examples of both successful and failed digital interactions. Doing things together with the participants can be one method of constructing information regarding the less verbalised forms of understanding and knowledge that are involved in practices (Crang and Cook 2007). More specifically, this method generated detailed accounts of micro-actions that would otherwise have been difficult to verbalise during the interviews. How consumers log into websites/apps, how websites/apps are browsed and used, and the specific difficulties that rise when navigating and using these websites/apps are all difficult to obtain during purely discursive interviews. The digital walkthroughs were documented on video, enabling us not only to listen to the accounts, but also to see the actions being performed.

Finally, digital observations were conducted of the meal box websites and apps mentioned in the interviews. Using screenshots, we documented these digital interfaces in order to understand how they were organised, what kinds of actions they enabled and encouraged, and how these actions were framed as meaningful by these market devices. This resulted in more than 100 screenshots of a total of six meal box providers (see table for details).

The material was analysed using the constant comparative method (Charmaz 2006). Both authors participated in the analysis, the material was coded using Nvivo software, and regularly discussed during analytical meetings. Guiding our analysis were the following questions: a) How and under

what conditions are these meal box schemes integrated into households' food practices?; and b) How are these practices changed by the incorporation of the meal boxes? By combining the interview transcripts, the photographs of the observations, the videos of the digital walkthroughs, and the screenshots of the digital observations, a number of analytical categories were developed and explored. Below, we present the results of this analysis as a single coherent narrative, illustrating the categories using interview extracts and ethnographic accounts of practices.

Meal boxes and the devising of food consumption

The meal box schemes seek to change the way consumers acquire, appropriate, appreciate, and dispose of their food, laying the foundations for a new form of food provision. In accomplishing this, these digital food platforms engage in the configuring of consumers and the devising of consumption.

This devising is accomplished using a market device – the meal box scheme. This type of market device is not a single entity but a heterogeneous network of artefacts and people. To clarify, the meal box schemes as market devices are not delimited to the digital interface – website and apps – although these are central to these market devices and the work they perform. Also included in this discursive and material assemblage are the boxes and bags in which the food is delivered, the paper recipes that accompany the food, the food itself, its packaging, the delivery system – trucks and staff – the warehouses, and the food preparation areas. The organisation underpinning this food service, as well as the multiple discourses which this market device draws on, reproduces, and refines in order to frame itself, qualifies its products and establishes a new mode of exchange. This type of market device is thus more than digital and its reach extends beyond the digital realm.

Below, we examine more closely how these market devices intervene in household practices, what kinds of material-semiotic work they perform for these households, and how they fit into, enable and reconfigure consumers' food aspirations and subjectivities.

The working of meal box devices into households' practice nexus

How do meal box devices become part of the practice nexus of households? In line with previous research on meal boxes (Hertz and Halkier 2017), the study shows that, while meal box devices manage to become part of household practices and perform in line with their script, considerable work is required on the part of the consumer. Or, put differently, the integration of meal box devices into household practices requires significant adjustments, both to the device and to the consumer, with much of this adjustment work being performed by the consumers. Thus, these devices, marketed as simplifiers of everyday life, also required time, effort, materiality, as well as skill, if they are to become part of households' everyday food practices.

To begin with, consumers have to learn to use the meal box scheme's digital interfaces in order to place an order, change meals or ingredients, pause the service, or communicate with the meal box companies in cases where there are incorrect deliveries. Through repeated interactions between the digital device and the consumer, a new mode of acquiring food and a new type of consumer are cultivated; the meal box consumer who, rather than planning what to make for dinner and then going to the store to buy the necessary ingredients, digitally orders the meal box instead and relies on the meal box company to plan meals for him/her and to deliver the food necessary to make dinner. Device-human interaction is therefore crucial to the successful introduction of meal box devices. For the most part, this interaction seems to develop smoothly. Drawing on previous experience of digital devices, consumers learn to use the digital interfaces of their meal box services to order their meal boxes, choose between the offers available, and adapt these when necessary (and possible) so that they fit in with their particular household and its nexus of practices.

The digital walkthroughs showed that consumers had developed specific styles of making and changing their orders. The digital interfaces allow different approaches to ordering or browsing

the meal box website/app – e.g. using their order history, their favourites or the search function. Consumers cultivate one particular way of ordering, often also connected to a specific digital device – smartphone, tablet or computer. They were often at a loss when asked to explain other functions or ways of ordering.

There were also examples of times when this digital device-consumer interaction was unsuccessful due to technical glitches or a lack of consumer competence. Examples of this include failed attempts to pause the service, difficulties logging into the website or, more seriously, breakdowns in the signing-up process:

> Anders: I was going to order a very, very simple and cheap meal box to test the one from *City Gross* here in Lund … / so the entire order didn't go through so, well, I forgot the last stage yeah and it felt really stupid when I discovered that because well you know, you see I order a lot on the Internet anyway and well it's normal e-commerce, clothes and then it's shows and tech, and food but apparently then, but here I clearly couldn't work it out.

The design of the *City Gross* meal box service website not only required the consumer to create an account, and then to log in and place an order, it also made confirmation of the order a necessity. When Anders overlooked this final step, the order, which he spent considerable time making, did not go through. For Anders, this meant that he and his family never switched to the City Gross meal box scheme; however, they did continue using (other) meal box services.

Another example is the informant, Josefine, who was a customer of *Linas matkasse*, trying to show us how to log in and change an order but being unable to log into her account, despite repeated efforts. Finally, after changing web browser, she was able to log in and show us her account, and how she typically used it, taking us through her orders and explaining how she keeps track for the meals delivered to her.

Failures like these can be serious, making the integration of the meal box scheme into household practices difficult. However, more often than not, the digital failures reported are mere glitches, making the device-consumer interactions less satisfying but still not leading to a complete breakdown of the agencing process (Fuentes 2020).

Once the order has successfully been placed, the next step for consumers is to receive and unpack the meal box. Being at home in order to be able to receive the meal box was often problematic in itself, requiring consumers to make adjustments to their schedules in order to make things work.

> Nicole: Well at times they've come a bit earlier and then they ring and ask if I'm still at work but at times I have, I tell them to leave it on the stairs and then I'll come … / but I actually try to fend them off in such a way that if I'm working to four, I try to take between four and well between 4 and 9 pm so I know I'll be home and then it can be the case that I drive Fredrik to the gym and they turn up then but then I also know that I'll be away for 3 min so it's well, I don't challenge things that way.

In this example, we see how important synchronisation is. The more compound a household's practice nexus is, the more important it will be to coordinate the delivery of the meal boxes. Here, we also see that consumers sometimes have to make considerable adjustments and forgo some of their flexibility in order to adapt to the meal box services. In some cases, the conflict between a household's practices and routines and the meal box delivery schedule becomes too great, and then consumers talk in terms of:

> Johanna: We fetch it from *ICA* so then you go there yourself after work kinda thing. But the other meal box we had, it always turned up so late in the evenings and well, then our dog barked so much the kids woke up and well it didn't work out … / our delivery was the last one on the route so it took the longest time to reach us.

We see here how the fluidity of everyday life (Evans 2012) gets in the way of meal box deliveries as barking dogs, children and the geographical location of the home all work towards making synchronisation impossible.

In line with their material-semiotic script, these digital market devices also intervene in the cooking, eating and disposal of food. Meal boxes come with prescriptions regarding what to eat and how to make it. This is, in fact, one of the key services that this market device provides. The recipes are available online but most of the meal box schemes also send printed versions along with the food. These scripts tell consumers how to prepare the food and also, in some cases, how to eat it. The meal box devices thus reconfigure households' and eating practices, establishing new modes of cooking and eating, which are configured, at least in part, by these market devices. Many of the meals proposed also required a certain degree, or type, of cooking competence. While most recipes indicate how much is needed to prepare them, consumers can also at times feel that these estimations are unrealistic:

> Anna: No! And before it was even worse, when there are more ingredients and you have to go through more stages then it's really different to what it says, and yes it always takes us longer to do what it says, but then you can in any case get an idea about, well for some dishes it says 25 min and they're very easily made, you see maybe they take half an hour in that case but if it says 30–40 min, then it'll take us over 40. So, I don't know how they count things there, well maybe they count on it being a cook who's slicing the onions, ha ha, or maybe that you've set out all the ingredients nicely.

In this case, the amount of time it took to prepare meals was a reason to switch meal box provider, choosing one that provided easy-to-cook meals better suited to the household routines. One could say that what is being observed here is a mismatch between cooking styles (Halkier 2009), while this household sees cooking as something done to feed the family, and to cope with everyday life, underpinning the meal box service is an understanding of cooking as a craft, something that you are supposed to spend time on and be skilful at.

Furthermore, households are also intersections of multiple technologies. Previous work has shown how new ways of consuming have to be adapted to, and are shaped by, the socio-technical arrangements of kitchens, heating, supermarkets, and transport etc (Hertz and Halkier 2017). In this case, it was clear that meal box devices sometimes required the reorganisation of the socio-technical arrangement of the household. For example, regarding the addition of new kitchen devices:

> Anders: Yes well just as an example, here last autumn then, of how these change your food, it's actually in *Linas Matkasse,* it's very often the case that you need an immersion blender … /We kinda have a food processor and a blender if we need them, yes but now it's got to be an immersion blender … / Yes well, then I had to go out and buy one, and it wasn't entirely straightforward to find just an immersion blender because most of the time they're sold together with thousands of different accessories that turn out to be very expensive and very big and we live in a very compact house … /Well yes, then we had to buy an immersion blender and now we've all started blending!

In this case, we can note how the meal box encourages the purchasing of a new kitchen appliance for a household that already considers itself to be well-equipped. This raises some concerns since the storage space available in this home is limited and the appliance itself is expensive. However, once purchased, it also becomes part of the cooking practices of the home, reconfiguring what counts as suitable cooking practice for this household. New materialities change which household food practices are performed, and how (Dobernig and Schanes 2019; Evans 2012). During our visits to these households', consumers guided us through their kitchens, showing how they had reorganised their kitchens to accommodate new ingredients, new appliances, meal box instructions, and the disposal of packages. For example, in one household, the participants showed us how they re-purposed meal boxes to store clothes, toys and other items in order to reduce the amount of packaging waste, while also improving this household's storage capabilities. However, while some material reconfiguration of kitchens was necessary in order for the meal box scheme to "work", it is also worth mentioning that almost all the households studied had large and fully-equipped kitchens, facilitating the integration of meal box services. Integrating meal boxes thus involved both matching and adapting materialities.

Finally, successfully integrating meal box schemes into household practices often required the persuasion of reluctant household members – children or partners - before these new devices could be integrated. Typically, the household member responsible for ordering the meal box device had to persuade other household members of its benefits:

Tommy: Yes and actually that you eat other stuff that you'd never have eaten otherwise.
Louise: Yes you've always been more sceptical towards stuff like that, but I really love everything that's so new, I think it's quite fun to have new stuff … /
Tommy: Yes it was a bit of that vegetarian thing, we tried the regular box but the vegetarian one was more fun, with all that spicing stuff, they spiced it more, or yes both the vegetarian and the weight watchers spice things a lot more.
Emma: Yes well, have you then started making and eating stuff that you didn't do before?
Tommy: Oh yeah.

As this illustrates, these negotiations were not always successful, nor were they necessarily stable. In the example above, an effort to change household food practices, using a meal box, was resisted to the point where the service had to be suspended. Here, family relations and dynamics matter, as do tastes, making the introduction of meal box schemes difficult, unstable or impossible.

As we can see, the introduction of meal box devices into households is not an effortless process. It requires considerable work on the part of consumers and involves managing and configuring social relations, materialities and temporalities. Two aspects seem to be key to the integration of meal boxes: Meal boxes become successfully integrated into households when there is congruence between the household – both in terms of practical and material conditions and prevailing food aspirations and subjectivities – and the material-semiotic organisation of the meal box. Second, meal box schemes also became successfully integrated in cases where there was no close fit, but where either the household or the meal box device was adaptable.

The work performed by meal box devices

Once meal box devices have been incorporated into the household, and have become coordinated with that household's food practices, they perform a number of material-semiotic tasks for that household, adding to consumer capabilities. This "work" is what makes them valuable, what legitimizes their use.

As previous studies have also shown, meal box schemes are often seen as a way of outsourcing the planning of meals (Hertz and Halkier 2017). Preconfigured dinner schedules take the pressure off having to devise what to eat on a daily or weekly basis.

Anna: As we've only just opened, then, an account and it's delivered to us every other week, and ready-made recipes, and we don't need to decide anything ourselves, it just gets delivered to us, and you don't need to think at all. So that's really why, as mentioned, really why we have meal boxes because you don't have to think and decide. So, for our part, when we go shopping in the store, for dinner in the store, we first have to decide what to buy or work it out in the store and then it's this business of easily falling into the trap of doing the same things you always do, and we're quite bad at kinda, we're not the type of people who plan shopping lists and all that.

The meal box service also saves consumers time and effort. It simplifies cooking, providing the household with easy-to-cook meals. Time and effort are also saved by not having to go to the store to buy food. Having food delivered to their homes means that consumers can reduce the number of shopping trips made and/or the amount of food bought (Hertz and Halkier 2017). As we see, in this example, shopping for food is considered an arduous task that takes time and effort, and is to be avoided if possible. The "fun" or "pleasure" of shopping, reported on in so many other studies, is nowhere to be found. However, we can also see an emphasis on easy-to-cook meals. Even though what is being sought is a homemade meal, meal boxes save consumers time and effort.

Relatedly, the meal box devices provided consumers with cooking knowledge and know-how, allowing them to develop their competence. This also brings us, perhaps, to the most central task

that meal box devices perform for consumers: i.e. the introduction of new food (see also, Hertz and Halkier 2017). The participants talked about being stuck in routines, buying, cooking and eating the same food. Their culinary repertoires, they felt, were relatively fixed. For these households, the meal box was a way of breaking out of those routines and bringing novelty into their food consumption.

Niklas: Yes and it's fun to get some inspiration and then, well, some things we wouldn't have thought of ourselves, for example making a simple sauce of soured cream and ajvar so yes it …
Anna: Yes sure, it's actually something that we used later on.
Niklas: Yes well it's stuff like that which, it's fun when you make food, doing something different, as it's so easy to get stuck in your routines and then there's not so much that sticks, I thought I'd remember more.

These market devices provide consumers with valued tasks. They assist consumers in the juggling of everyday life, simplifying planning, cooking and eating food, saving households time and effort while also taking away some of the pressures connected with constantly having to make food choices. In addition, they also offer households much sought after culinary novelty, allowing consumers to introduce new dishes and foodstuffs into their everyday lives, to learn to eat new things, and to experiment in their everyday food practices. This can be viewed as a form of socio-material delegation. Key food tasks are delegated here to the market device; i.e. a form of work transfer takes place in which labour previously carried out by household members shifts to the device (for a similar argument in the context of self-service, see du Gay 2004). Also, in this case, just how well the form of delegation works has to do with the meal box-household fit, and its adaptability.

Enabling food aspirations and subjectivities

Over and above providing practical and material services to households, meal box devices, in order to be taken up, need to support the goals and social values guiding household practices (Hargreaves, Wilson, and Hauxwell-Baldwin 2018). Meal box devices need to connect with, enable, and develop consumers' food aspirations and subjectivities.

Our study shows that they do so in different ways. For some, the meal box service is a way of practicing the ideal of home-made food. While households were often under time constraints, due to hectic work and leisure schedules, they also wanted to cook, valuing home-made meals.

Cajsa: It's quite, well what can I say, simple everyday fare is probably what we like best here kinda thing.
Emma: As an example, what could that be?
Cajsa: Spaghetti and meat sauce ha ha well it's that type of food yes, or chili con carne or sausage stroganoff.
Emma: Which everybody likes then?
Cajsa: Yes.
Emma: And then you all eat together?
Cajsa: Yes we always eat together.

Of importance to this household member was being able to present yourself as a "family that cooks". Throughout the interview, there were multiple mentions of the cooking skills and interests of the various household members. Proper cooking was closely tied here to the ideals of cooking from scratch (Halkier 2009).

The aspiration to be a family that cooks and eats home-made food was also connected with the aim of practicing family meals: sit-down meals, often at a set time, in which the entire family (or most of them) participated. This, as has often been pointed out in the past, is closely connected with the making of the family and the reinforcing of intra-family relationships. Food becomes, here, a form of care and the meal box becomes, in this framing, a device for family-making.

Hanna: On Fridays, *ICA* has something called Kids' Day and they've made a recipe to make it easier for children to be involved and work with, and then it's the case that children can help out and well maybe

> it's not the entire meal but parts of the meal that children can be involved in, and well, so that you involve them too.

In this extract, we see how this household takes the family a step further by also involving the kids in cooking meals, making use of a special offer from the meal box scheme they are signed up to. Here, cooking is both a pleasure and a craft (Halkier 2009), to be passed on to the next generation.

One common aspiration was to eat healthily. For some, this meant taking care to eat nutritious meals. For others, food was a way of combatting specific illnesses and conditions. In both cases, food became a device for health promotion and the meal box was enrolled, at least in part, in this aspiration, with consumers trying to eat "anti-inflammatory" foods, avoid calories or, more vaguely, eat "healthy food".

Similarly, some of the households participating in the study aspired to eat more vegetarian food. While they did not, however, aspire to having an exclusively vegetarian diet – it was not unusual for households to reject the label "vegetarian", describing it as "problematic" – they did seek to include more vegetarian food in their daily meals, seeing the meal box service as a way of accomplishing this (see also, Hertz and Halkier 2017):

> Emma: Yes ok and why did you take the vegetarian option, or are you vegetarians?
> Johanna: No we're not vegetarians but we wanted to have a vegetarian period and to try that and so we thought it would be nice to get ready-made recipes and to have the food delivered, and that was less hassle than searching for vegetarian recipes ourselves as we're not so good at that.

The vegetarian and flexitarian meal boxes aligned perfectly with this aspiration, allowing consumers to reproduce their more nuanced subjectivity as regards being a "family that eats vegetables", without having to sign up to the vegetarian or vegan labels. Here, the meal box devices connect with, enable, and redefine consumers' vegetarian aspirations and subjectivities, providing them with the ready-made labels, images and language to frame and present their aspiration as regards eating more vegetarian food in a seemingly apolitical mode (see also, Fuentes and Fuentes 2017).

Conversely, eating more vegetarian food was also framed as sustainable consumption. Consumers concerned about the environment and climate change framed eating vegetarian food as a way of taking climate-positive action and diminishing their negative impact on the environment. In Sweden, as in other countries, the debate about meat and its environmental impact has been very prominent in the media, in marketing material, and in everyday conversation (Fuentes and Fuentes 2017).

Likewise, consuming ecological food was also framed as a form of sustainable consumption. However, it was simultaneously seen as a food safety issue. As is often reported in studies of food consumption, consuming ecological food is one way of avoiding pesticides:

> Susanna: But it has to be ecological broccoli too, as broccoli is one of the dirtiest vegetables so you have to buy it ecologically as you can't have it. Yes and paprika, they're on the bad list of the 10 dirtiest vegetables, where paprika is to be found.

Thus, household aspirations are twofold: i.e. being sustainable while simultaneously avoiding what are seen as potentially-damaging substances; that is to say, concerns for the planet are combined with concerns for the body.

Finally, households aspire to avoid wasting food. Consumers do not waste food carelessly and the process of getting rid of surplus food is often anxiety-laden (Evans 2012). In our study, a few admitted that food was thrown away at times; however, for the most part, the participants claimed that they wasted very little food. Leftovers from meals were routinely taken to work as lunchboxes, for example. While there were some exceptions, meal boxes were mostly seen as effective reducers of food waste (see also, Hertz and Halkier 2017). As previous research has shown, food waste ensues when food is acquired but not eaten as the result of an unplanned event (Dobernig and Schanes 2019; Evans 2012). The careful planning of meals, which the meal box imposed on these households,

meant that very little food was wasted. Meal boxes were, in this context, perfectly aligned with enabling consumers to reduce their food waste.

Meal boxes performed a number of practical tasks for households, assisting them in their planning, cooking, and disposal of food. They also enabled and refined food aspirations and subjectivities. The meal box devices thus became intertwined with the various life projects of these households, contributing to their enactment but also reshaping aspirations and subjectivities. During this process, the meal box devices also became different types of devices, being given different meanings in different settings and practices. In that these digital market devices configure consumers, consumers also configure the meal box devices, ascribing them different meanings and assigning them different household roles.

Conclusions

In this paper, our aim was to explore if, how, and under what conditions digital food platforms – in this case meal box schemes - are able to reconfigure households' food consumption, thus promoting sustainability. Combining the resources of market studies and practice theory, and drawing on an ethnographically inspired study of 15 households signed up to meal box schemes, we set out to analyse the material-semiotic devising of food consumption. Taking meal box schemes as an example, this paper contributes to our understanding of the digitally-enabled modes of food provisioning that are emerging, showing how this particular type of digital food platform has managed to become a part of household food practices. More specifically, the study offers a number of insights into the socio-material mechanisms involved in the devising of food consumption.

To begin with, the study illustrates the consumer work involved in something that is often characterised as the effortless digitalisation of household practices (see also, Hargreaves, Nye, and Burgess 2010). Meal box devices, the study shows, have to be "worked into" households; in order for this to be accomplished, these devices need to be reconfigured by consumers. Considerable work on the part of the consumer is thus needed in order for digital food platforms to become integrated into everyday life. During the process of trying to understand the conditions under which these digital food platforms can reconfigure household practices, this study drew attention to the often-forgotten work involved in digitalisation, as well as in household technology adaptation more generally (on technology and its domestication, see Hand and Shove 2007; Shove and Pantzar 2005). Digital labour not only encompasses the work that consumers/users perform online, but also the work they perform offline to make digital or digitalised platforms work for them.

Second, this study also shows us what makes these digital food platforms valuable to consumers. As our analysis has made clear, once these devices are integrated into the household's practice nexus, they enable and shape new modes of food acquisition, cooking, eating and disposal. Meal box devices perform a number of material-semiotic tasks, assisting consumers in their planning of meals, their shopping for food, cooking, and even in their food disposal, while also offering food novelty and allowing households to pursue a range of (sustainability) aspirations and subjectivities. It is this socio-material work that makes them valuable to consumers (for a similar argument, see Fuentes and Fuentes 2017). Thus, the "demand" for these digital food platforms cannot be properly understood without exploring the socio-material work they perform.

Third, the study also reveals the fragile character of these market-consumer arrangements. The integration of the meal box device into households depended on device-household alignment and on the adaptability or mutability of these two entities. As we saw in our analysis, it was not uncommon for consumers to switch suppliers of meal boxes, or to leave the meal box market altogether. The complexity and changing nature of households often leads to the dissolution of the consumer-meal box device relationship. As other studies have illustrated, forming durable relationships with consumers is no easy task, since many elements often have to come together in order for a consumer-assemblage to stabilise (Hansson 2015; Sörum 2020).

In sum, digital food platforms – in this case the meal box scheme – are able to reconfigure household practices, partly replacing the previous practices of food planning, shopping, and cooking with the meal box practice. However, for this to be possible, considerable work is required from consumers. Once the meal box device has been worked into a household, it performs a set of crucial material-semiotic tasks for that household. For this human/non-human arrangement to be possible, market device and household have to be in alignment.

What does this mean for the issue of sustainable food consumption? Understanding the sociomaterial mechanisms involved in the devising of food consumption also tells us something about the conditions under which these digital platforms can promote sustainability. Our study shows that meal box devices contributed to the promotion of modes of sustainable food consumption by enabling the consumption of more vegetarian foods and ecological products, and by diminishing food waste through the careful planning of meals. This work is both material - in the sense that it involves the material and practical reorganisation of household practices - and semiotic - in the sense that it frames these modes of consumption as meaningful in certain ways.

However, for this to work, the sustainability aspirations of households had to become aligned with the version of sustainability being offered by the meal box companies. Sustainability is enacted in multiple ways, by both meal box providers and consumers, and finding or creating a match is not always easy. In addition, any practical problems impeding the use of the meal box service (delivery problems, shifting tastes) had to be resolved and conflicting food aspirations (healthy eating, a specific diet, the search for food novelty) had to be either pushed aside or aligned with sustainability. In line with much sociological work on food consumption, this study suggests that the orchestration of households' sustainable food consumption is a demanding accomplishment that requires a contextualised understanding of households' practice nexus (Devaney and Davies 2017; Dyen et al. 2018; Evans 2012; Plessz et al. 2016).

This analysis points to the need to base efforts to promote sustainable food alternatives on a contextualised understanding of household food consumption, whether these "alternatives" involve the increased sale of ecological products, the enabling of a vegetarian diet, or the development of new food waste minimizing techniques and practices. We must study and engage with households to grasp the complexity of everyday (food) practices (Breadsell et al. 2019). Armchair studies of households are not enough to achieve this understanding.

Our analysis also indicates the importance of acknowledging the role that materiality has in the promotion of sustainable alternatives. In the case analysed, acknowledging materiality was important both in order to understand what made these platforms appealing, but also to understand the difficulties encountered when promoting more sustainable alternatives. As others have shown, no understanding of how sustainability can be promoted can be complete without taking into account the role that technology and materiality play in the changing and establishment of new practices and routines (Devaney and Davies 2017; Hobson 2006; Sahakian and Wilhite 2014). Sustainability efforts focusing solely on communication and the changing of understandings, attitudes and values often fall short when trying to bring about changes in practices.

Furthermore, our results also suggest that efforts to promote sustainable household consumption need to acknowledge that multiple enactments of sustainability are possible. That is, in trying to promote one version of sustainability, it is imperative to also be sensitive and responsive to households' multiple and potentially conflicting enactments of sustainability.

Finally, the analysis developed in this paper also points to the need to be critical of sustainability claims regarding household food consumption. Reconfiguring household practices is difficult and entails ambiguous consequences, even when accomplished. For example, even though subscribing to a meal box service may reduce the amount of food waste generated, it can also increase packaging waste.

To conclude, we also suggest that this paper can make a contribution over and above the issue of food consumption and sustainability. Even though focusing on digital food platforms and their devising of consumption, this paper can also be read as an attempt to answer calls from consumption

scholars for more engagement with marketing practices and their material devices in order to understand the shaping of consumption (Cochoy 2007b; Evans 2019), while also addressing the scarcity of consumption-focused studies within the field of market studies (Hagberg 2016). By combining the theoretical resources of market studies with theories of practice, the devising of consumption developed here offers a way of understanding how market devices shape consumption, but also of how consumers partake in the shaping of markets. It offers a way of theoretically taking into account the nitty-gritty material-semiotic work that goes into the shaping of specific markets and modes of consumption. This theoretical approach, we contend, is well suited to offering more nuanced analyses of market-consumer interactions and transformations. In our study, the introduction of these market devices has triggered an "in vivo experiment" that has changed both consumers and markets (Geiger and Gross 2018). While this has indeed changed how agencies were distributed between market actors and consumers, the relationship was not one-sided. The market devices have configured consumers and the consumers have also configured the devices, taking an active part in the organisation of this mode of exchange (Harrison and Kjellberg 2016). Thus, what we have theoretically conceptualised and empirically illustrated in this paper is neither a case of marketisation – in the version sometimes evoked by critical scholars as a process during which market logics, models and practices are introduced into the non-market world (Saren et al. 2007; Säwe and Hultman 2018) - nor a process of domestication – understood as a process by which market objects are appropriated, "tamed", and made part of consumers' everyday lives (Haddon 2006; Pantzar 1997). In the former, the agency of markets (and market devices) is typically overemphasised, framing these as almost omnipotent. In the latter, it is commonly assumed that once objects are domesticated, they cease to be market objects (until they are re-qualified as such). Our approach to and analysis of devising consumption instead shows that market devices and consumers are locked in an ongoing process of mutual configuration in which the distribution of agencies is neither given nor stable. This does not mean that market devices cannot be powerful actors that shape consumption, it is merely an acknowledgement that the ways in which they accomplish this are often "fraught, partial, open to debate and prone to failure" (McFall 2015, 14). As McFall (2015) reminds us, "the formulation of market devices accepts that market events have multiple causes that cannot be traced to single devices" (14). Despite this, the study shows that much can be gained by tracing the multiple and partial ways in which specific market devices work towards materially-semiotically organising consumption.

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