

FUTURE FOOD SYMPOSIUM

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‘THE FUTURE OF FOOD SURPLUS,
FOOD WASTE, AND NEW MODELS
OF SOCIAL EATING’

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CONTENTS

Track	Page
<u>TRACK 1A - Rethinking Food</u>	3
<u>TRACK 1B - Changing Consumers and Markets</u>	7
<u>TRACK 2A - Surplus and Food Poverty</u>	12
<u>TRACK 2B - Surplus and Business</u>	17
<u>TRACK 3A - New Models of Social Eating</u>	22
<u>TRACK 3B - The Social Practices of Eating</u>	26

TRACK 1A -
Rethinking
Food

The multiple ontologies of surplus food

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Global estimates suggest that approximately one third of all food that is produced is wasted (Parfitt et al 2010, Gustavsson, et al. 2011). Alongside this, a myriad of concerns, not least a concern for people who struggle to access food that is safe and healthy, has given rise to a host of organizations operating across the world that seek to move food that otherwise would be wasted from the commercial supply chain to the not-for-profit sector. Drawing on Mol's material multiple ontologies approach (Mol, 2002, 1999, also see Law 2009, Jackson, et al. 2019), the research argues that once food has left the commercial supply chain and enters the surplus distribution network it ceases to be food loss or waste. In the chain of practices that move food along, throughout each step, food becomes a new thing with new affordances for enacting new effects, which are fundamentally different from those that arose in the previous step. The research argument presented here has academic value in theoretical terms for how we understand food waste, surplus food and, indeed, food more generally. The argument also has significance for policy and practice as we seek to find ways to reduce food waste by moving edible, but non-commercial food on to eaters first.

To make these claims this paper draws on ethnographic research conducted over three years supplemented by interviews and participant observation with food producers, food-using charities, eaters and other surplus food distributing organisations. The research first traces out a flow of food as it moves through the supply chain but also into the surplus food network. Looking first at the post-farm commercial sector and then the charity sector, the research interrogates how the realities of edible material alter as it moves from one site to the other. The analysis focuses on what foods become and the effects of that becoming as it moves from the commercial supply chain into the non-commercial sphere of surplus redistribution.

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Did France really “ban” food waste? The first national food waste regulation, three years on

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In 2016, France became the first country to pass a national law specifically against food waste. Drawing on seven years of research and interviews with policy-makers, corporate representatives, and non-profit stakeholders in France and the United States, this presentation will clarify the French regulation and identify lessons to be learned for other countries.

After explaining the collaborative political process that led to the law, Dr Marie Mourad will provide recent information from follow-up interviews on the implementation and impacts of the policy over the past three years. In particular, results show that the "ban" actually relies on voluntary engagement rather than coercion. Dr Mourad will then present expected future developments in French food waste policies as well as current initiatives to develop similar legislation in the United States.

An Early Assessment of England's 'Fresh Approach' to Food Waste: Problem Frames in the Resources and Waste Strategy

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Food has profound, if not unique, importance for humanity. But its production, (re)distribution and value are immersed within the complexities of global supply chains punctuated by vested interests in maintaining high levels of systematic overproduction and waste. It follows that food waste is not just a generic waste management problem (what we do with stuff, including food, once it becomes waste) but a specific resource challenge (how do we manage this precious but often perishable resource so as to prevent it from becoming waste in the first place).

Against this backdrop, this paper evaluates England's fresh approach to food waste, outlined in the Resources and Waste Strategy ('the Strategy').¹ The Strategy includes some significant and unexpected policy shifts, certainly compared with the 2013 Waste Prevention Programme ('the Programme').² However, much of the detail relevant to evaluating the Strategy's new approach will reside in forthcoming consultative and legislative detail. An early assessment is offered here by exploring how the Strategy 'frames' the problem of food waste in ways which are welcome by comparison to the frames adopted under the Programme. Problem frames clearly matter. They allocate causal and reformatory responsibility for social problems, challenge or maintain existing power structures, and push certain values and actors forward and others into shadow. While the Programme was unduly restrictive, the Strategy is correspondingly more elaborated, in three main and broadly welcome ways.

First, the Programme framed food waste restrictively, by subsuming food waste indiscriminately within generic approaches to waste, whereas the Strategy attempts to look at food waste as a specific challenge. Second, whereas the Programme constructed waste as an economic opportunity, so that food waste prevention efforts can (must?) contribute to economic growth, the Strategy identifies growth *as part of the problem*. Gone is the focus on business cases for waste prevention which, under the Programme, actively restricted what is explicitly acknowledged in the Strategy: the existence of excess quantities of food, and the structural causes of overproduction that such an acknowledgement implies. Third, whereas in the Programme, government 'stepped back' from food waste, under the Strategy, government purports to 'step back in', with some proposed interventions indicative of a shift in the locus of responsibility for addressing food waste as an upstream resource management problem.

In many ways, the Strategy 'talks the talk' of a more elaborated food waste frame. It remains to be seen whether what follows will 'walk the walk'. The Strategy is not without flaws and is thus not cause for unbridled optimism as to the future of food waste governance in England. But the frame shift indicates a welcome and possibly significant departure from what came before.

¹ HM Government, *Our Waste, Our Resources: A Strategy for England* (Crown Copyright 2018).

² HM Government, *Prevention Is Better than Cure: The Role of Waste Prevention in Moving to a More Resource Efficient Economy* (Crown Copyright 2013).

TRACK 1B -
Changing
Consumers and
Markets

Leveraging collaborations to scale up the impact of food sharing platforms

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The EU Commission estimated that every year 4.4 million tons of food are wasted by the retail sector. Matching supply and demand is the main challenges that need to be addressed. A possible solution is offered by food sharing platforms business models based on enabling digital connection between suppliers and beneficiaries of food (Michelini et al. 2018).

In contrast to traditional business models, sharing platforms act in a multi-sided market. This means that platforms have to strategically “nurture” collaborations within the ecosystem in order to survive (Parente et al. 2018).

Against this background, the study aims to point out how collaborations can contribute to add value to the business model of food sharing platforms and increase their contribution to the systemic change generating a positive impact for the society.

"Exploring the role of community projects using food surplus in supporting well-being"

Authors: Nadina Luca (University of York), Marsha Smith (Coventry University), Sally Hibbert (University of Nottingham), Ruth McDonald (University of Manchester), Bob Doherty (University of York)

*Study funded by N8 AgriFood at York

Background: Food insecurity, obesity, undernutrition, food waste and food distribution inequalities pose significant questions to the current food system. In England, community-based initiatives such as kitchens, cafés and ‘social restaurants’ show promise for recovering food surplus and providing spaces of interaction that can support well-being. However, more research is required to understand how value emerges in these contexts and the impact of such initiatives on social change. In particular, more research is needed on how health and well-being are being negotiated in the context of these initiatives using food surplus.

Aims: This study builds upon transformative consumer research to examine the experience of service users and volunteers in these community settings and the role of such initiatives in addressing key dimensions of food well-being that go beyond traditional nutritional health such as food availability, food literacy and food socialisation.

Methods: It builds upon participatory research methods, including mapping and interviews with participants (volunteers and service users) in community-based food initiatives.

Findings: Emerging findings suggest that these types of projects have potential to facilitate well-being. In such settings sharing a meal may lead to positive experiences and contribute to well-being outcomes including nutrition, food availability, food literacy and food socialisation for both volunteers and end-users.

Conclusions: The study highlights the potential of community-based food initiatives for social innovation. It indicates the creativity of consumers to deal with the limitations of the traditional food system but also the challenges facing such initiatives.

Circularity Brokers: Digital Platforms for Food Waste Recovery

Francesca Ciulli, University of Amsterdam

Food waste recovery is dependent on the creation of connections along the supply chain, so that actors with food at risk of becoming waste can transfer it to those who may be able to use it as input or for their own consumption. Such food waste recovery is, however, often hampered by what we call ‘circularity holes’, i.e., missing linkages between waste generators and potential receivers. A new type of actor, the digital platform organization, has recently taken on a brokerage function to bridge circularity holes in the food supply chain. This “circularity broker” is positioned along the food supply chain and connects actors with food that has no value to them, on one side, with other actors that can use this food, on the other side. Our study uncovers the multiple roles taken by digital platform organizations to foster waste recovery in the food supply chain.

Reducing Household Food Waste by Empowering the Consumer

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The problem: Food waste will always be generated, but the levels which are produced globally (about 1/3rd of all food produced) is unacceptably high and represents a significant environmental, economic and social burden. In developed countries the food waste problem is the worst since the majority is generated at the consumer level: In the UK, 7.1Mt of household food waste was generated in 2015. Household food waste has the greatest cost and carbon footprint (it has been all the way thorough the supply chain) and some 70% of it is technically avoidable (could have been consumed by somebody at some point). It seems too easy to state that it is the responsibility of consumers to reduce these high levels of waste. In fact, household or consumer food waste is a symptom of a bigger problem – the way that supply chains and retail systems have evolved. They are not designed to purposely generate food waste – and fault should not be attributed to any one actor, but efforts should be made to try and tackle the problem by empowering the consumer to take a business/manufacturing approach.

The solution: A study of reasons for the generation of consumer food waste revealed that the largest opportunity is in assisting consumers with planning. In effect consumers are like micro manufacturers in that they buy raw materials (ingredients), which they store (in cupboards, refrigerators, freezers) and then use a wide range of processes (such as mixing, cooking) to produce a final product (meals) to meet a demand (themselves, family, etc.). However, they do not have access to the powerful tools that industry use, such as inventory management or materials requirement planning (amongst many others). Consumers should therefore be considered as part of the supply chain and kept in the 'loop of connectivity' to enable them to better plan meals, store food and reduce waste. In this work an inventory planning tool is proposed that enables consumers to better plan their purchases, maintain an up-to-date inventory and subsequently reduce their levels of avoidable food waste. The tool is suitable for implementation via a wide range of mechanisms (e.g. website, phone app) but should ideally be linked to a retailer customer database. The ability to generate alerts for food that will soon expire or plan for meals that incorporate existing ingredients can be easily supported as can recipe suggestions to reduce food waste generated back along the supply chain. The food waste prevention opportunities are discussed as are the potential business benefits and preferential social implications.

TRACK 2A -
Surplus and
Food Poverty

Surplus food and the right to food: Dr Sinéad Furey, Ulster University

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Context: The UK Government has appointed (December 31 2018) its first Food Surplus and Waste Champion, as part of its Resources and Waste Strategy, to minimise waste, promote resource efficiency and move towards a circular economy (DEFRA, 2018). Simultaneously, the House of Commons Environmental Audit Committee recommended the appointment of a Minister for Hunger (10 January 2019). Food waste is a significant global issue and so the current debate on how to reduce it across the entire food chain needs to continue. Whilst there has been a similar focus on reducing food insecurity, it does not naturally follow that one is the solution to the other, irrespective of the political and legal momentum to combine the two issues as complementary. Popular and political media need to disaggregate the two distinct separate issues (food insecurity and food waste) and consider each as sufficiently significant as to merit its own informed and sophisticated debate.

Statement of the problem: It is the thesis of this paper that use of surplus, saleable food should not be viewed as the default solution for food poverty. To do so, may be viewed as serving “*leftover food to left behind people*” (Riches, 2018) which represents a two-tier approach to a rights-based food issue and serves to depoliticise hunger and absolve the government from their duty as signatories to the Sustainable Development Goals to deliver against published commitments for Zero Hunger and No Poverty.

Food waste: Tackling food waste and using resources responsibly and promoting a circular economy whereby we get every last possible use from resources can only be a good thing. To do so, encourages everyone across the food chain to value resources and hopefully reduce our practice of a throwaway economy equivalent to approximately ten million tonnes of food (worth £17 billion) every year, 60% of which is avoidable (WRAP, 2017).

Right to food: However, repurposing of wasted food continues to be the normalised response to the existence of food poverty (the inability to afford or access healthy food to meet our needs in socially acceptable ways) and misses the dignity and social justice issues of food poverty, while also being ineffective in reducing hunger or supporting clients out of poverty in the longer term. The use of surplus food as a response to food poverty is problematic because it serves to distract political and popular opinion away from the food waste issue, cannot guarantee a continuous supply of appropriate (socially of healthy) foods, and is ultimately demeaning to recipients. Instead, food poverty needs to be located within a context of dignity.

Recommendation: The existence of food poverty should not fall to civil society to solve; the primary duty bearer must be Government through joined-up, purposive policy making across government departments with remits for employment, social security, food, health, housing, transport and education. It is entirely possible to address the rising gap between income and food prices by pursuing policy actions that maximise income and benefit realisation in a sustainable way. Addressing the structural causes of food poverty through economically, socially and culturally fair and appropriate policy levers give us the greatest chance to lift our most vulnerable citizens out of food poverty. It is a disservice to our food poor to distract from the underlying socio-economic causes of food insecurity.

An Insight into Community-Based Food Aid and its Vulnerable Users

McEachern, M., Moraes, C., Gibbons, A. and Scullion, L.

Food insecurity across the UK has never been higher, with 14.2 million people living in poverty (Social Metrics Commission, 2018) and therefore experiencing vulnerability on multiple dimensions. Statistics on community-based food aid in the UK are largely based on individuals who use the 1,200 emergency services provided by the Trussell Trust food banks. However, this does not represent the whole story, as another 2,000 independent community-based food services are operating independently (IFAN, 2018). The invisibility of independent community-based food aid and its role for vulnerable consumers raises important questions for policymakers and NGOs that remain unanswered, which this presentation seeks to address. Firstly, how do liminal transitions occur from a position of requiring food access support to not needing it anymore? Secondly, while recognising the contested definition of ‘vulnerable’, what additional types of support (i.e. physical, behavioural, psychological, and social) are needed to facilitate these liminal transitions for vulnerable individuals? To address these questions, we adopted an interpretive lens and conducted twenty-four in-depth, face-to-face interviews with current clients of community-based food aid providers in the city of Birmingham and the Greater Manchester area. Our research suggests nuanced, temporal experiences of austerity and food poverty, and flexibility in how vulnerable consumers navigate this period of liminality. We also establish that prolonged liminality and the liminoid co-exist in food access exclusion, going against existing Trussell Trust discourses but also what the media portrays about these vulnerable consumers. In conclusion, we propose both social policy recommendations and operational guidance for community-based food aid providers.

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Identifying Food Insecurity via Food Sharing Networks and Machine Learning

Georgiana Nica-Avram (OLIO and N/LAB, University of Nottingham), John Harvey, James Goulding, Andrew Smith, Gavin Smith (N/LAB, University of Nottingham)

Food insecurity in the UK has captured public attention, but estimates of its prevalence are deeply contentious. The lack of precision on the volume of emergency food assistance is made even more ambiguous due to peer-to-peer food sharing systems (e.g. OLIO). While these initiatives exist as a solution to food waste not food poverty, they are nonetheless carrying a hidden share of the food insecurity burden, with the socioeconomic status of technology-assisted food sharing donors, volunteers, and recipients remaining obscure. In this article we examine the relationship between food sharing and deprivation generally, then use machine learning to develop a predictive model of food insecurity based on aggregated food sharing behaviours by OLIO users in the UK.

We demonstrate that data from food sharing systems can help quantify a previously hidden aspect of deprivation and we make the case for a reformed approach to modelling food insecurity. Those most in need in the OLIO case are characterised by a particular profile of network usage: recipients in acute food need are not sharers on the whole; they are takers. Their attempts to engage in other functions (e.g. donation) are muted and sparse. Reciprocity is largely absent; sharing is therefore more akin to donation/receipt.

There is also a gatekeeper effect within the network. Recipients in acute need rely on the highly active community of volunteers prepared to travel to enable re-distribution. So, there is a dependency effect; the food insecure are dependent on the vitality of volunteers. This is a reflection of the kind of phenomena observed generally in communication networks and marketing communications in the analogue era. Gatekeepers are crucial; in the OLIO case their connectedness and relatively high centrality scores are also a reflection of donor behaviour, not just communication. Indeed, their elevated levels of communication centrality are a reflection of their importance in the redistribution network.

Previous work (e.g. Loopstra and Tarasuk, 2015) has highlighted the limitations of partial or incomplete data collection when measuring food insecurity and the only solution to this issue would be to compile public and proprietary data simultaneously from behavioural records and self-reported survey data. We agree with the United Nations Special Rapporteur who suggested that “The UK should introduce a single measure of insecurity and measure food security” (2018, p.23). However, unless the organisations chiefly responsible for emergency food assistance (e.g. foodbanks, community cafés, food sharing applications) compile shared aggregate figures the prevalence of food insecurity (and its relation to food surplus) will remain obscure.

The findings also reveal the managerial need for food surplus sharing initiatives such as OLIO to monitor the prevalence of food insecurity longitudinally. The causes of food insecurity are systemic to the economy and food sharing organisations are limited in the level of assistance or relief that can be provided for those in acute food insecurity. But there is nonetheless a moral requirement on behalf of sharing economy organisations to document this previously hidden population.

An Exploratory GIS Study of the Structural Disparities in Rural Food Retail Environments Among Low-Income Elderly Communities.

Authors: Natasha McClelland, Sinéad Furey, Paul McKenzie and Lynsey Hollywood

Significance of study: Geographically Northern Ireland has a high rural spatial periphery and sparsity, resulting in a dispersed population. Dispersed populations induce lower consumer demands, which in turn exerts influence on market-driven environments. Supply and demand are used to justify the urban centralisation of amenities, leaving rural territories with rudimentary service inadequacies, including food retailers. This rural-urban dichotomy in respect of food availability is an interceding factor in food dietary choice especially for low income elderly rural consumers. Older adults are the single largest demographic group at disproportionate risk of inadequate diets, meaning food availability is not a mere fallacy but a concern that is inversely connected with household food insecurity and health inequalities. Previous food basket studies, encompassing the interplay between food availability, terrestrial location and socio-economic status have primarily focused on urban locations and a limited few have included a consensually agreed, nutritionally adequate basket with the local elderly population. The aim of this research is to map and identify elderly rural communities polarised by their spatial distribution in terms of food availability within the convenient food retail environment.

Methodology: Geographic Information Systems (GIS) was used to map the availability of a healthy food basket at the scale of Census Small Areas. Data were analysed using the IBM Statistical Package for Social Sciences (SPSS) Version 24 software.

Key findings: Rural food retailers account for 56.1% of all food retailers. Preliminary analysis shows that in comparison with urban areas, the availability of the healthy food basket is lower for elderly rural dwellers. This is most evident in the food categories of fruit, vegetables and meat.

Conclusion/Emerging recommendations: It is important that NI must not epitomise a bipartite urban/rural system, whereby elderly households are deprived by the distributional consequences of their age and rurality. This research identifies rural dwellers and communities who are exposed to divergence in terms of food poverty, including food access and food availability.

TRACK 2B -
Surplus and
Business

Food Waste Accounting in the UK Grocery Retail Sector: Approaches and Strategies

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Abstract

Food waste is one of the grand challenges acknowledged in the 2030 universal agenda for sustainable development. Sustainable development goals (SDGs) target 12.3 seeks amongst other objectives, to half global food waste at the retail and consumer levels. In the United Kingdom (UK), food waste is a national issue as approximately ten million tonnes of food and drink waste is produced yearly by stakeholders directly connected to the grocery food retail sector. This paper examines the food waste accounting in the food retail industry and questions the extent to which the food retail industry is contributing to SDG target 12.3. We investigate the approaches to tackling food waste by seven largest supermarkets in the UK through content analysis of corporate reports from 2014–2018 and company webpages. Our findings indicate the sector is well aware of the issue of food waste and supermarkets are taking a number of preventive actions but the measurement and reporting of food waste across the sector is both lacking and inconsistent, making tracking of progress problematic. The sector seems to prioritise redistribution of food surplus over reduction of food waste across the value chain. These findings have implications for sustainability and food policy.

Keywords: food waste, food retail sector and supermarkets, sustainability, corporate social responsibility, food policy

The challenge of diverting food surplus away from landfill: Insights from a study of the food retail supply chain in Southern Africa

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The tough conditions and the demanding nature of food retail operations in southern Africa present a number of challenges in mitigating food waste. It is estimated that 10 million tonnes of food is wasted annually in South Africa alone (WWF, 2017), a troubling figure given the levels of inequality and poverty in the region. Whilst government and industry have recently announced ambitious targets for food waste reduction, there is a significant lack of knowledge on the generation of food waste across supply chains, and potential solutions, such as ensuring food surpluses are diverted away from landfill.

This paper presents findings of research conducted in Southern Africa which followed 4 stages of the fruit and vegetable food retail supply chain of a large supermarket chain. 17 qualitative interviews were undertaken in total involving key informants at head office, central distribution, store and grower level. The findings present a mixed picture of current successes and failures. At store level programs have successfully ensured the majority of unsold food is consumed by staff members and donated to local communities. Improvements in food safety procedures have reduced the amount of food spoilt in transit and storage. Tensions between growers and buyers however led to food surpluses and wastage due issues around the agreed crop size and specification of produce. Food surpluses were sent to landfill by growers due to difficulties in organising a reliable re-direction program. The generation of food surpluses was legitimised by the retailer in their social mission to engage with low income communities, problematising food waste prevention against food re-distribution. The paper concludes by drawing connections between the 4 stages of the supply chain and suggests how current practices might be modified and adapted to better mitigate food waste.

Using social business to address food waste: a single case study of Massachusetts, USA.

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The challenges involved in addressing food waste require collective action between all stakeholders in society including the government, businesses and consumers. The development of co-operative practices, tools and recommendations allow for such collective action to take place, whereby each stakeholder can act on their own accord, however, Warshawsky (2015) and Thyberg and Tonjes (2016) found that formal government-led regulation is often needed to enforce such action before change can occur.

In light of the variety of strategies used worldwide to address food waste, this research aims to understand the effectiveness and challenges of one particular strategy – the ‘commercial food waste ban’ in Massachusetts – from the perspectives of multiple stakeholders, focusing on the one ban in one place particularly to allow for a thorough, in-depth exploration. A review of the literature from the social enterprise and food waste fields was drawn upon, yet the nature of this topic also requires attention to sociological and supply chain research in order to understand the complex nature of ‘wasting’ food.

Thus, researchers in the area of social enterprise form the basis of this research, including Borzaga and Defourny (2004), Defourny and Nyssens (2006), Kerlin (2006), Ridley-Duff and Bull (2015) and Glaveli and Geormas (2018). This is then combined with ideas from researchers in the field of food waste such as Papargyropoulou et al (2014), Galanakis (2016), Priefer et al (2016) and Thyberg and Tonjes (2016) to formulate a position in which to base this research.

Social enterprise has the potential to drive societal change, yet time and resources are often allocated to educational programmes and outreach in order to raise awareness of an issue such as food waste and what can be done to improve the current situation. Legislation and regulation have the power to enforce certain behaviours on different community groups (eg. consumers, commercial entities, manufacturers, farmers), which should therefore leave more resource available to directly address the issue. By studying a US state such as Massachusetts which has introduced a ‘food waste ban’ for commercial organisations, this allows for an in-depth look at how such a regulation works in practice, and what challenges have been faced as part of the process. This research aims to identify some of these challenges, to assess whether a similar model could be applied elsewhere, and to determine whether such a ban would best enable social enterprises to demonstrate effectiveness in the context of the societal issue they are aiming to address.

The qualitative method of single case study was used to compare experiences of social enterprises in and around Boston, Massachusetts, in order to generate understanding and knowledge in a real life context (Simons, 2009). Semi-structured interviews with the organisations, the government and an NGO were used to obtain information. Conclusions from this research demonstrated six emerging themes that were commonly discussed by participants, which will help to inform the next stages of the research. These six themes will then be presented and discussed in the context of the literature.

How can selling surplus food be widely accepted and reduce food waste in Denmark and the UK?

Lisa Reutgers, Coventry University

Globally, considerable amounts of edible food (surplus food) are wasted, while at the same time the world faces issues such as resource depletion, climate change and food poverty. Wasting food means wasting resources, such as water, land and energy, and creates pollution. In developed countries most food waste happens at the end of the supply chain at retail and households. This study investigates a potential solution to retail food waste based on the circular economy, which encourages the treatment of waste as a resource. Innovative businesses apply this approach and sell surplus food from retailers and restaurants to consumers. Surplus supermarkets in the UK and Denmark that acquire surplus food from retailers and food producers and sell it cheaply to consumers represent one such business model. A second business model is an app, also operating in the UK and Denmark, enabling restaurants, cafes and bakeries to sell their leftovers to consumers at the end of their service. This exploratory case study research contributes new knowledge by providing insight into this potential solution to food waste, that has not been investigated before.

The theory of diffusion of innovation is applied to capture the factors determining if this market innovation is accepted or rejected by consumers. A phenomenographic approach is chosen to reveal the experiences and perceptions of consumers and business representatives. Interviews and observations were conducted to understand the drivers and barriers for consumer engagement with the case businesses, to provide insight into the case businesses' challenges and successes in selling surplus food and to explore how those businesses can become long-term solutions to food waste.

The findings deriving from the thematic analysis of the primary data, indicated that consumers' attitudes, lifestyles, self-identities and social network influenced their engagement with the case businesses. To acquire customers, the case businesses need to provide a positive consumer experience, which is based on an attractive product range and a pleasant atmosphere. However, providing an attractive product range and pleasant atmosphere requires funding to pay for skilled staff and facilities. Surplus food has low profit margins and is difficult to acquire and to sell. Therefore, profit generation is a slow process, meaning that the case businesses need access to external funding for successful business development. The case businesses managed to sell or donate most surplus food they stocked, while customers reported that they consumed the surplus food they purchased and substituted some of their regular shopping with surplus food. Hence, the case businesses have the potential to reduce food waste.

Overall, the application of the theory of diffusion of innovation enabled a deeper understanding of the factors affecting the sale of surplus food, and thus explained how selling surplus food can be widely accepted. This insight can support marketers and policy makers in enhancing the sale of surplus food. Furthermore, it was found that surplus food has a market value and that selling surplus food can reduce food waste. Hence, this research provides new knowledge regarding consumers' perception of purchasable surplus food and demonstrates that surplus food is a valuable, marketable resource.

TRACK 3A -
New Models of
Social Eating

Eating on purpose? Exploring social eating initiatives, group participation and new modes of commensality

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Eating together in groups is perhaps one of the most significant, ubiquitous and persistent forms of social practice (Dunbar 2017). However, the presence of food insecurity and market-based modes of social inclusion, as well as the deconstruction or diminishment of the shared mealtime compounds the difficulties people on low incomes have in eating together.

However, food insecurity and deconstruction have not been explored through the lens of group eating practices, known as commensality. Commensality (Giacoman 2016) is positioned as a mechanism reflecting and expressing the production of group social cohesion.

In the East Midlands region local community food initiatives have developed a mode of public commensality which offers an alternative to no-pay services such food banks that are based on individual eligibility and economically-mediated need. In framing social eating as a public activity, a non-stigmatising approach to eating affordably in groups has been developed.

To gain insights into the development for social eating initiatives, a community organising-influenced group-moderated method has been piloted which seeks to leverage the deliberative dynamic of commensality. Formative findings suggest that social eating is constructed, crucially, as a group, participatory practice that produces, at a number of levels, a new form of commensality. The lens of commensality reveals social eating initiatives as constructing modes of social inclusion, resource stewardship, and as operating to counter the deconstruction of the family mealtime. In appropriating the lens of commensality, social eating initiatives can be seen as constructing alternative forms of social cohesion that escape the neo-liberal focus on financial exchange.

Key words: social eating initiatives, commensality, food insecurity, group conceptual mapping.

Dignity in the context of food aid– a case study of Filet Divers

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In response to the issue of food insecurity in medium- and high-income countries, Foodbanks use surplus food to help food insecure people to put food on the table. However, several scholars have attested that this way of charitable food aid can violate receivers' dignity (Power, 2011; Van der Horst et al., 2014; Garthwaite, 2016). Factors deemed responsible for such negative effects on the dignity of Foodbank receivers are the repurposing of food waste, not providing product choice, and maintaining giver–receiver hierarchies in interactions (Van der Horst et al., 2014). Meanwhile, new third sector initiatives have emerged throughout Europe trying to provide a non-stigmatizing, dignified approach to food aid. Just how these alternative approaches affect the dignity of food aid receivers has not been scientifically explored. Therefore, this case study explores how the dignity of food aid receivers is protected and promoted at the innovative organisation 'Filet Divers', a social grocery store for food insecure people in Antwerp (Belgium).

This research is based on an ethnographic fieldwork of seven weeks in 2018, containing 19 in-depth interviews with both clients, volunteers and employees of Filet Divers. Attention has been paid to four aspects of the setting offered by and interactions at the organization: (1) the way in which people were approached (e.g. as customers in a setting of a grocery store), (2) social meetings and interactions, (3) opportunities for customers to participate in the organization, and (4) political activities. For instance, concerning an approach of food aid receivers as customers, it has been investigated how product choice, the act of paying and the appropriateness of food relate to a sense of dignity among clients of Filet Divers. How these four aspects of the food aid initiative shape dignity for the food aid receivers at Filet Divers is analysed and framed by means of a theoretical framework about consumption experiences, social interactions and empowerment.

On the basis of the analysis, it is argued that the dignity of food aid receivers in the case of Filet Divers is protected and promoted by moving away from identifying people solely as food aid receivers, concealing interactions of charitable giving, counteracting social hierarchy through personal interactions, storytelling and participatory methods, providing opportunities for food aid receivers to empower themselves, and (as a condition for the previous aspects) taking care of an understanding for the situation of food aid receivers. This last condition highlights the subtle balance a dignified way of food aid asks for. Additionally, this research advocates for five conditions to approach food aid receivers in a dignified way: multilateral identification, understanding for the situation of poverty, respecting needs and preferences, unforced participation and clear management.

Improving community wellbeing using food surpluses – capturing the synergies between pay what you feel cafes, surplus food distribution and community education

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In 2015, around 10 million tonnes of consumable food were wasted by UK households, hospitality and food service, food manufacture, retail and wholesale sectors. Since then, rapid progress has been made, with the amount of surplus food redistributed from retailers, manufacturers and hospitality and food services businesses increasing by 50% in just two years.¹ Food surpluses in the UK are increasingly being channelled through charitable not-for profit organisations who directly distribute surplus food to those in need, use it to make shared meals, or use food as a teaching and training tool.

Food in Community is an award winning² grassroots initiative that from 2012, has operated an innovative four-part community led model combining into one entity: 1) a pop up pay what you feel café, 2) a weekly food redistribution delivery round, 3) a field and orchard gleaning group, and 4) a food training arm. The aims of this people centred model are to tackle food waste, food poverty and social isolation in such a way that affords dignity, respect and opportunities to both food recipients, volunteers and donating businesses.

Our observations of the synergies that occur at the intersections of the different activities we run, and through collaboration with other organisations will be presented. In particular we will focus on the gains in community wellbeing, exemplified by quantitative and qualitative data from our customers, volunteers, donors and collaborators.

There is scope for food waste reduction organisations to realise greater gains in community wellbeing whilst maintaining a robust level of food waste reduction, by fostering closer collaboration between organisations who each work with food surplus in different ways in the same locality, and in encouraging existing organisations working with food surpluses to diversify what they do.

1. Surplus food redistribution in the UK; 2015 to 2017. 2018. Waste and Resources Action Partnership (WRAP). Information Sheet.
2. Social Enterprise UK Transformative Community Business award. 2017. <https://www.socialenterprise.org.uk/winners-of-the-2017-social-enterprise-awards>

TRACK 3B -
The Social
Practices of
Eating

Anticipatory thinking and the hidden mobilisations of surplus food.

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In this paper I argue that to understand surplus food and its potential futures (consumed or wasted), closer engagement with anticipatory thinking is needed. Anticipation can be understood as making the future actionable. Drawing on interview data with different redistribution actors the paper explores the anticipatory actions taken by different actors as they attempt to manage the possible futures of foods that become categorized as surplus. In making the future present, certain actions and practices such as pre-emption and improvisation make the process workable and contain the various concerns within market arrangements. But whilst much has been made of food industry/retailer concerns mobilising the food donation, in this paper I explore how other concerns and anticipatory thinking work to mobilise redistribution actors practice and how this provides a more complex patterning to surplus food redistribution in the UK.

Food related practices within different types of student households in the UK, an in-depth qualitative analysis of food waste.

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Food waste is becoming an ever-increasing problem globally, with great emphasis being placed on companies', retailers' and consumers' economic, social and moral responsibilities with regards to food waste (Aschemann-Witzel, De Hooge & Normann, 2016; BBC News, 2017). Within the academic literature numerous factors have been identified to explain why households are wasting substantial levels of food. These include: routinized behaviours (Stancu, Haugaard & Lähteenmäki, 2016; Stefan, Heerlen, Tudoran & Lähteenmäki, 2013; Porpino, Parente & Wansink, 2015), food safety anxieties (Miles & Frewer, 2001; Watson & Meah, 2013; Wilson, Rickard, Saputo & Ho, 2017), leftover reuse routines and perceptions (Capellini & Parsons, 2013; Watson & Meah, 2013) and household size (Evans, 2011). Parental influence also appears to be of relevance regarding the amount of food wasted in households (Clark & Manning, 2017). That is, children learn a lot about consumption practices from their parents; something of which could stay with that child through adolescence. Often, students are experiencing living away from their parents, cooking, and shopping for themselves for the first time. However, little is known within academic literature about how these factors might impact upon the food that is wasted in different student households nor of the positive and negative influences that students may exert on each other in respect of food waste in general, but particularly in the context of shared living arrangements. Therefore, this research will examine the following student living arrangements: students living at home with family, students living in shared housing, and students living in halls of residence; with the overall aim of understanding how and why edible food is wasted within different types of student households, taking both parental influence and peer influence into account. Adopting a multiple theoretical lenses approach, this research project aims to incorporate practice theory and consumer socialisation theory in order to deepen our understanding of the processes and practices of household food waste.

Think-Over: The Spatial & Urban Implications of Zero Waste Food Practices

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‘Zero waste’ food practices would have significant implications for architecture, housing and urban development. However, in these fields - directly concerned with accommodating our rapidly urbanising world - the question of how any of the necessary shifts toward such food practices could be physically accommodated, is rarely discussed beyond the theme of ‘urban farming’. The spatial implications of sustainable urban food logistics, retail, food preparation and waste management do not feature in the dialogue in any significant way, and are even less frequently considered in mainstream urban development projects. I argue, this would be all the more urgent, given how significantly spatial logics - on all scales from the layout of one’s kitchen up to larger urban configurations - dictate people’s behaviours and implicitly define what is convenient to do, on a societal level. Studying the issue in the context of affluent Western cities, I aim to demonstrate how their spatial development and models of affordable housing could facilitate the necessary changes in urban food practices; what the design implications would be - the design traditions/conventions we should abandon, and where we would need to invent new solutions, so that our future food spaces could accommodate ‘zero waste’ practices. Or more broadly put, respond simultaneously to demographic changes, technological developments and environmental concerns.