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Governance by campaign: The co-constitution of food issues, publics and expertise through new information and communication technologies

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Abstract:

This paper considers food as a site of public engagement with science and technology. Specifically, we focus on how public engagement with food is envisioned and operationalised by one non-profit organisation, foodwatch. Founded in Germany in 2002, foodwatch extensively uses new information and communication technologies to inform consumers about problematic food industry practices. In this paper we present our analysis of 50 foodwatch e-newsletters published over a period of one year (2013). We define foodwatch's approach as 'governance by campaign' – an approach marked by simultaneously constituting: (a) key food governance issues, (b) affective publics that address these topics of governance through ICT-enabled media, and (c) independent food and food-related expertise. We conclude our paper with a discussion of foodwatch's mode of 'governance by campaign' and the democratic limits and potentials of a governance mode that is based on invited participation.

Keywords

Politics of food; public participation; interactions experts/public; non-profit organization

Word count: 8739

1. Food, Public Engagement and the Role of Information

Food is a 'significant arena in which publics are engaging in politically motivated challenges to techno-scientific practices, policies and institutions' (Blue, 2010, p. 147). As extant studies on alternative food networks, including the fair trade, organic and slow food movements, demonstrate, prominent concerns expressed by publics include the environmental, health, labour and animal welfare effects of the contemporary conventional agri-food system (Counihan & Siniscalchi, 2014; Goodman, DuPuis, & Goodman, 2014; Grasseni, 2013; Guthman, 2014; Lewis & Potter, 2011). Public engagement with food can involve traditional forms of collective organisation and social movement advocacy, but it can also take place in seemingly unorganised and individualistic fashion around everyday consumption practices such as shopping, cooking and eating.

Viewing consumers' food practices as an important part of their public engagement, this so-called 'personalization of collective action' (Bennett & Segerberg, 2011), makes it difficult to distinguish practices of citizenship from those of consumption (Michael, 1998). Blue (2010) supports Michael's view and adds that everyday consumers, who do not necessarily consider themselves as food activists, search for relevant information from a range of sources including the internet, and base their actions on the perceived legitimacy of the claims they encounter in a variety of media. Information about food thus operates as a key element in its ability to crystalize public engagement, whether this engagement qualifies as collective or individualistic.

Information that enables public engagement stems from a variety of sources, including governmental agencies, non-governmental organisations (NGOs), consumer advocacy organisations, social movements, food companies, supermarkets, celebrity chefs and expert nutritionists. This information is shared in manifold formats, such as legal texts, food labels,

advertisements, manifestos, research articles, news stories, Facebook posts, tweets, or direct testimonials. Individuals navigating this informational landscape are confronted with the complex task of evaluating the relevance and trustworthiness of different pieces of information. This task is part of a broader development which Frohlich (2017) describes as 'the informational turn in food politics', a form of governance premised 'on the belief that it [is] better to manage markets indirectly through consumer information than directly through command-and-control regulatory architecture' (Frohlich, 2017, p. 145).

We suggest that this 'informational turn in food politics' goes beyond nutrition labelling, the focus of Frohlich's analysis, as the production and dissemination of food-related information is now a critical activity of many NGOs, social movements and individual activists, invested in the promotion of 'ethical' food choices. The widespread use of the internet and social media platforms has accentuated this 'informational turn, as many of those seeking information about food now start and finish their search in digital media (Lupton, forthcoming).¹

This evolution has brought into agri-food systems the sort of 'informational governance', that Arthur Mol (2006) observed in the context of environmental issues. Mol described informational governance as a process in which:

[...] information (and informational processes, technologies, institutions, and resources linked to it) is fundamentally restructuring processes, institutions, and practices of environmental governance, in a way which is essentially different from that of conventional modes of environmental governance. Where conventional environmental governance relies on authoritative resources and state power, in informational governance information becomes a crucial (re)source with transformative powers for a variety of actors and networks. (Mol, 2006, p. 501)

In this paper we focus on the role played in the informational governance of agri-food systems by non-governmental, non-profit organisations. Our case study concerns the form of

advocacy developed by the German organisation *foodwatch*, which relies on new information and communication technologies (ICTs) to communicate with interested consumers on food-related issues. In the first section of the paper we explore the conditions of possibility under which *foodwatch* emerged, tracing how the organisation interacts with consumers and what information on food issues it disseminates. We consider how the organisation has positioned itself in relation to other actors in the German (and to some extent European) food policy arena, and its use of ICTs to inter-mediate between official governing actors, such as the state and supra-national regulatory agencies, and individual consumers.

Informed by a review of the literature on public involvement with technoscience and food, we focus our analysis on one of *foodwatch*'s main online communication tools – the e-newsletter. Drawing on a thematic analysis of 50 e-newsletters published in 2013, we describe *foodwatch* as a digital space of invited participation that draws on a campaign-centred communication approach. This approach, we argue, assists in simultaneously constituting (a) key food governance issues, (b) affective publics that address these topics of governance through ICT-enabled media, and (c) independent food and food-related expertise.

We argue that *foodwatch* positions itself as an expert organisation on food issues through three interlinked modes of action: by 1) employing activist strategies to break the expertise barrier in the German food policy domain (cf. Parthasarathy, 2010; Sannazzaro, 2016); 2) forming collaborative networks with consumers and a range of alternative experts; and 3) denouncing any ties to corporate, state or supra-national regulatory agencies. The resulting 'networked expertise' (Allgaier, 2012), we suggest, enhances *foodwatch*'s credibility and influence in public debates on food. In our discussion we reflect on *foodwatch*'s mode of 'governance by campaign' and the potentials and limits of this mode of governance – a mode based on public invitation. We argue that governance by campaign is characteristic of a form of

'technical democracies' (Callon, Lascoumes, & Barthe, 2011) in which techno-scientific controversies cannot be fully managed by traditional political institutions and forms of representation.

2. Foodwatch

Foodwatch describes itself as

an independent, non-profit organisation that exposes food-industry practices that are not in the interests of consumers. Foodwatch fights for the right of consumers to know exactly what they are buying and to enjoy good food that is healthy and uncontaminated².

Founded in Berlin, Germany, in 2002 by former Greenpeace Germany director Thilo Bode, *foodwatch* emphasises that it is an independent organisation that does not accept any funds from government sources or the food industry and is funded exclusively by membership fees and donations from supporters. Currently *foodwatch* has more than 35,000 members (06/2016; minimum membership payment €5 per month) who pay membership fees. *Foodwatch* states that 'independence is our greatest imperative'³ with revenues and expenses published annually on the website⁴.

In addition to the Berlin office, *foodwatch* has had offices in Amsterdam, the Netherlands, since 2009 and Paris, France, since 2013. Ultimately *foodwatch* aims 'to build a strong, European campaign organisation that is represented in all major EU Member States and that provides consumer-focused input into European legislative processes, advocating for more consumer rights'⁵. *Foodwatch's* goals as stated on its website are as follows:

- 'foodwatch makes things clear: we do independent research and analysis, we tell the public which food products contain toxins, we name the parties responsible and we tell consumers about the barefaced lies used in food advertising.
- foodwatch interferes: we say what's wrong and don't mince our words to the public and the media.

- foodwatch puts on pressure: we mobilise consumer-protest activities and take offenders to court on behalf of consumers.
- foodwatch is political: we propose changes in the law in areas where no one else seems to care, and we exert pressure to change policies.
- foodwatch is independent: we don't accept any funds from government sources or the food industry. We are completely funded by membership fees and donations from our 25.000 (January 2013) supporters.⁶

Foodwatch claims that there is

'no similar organisation in other European countries which targets specific products with scientific information about misleading claims. By developing a European scale foodwatch, our aim is to help build a consumer base that can make informed decisions about its food choices. In doing so, this will send a powerful message to producers and others in the supply chain, to regulators and to investors.'⁷

Over the last few of years, campaigns by *foodwatch* have focused on a range of food-related issues, such as radiation, dioxins in food and misleading claims on food products. Currently, *foodwatch* describes and classifies its activities into six different types of campaigns and themes, namely 1) food and health, 2) labeling and logos, 3) food scandals, 4) consumer deception, 5) world nutrition and environment and 6) politics and lobbying⁸. As a closer look reveals, these categories are not mutually exclusive, as some campaigns fit into several categories at once. For instance, the 2013 horsemeat scandal is listed under both food scandal and consumer deception. *Foodwatch* advertises specific campaigns through its website, e-newsletters, and other social media outlets (e.g., Facebook and Twitter). Traditional media (newspapers, television) as well as their online versions, cover *foodwatch*'s campaigns regularly, potentially attracting additional website visits and newsletter subscribers.

Foodwatch is one of the few organisations in Germany that exclusively focuses on food. Other German consumer protection agencies and organisations, such as *Verbraucherzentrale* (funded by the German state; similar to the citizen advice bureau in the United Kingdom), *Verbraucherinitiative* (an independent NGO), funded by members and donations), and *Stiftung*

Warentest (independent foundation, funded by the German state) focus on a range of products and consumer protection issues. The sphere of German food and consumer advocacy is populated not only by state-funded agencies or non-governmental organisations, but also by a wide range of food activists, including chefs, food bloggers, national and international political figures, authors of food-related investigative journalism, representatives of food-related associations (e.g. German Diabetic Association) as well as multiple industry associations. For instance, researchers studying the constellations of actors active in the food safety debate in Germany observe 'what used to be an exclusive domain of government agencies has become a sphere of influence for especially two other groups – the food industry and civil society actors. Now, these actors together define "the public interest in food policy" (Lang et al. 2009: 12)' (Miltener, Maier, Pfetsch, & Waldherr, 2013, p. 3).

With numerous stakeholders and often diverging agendas, the food activism realm is a contested space. This leads to our research question: within the relatively crowded German food advocacy and consumer protection arena, how does *foodwatch* gain legitimacy? Which rationales structure the organisation's uptake and prominent use of digital media? Ultimately, we discuss the potential and limits the prevailing logic presents for food governance more generally.

3. Public Participation in Techno-Scientific Issues

Our analysis is informed by a growing body of literature in the multi-disciplinary field of science and technology studies (STS) that considers how lay people engage with techno-scientific matters. This literature highlights how issues are constituted in participatory processes and their performative effects, including those instigated through 'new social movements' and NGOs (cf. Bucchi and Neresini, 2008). In particular, we discuss literature that

attends to the strategies activists employ to gain a voice in science and technology policy domains and how these strategies assist in forming ethno-epistemic assemblages, that is, temporal formations of experts and laypeople aiming to gain legitimacy and credibility among the public (Irwin & Michael, 2003).

In addition, our analysis draws on research exploring the roles of digital media in mobilizing activism and its effects on public engagement, with a focus on Bennett and Segerberg's (2011; 2012) conceptual distinction between a logic of collective action and a logic of connective action. Bennett and Segerberg (2012) observe that collective action typically depends on high levels of organisational resources and requires people to form collective identities. By contrast, in the logic of connective action, 'taking public action or contributing to a common good becomes an act of personal expression and recognition or self-validation achieved by sharing ideas and actions in trusted relationships' (Bennett & Segerberg, 2012, pp. 752-753). Two aspects of this connective logic are particularly pertinent for our analysis of *foodwatch*: a) the recognition of digital media as organizing agents and b) the recognition that social networking involves co-production and co-distribution based on personalised expression (Bennett & Segerberg, 2012, pp. 752-753). To elucidate these processes in our case study, we draw on Papacharissi's (2015) work on affective publics, in which she attends to the roles that expressions of sentiment through digital media play in the formation of issue publics. Through combining theoretical perspectives from STS, NGO and social movement studies and digital media studies, we analyse how one NGO, *foodwatch*, has gained prominence in the debates about food quality, safety and policy in Germany, and the roles that digital media have played in this process.

Public participation in techno-scientific issues was long been viewed through the lens of the so-called deficit-model of public understanding of science. Proponents of such a view argued

that lack of scientific literacy underpins the public's lack of understanding and appreciation of techno-scientific innovations. Science education and communication were considered the panacea to alleviate this knowledge deficit. This view has been criticised since the 1990s, with critics arguing that lay people bring knowledge and competencies that offer additional insights to those of scientists or other specialists and hence enrich the discussion on techno-scientific issues (Wynne, 1995). As a result, a shift has been proposed from *educating* the public to *involving* or *engaging* the public in/questions of science (Wynne, 1995). This has led to the development of a range of formats and tools, such as public consultations and citizen conferences, through which institutions initiate dialogue with the public and aim to obtain and act on citizens' concerns related to techno-scientific innovations.

STS scholars have described and evaluated these engagement formats (for a recent overview see Stilgoe, Lock, & Wilsdon, 2014), with some scholars suggesting these formats could be conceptualised as a 'technology of elicitation' (Lezaun & Soneryd, 2007) that extracts public opinion as appropriate. In addition, public understanding and public involvement/engagement research has been challenged for excluding the public from actual processes of 'scientific' knowledge production (Callon, 1999). Most notably, Callon and colleagues (2011) argue that knowledge is not simply produced in scientific laboratories and other demarcated settings. Rather, they suggest a model of knowledge co-production in which knowledge is interactively produced in so-called 'hybrid forums' where specialists and non-specialists encounter each other (Callon et al, 2011). Callon et al. define hybrid forums as:

open spaces where groups can come together to discuss technical options involving the collective, hybrid because the groups involved and the spokespersons claiming to represent them are heterogeneous, including experts, politicians, technicians, and laypersons who consider themselves to be involved. They are also hybrid because the questions and problems

taken up are addressed at different levels in a variety of domains, from ethics to economic and including physiology, nuclear physics, and electromagnetism. (Callon et al, 2011: 18)

How issues are defined, chosen and communicated in initiatives of public involvement and in hybrid forums differs considerably. Studies of public involvement with science and technology (see Irwin 2001, Jasanoff 2003, Wynne 2005, Rogers and Marres 2005, as cited in Marres, 2007, p. 761) emphasise that events such as public consultation and citizen conferences are not as democratic as they are intended to be, because issues are framed by experts prior to public deliberation. In hybrid forums, however, the articulation of issues is not pre-defined, and issues are instead collaboratively defined and refined. Thus, the articulation of issues is not merely an important aspect of democratic processes but 'what these processes are all about' (see Latour 2004, Callon et al. 2001, as cited in Marres, 2007, p. 762).

In her review of STS-approaches to issue formation, Marres argues that 'STS has as yet not made it fully clear why and how a dedication to issue formation is characteristic of *democratic* politics' (Marres, 2007, pp. 775, emphasis in original). Marres (2007) suggests that work by pragmatists Walter Lippmann and John Dewey assists with answering this question:

Lippmann and Dewey argued that public involvement in politics was occasioned by the rise of issues that existing institutional arrangements failed to address. They proposed that the settlement of public issues depends on institutional outsiders adopting and articulating those issues and bringing them to the attention of institutions that are equipped to deal with them. Lippmann and Dewey thus clarified a conceptual point that remains obscure in STS: why a *democratic* politics would be dedicated to issue formation. (Marres, 2007, pp. 775, emphasis in original)

Marres points out that 'publics form when issues require their involvement, and these publics are dedicated to ensuring that such issues are dealt with' (2007, p. 770). A similar view is expressed by Jasanoff (2014), who argues that 'The Public' is not a pre-existing entity but

consists of 'publics' that selectively form around particular techno-scientific objects and 'matters of concern'. These issue-oriented publics participate in debates and, in Jasanoff's view, co-construct scientific and technological futures.

Relatedly, Parthasarathy (2010) argues that members of the public - including patients, consumers and citizens - increasingly demand to be heard in the development of new policies regulating science and technology. However, the public's main challenge is to 'break the expertise barrier', i.e., 'the formal and informal rules of science and technology policy-making which make it difficult for those without technical expertise to engage as equals' (2010, p. 355). Against this background, Parthasarathy (2010) asks: what strategies do activists employ to gain a voice in science and technology policy domains? She identifies major strategies activists use to overcome the expertise barrier, and groups them into four categories of action (Parthasarathy, 2010, p. 355):

1. Deploying established expertise;
2. Introducing new kinds of facts;
3. Introducing new policy-making logics; and
4. Attacking bureaucratic rules.

Through this framework, Parthasarathy identifies and compares the strategies activists use in breast cancer and life form patent activism (see table 1). She finds that both sets of activists employ all four strategies, albeit with variations in the deployment and success of these strategies. For instance, both activist groups deployed established expertise, but breast cancer activists created formal arrangements by establishing a formal science-training programme, whereas life patent activists deployed expertise on an ad-hoc basis.

Parthasarathy's framework has been taken up by Sannazzaro (2016) to analyse strategies employed by Grupos de Pueblos Fumigados (GPF) activists protesting against agrochemical spraying in urban areas in Argentina. Sannazzaro finds that all four strategies are deployed by GPF, alongside additional strategies that she categorises as 'building expert knowledge'. This fifth category comprises the use of citizen cartography, the creation of collaborative research relationships and the development of proposals that offer alternatives to current production models (Sannazzaro, 2016, p. 6). Sannazzaro argues that this fifth category captures strategies pertaining to the development of 'independent expert knowledge', whereby independent denotes '... the presence of self-convened citizens who have no corporate links to publicly distrusted institutions (government, companies, international organisms, etc.)' (2016, p. 3). She suggests that the different groups that assemble in GPF, including middle-class professionals and peasant and indigenous organisations, together articulate new knowledge as an interlocutor with traditional expert knowledge (Sannazzaro, 2016, p. 11). Ultimately, Sannazzaro argues that these collective, co-produced forms of knowledge building constitute a 'civic epistemology' (cf. Jasanoff, 2005) in the sense that members of GPF 'construct, review, validate, and deliberate politically relevant knowledge' (Miller, 2008, p. 1896).

Irwin and Michael (2003) describe such collectives as forming an ethno-epistemic assemblage⁹. In these assemblages, laypeople and experts are not opposed but collaborate to address a scientific or technological issue of concern. Thus, the concept helps to capture the 'empirical complexity and heterogeneity of relations between lay publics, scientific institutions and forms of governance' (2003, p. 146), whereby 'epistemic' emphasises assemblages' capacities to specify what is true and 'ethno' points to the local and situated character of that knowledge. Studying ethno-epistemic assemblages reveals how different actors with various

knowledges develop, maintain, remain in and leave these assemblages, and offers a fruitful way to understand the dynamics of public controversies in hybrid forums.

In this paper we employ Parthasarathy's framework, and Sannazzaro's extension of the framework, to consider how *foodwatch* breaks the expertise barrier in the German food advocacy and consumer protection arena. In other words, we examine how *foodwatch* becomes an organisation with relevant and legitimate expertise on food matters. Inspired by Hilgartner's (2000) sociological study on how U.S. advisory bodies on diet and health achieve credibility, we treat 'expert advice as performance' in this paper. Thus, we explore 'how credibility is produced in social action, rather than treating it as a pre-existing property of an advisory body' (Hilgartner, 2000, p. 7). We ask:

- How do strategies to break the expertise barrier assist in forming an ethno-epistemic assemblage in the case of *foodwatch*?
- What kind of expertise does the organisation offer?
- How does this performed expertise assist in acquiring a voice in the German food advocacy and consumer protection arena?

In the next sections, we examine *foodwatch*'s strategies through an exploratory analysis of the organisation's website and a detailed analysis of one of *foodwatch*'s main communication tools – the e-newsletter.

4. Foodwatch's Web-Based Campaigning

Our exploratory analysis of *foodwatch*'s website (in German and English) reveals the organisation's focus on web-based campaigning. Campaigns are frequently used by NGOs to inform interested members of the public about particular issues the organisation deems

problematic for a variety of ethical, social justice or other reasons (Baringhorst, Kneip, & Niesyto, 2009). A campaign, thus, 'can be understood as a series of communicative activities undertaken to achieve predefined goals and objectives regarding a defined target audience at a set time period with a given amount of resources' (Baringhorst, 2009, p. 10). Baringhorst (2009) suggests that all campaigns share three minimal roles: '1. Gaining public awareness for a particular cause, service, organisation or person; 2. generating credibility for a person or organisation; and 3. generating cognitive, evaluative and behavioural changes in a target group of people (Saxer, 2006: 30-31; Bonfadelli, 2004: 101)' (p. 10).

When looking at *foodwatch*'s website, the organisation's focus on web-based campaigning becomes immediately visible. For instance, in March 2013¹⁰, users were greeted by a photo collage of a horse with a cow's head and a short sentence written into the collage that invited them to participate in a *foodwatch* campaign: 'Stop horsemeat fudge [Schummel] and sign the email petition now!'. Below this collage, which took up the larger part of the screen, the headline 'Recent news' introduced a list of news items. These were arranged according to individual headlines, frequently illustrated by photographs and always followed by a short description and a 'more' button to read the full story. On the left, a sidebar allowed visitors to navigate to different parts of the website starting with 'A personal note [In eigener Sache]' followed by 'Campaigns and themes', 'Participation [Mitmach-Aktionen]', 'Book: "Food falsifiers" [Essensfälscher]', 'About us', 'Literature and films', 'Newsletter', 'Multimedia', 'Press', 'Contact us and data protection', 'English subsite' and 'French subsite'. Below the sidebar was an orange button that invited visitors to 'Support *foodwatch* now', followed by a red button that invited visitors: 'Subscribe to newsletter'. Clicking on the campaigns and themes tab on the sidebar, a list of *foodwatch*'s current campaigns opened. In March 2013, the organisation ran 35 campaigns listed on the website in alphabetical order. Topics included:

acrylamid, alcopops, traffic light labelling, organic food, BSE and animal meal, Dioxin, EHEC, nutrition policy, label fraud, EU warning system, meat in protective atmosphere, meat scandals, animal feed, restaurants, GM foods, country of origin labels, information law, children and nutrition and more.

In addition to using its homepage, *foodwatch* communicates its campaigns through a range of ICT-enabled channels including its e-newsletter (388,124 subscribers, 22 June 2016), Facebook (349,632 likes, 22 June 2016), Twitter (62,688 followers, 22 June 2016), Google⁺ (8,477 followers, 22 June 2016) and YouTube (8,129 subscribers, 22 June 2016).

Our analysis of *foodwatch*'s strategies to break the expertise barrier focuses on the e-newsletter for several reasons. First, this channel currently has the highest reach in terms of subscribers/followers compared to other ICT-enabled channels. Second, *foodwatch*'s e-newsletter gives an overview of the organisation's campaigns. Third, similar to *foodwatch*'s website, the e-newsletter provides sufficient space to describe food issues that the organisation deems problematic and hence the organisation's issue descriptions and calls for action can be studied. Finally, the e-newsletter offers insights into the organisation's self-description and its envisioned role in transforming food governance.

4.1. Thematic Analysis of Foodwatch's E-Newsletters in 2013

Our analysis of *foodwatch*'s e-newsletters spans a period of one year, from January to December 2013. The e-newsletter appeared approximately every seven days in the year we surveyed, and could be read on or downloaded from *foodwatch*'s website, or received by email (via free subscription). Using thematic analysis, our aim was to search for and record thematic patterns in the corpus of e-newsletters we had collected (Guest, MacQueen, & Namey 2012). Two German-speaking researchers – a sociologist and an anthropologist – analysed the e-

newsletters. They first read the e-newsletters closely and repeatedly, to familiarize themselves with the content. This initial reading and familiarisation revealed that *foodwatch* focuses in many of its campaigns on issues that affect many eaters (e.g., food safety) which enables the organisation to speak to a large part of the consumer constituency independent of, for instance, income or education. Then, they generated initial codes and searched for themes among the codes, creating an English-language table that summarized the themes and codes that appeared in each e-newsletter. Joined by a third team member, an anthropologist, the researchers reviewed the themes, defined and named them (Miles & Huberman, 2005).

Based on this analytical procedure, we found that the key themes in the 50 e-newsletters in 2013 were food safety, consumer lack of knowledge, transparency and change. However, it is important to note that our naming of these key themes draws on descriptive language that does not capture the affective charge present in the wording of the original e-newsletters, which will we elaborate on in later sections. The identified themes mirror *foodwatch*'s mission and convey the organisation's view on the current state of food governance in Germany, which the organisation characterises as fostering unequal knowledge distribution, and lacking in industry and government transparency.

Typically, each *foodwatch* e-newsletter follows the same format. First the subscriber is greeted by name, next the topic/issue of the e-newsletter is introduced in the first paragraph, then the topic is discussed in its larger context and more details or examples are provided. In the last paragraphs of the e-newsletter, *foodwatch* explains its demands and suggested consumer actions. The e-newsletter typically closes with a call to sign an online petition, send emails to the company/organisation discussed in the e-newsletter and become a *foodwatch* supporter (in German: Förderer/Förderin). The e-newsletter closes with a thank you and greetings from *foodwatch*'s director Thilo Bode. The e-newsletter typically follows this format:

Dear Subscriber,

I am very angry and exasperated about this issue [outline issue briefly].

This particular person is to blame. They have done all of these awful/irresponsible things, or have ignored the issue entirely despite our repeated calls for action, and need to be held to account.

And/or companies are deceiving us and there are insufficient regulatory mechanisms despite clear (but unelaborated beyond generalisation in this email) evidence for a need for them.

Join our protest.

Dear Supporters I will continue to fight but I need your support, we need numbers and money.

Thank you and best regards,

Thilo Bode CEO / The foodwatch team

Foodwatch's focus on one specific issue per campaign is typical and central for effective campaigning (Lamb, 2011). No information is available on *foodwatch's* website on how *foodwatch* selects specific food issues for its campaigns.¹¹ However, our analysis of *foodwatch's* e-newsletters suggests the selection of particular issues is likely based on topicality (reflecting trending news, such as the 2013 horsemeat scandal), salience (topics that generate media attention, such as food speculation by German banks and marketing sugary foods to young children) and political timeliness (such as the negotiation of the Transatlantic Trade and Investment Partnership, TTIP, between the United States and Europe in 2014/15). Like the focus on one issue per e-newsletter, the tone of the e-newsletter is consistent, too. This tone can be described as confident and authoritative, while conveying strong emotions such as anger, frustration and annoyance.

In our analysis, we draw on Dorothy Smith's (1978, 2001) approach to textual analysis. For Smith, how a text is organized brings into being the phenomenon that the text is supposedly 'about'. For example, in her analysis of a text which claims to describe someone suffering mental illness, Smith (1978) shows how organisational features of the account enact certain

qualities that generally are described as mental illness. In other words, Smith's approach highlights the importance of analysing the social organisation of a text. She asks us to consider which organisational features of the text give rise to authorising it as a factual account (Smith 1978, 33). One such organisational feature that Smith highlights is the use of contrast structures (1978, 39, see also 40-47, 51). Smith argues that statements that instruct readers on how to interpret an event or behaviour as contrasting to the norm tend to precede supposedly 'objective' descriptions of events and behaviours. Like Smith, our analysis shows how *foodwatch* deploys organisational features in text to establish the acceptability of e-newsletters as factual accounts, and thereby enact expertise.

4.2. Horsemeat Scandal E-Newsletter: Foodwatch's Call for Consumer Action

On 22 February 2013, an e-newsletter entitled *Horsemeat – THIS is the real scandal (Pferdefleisch – DAS ist der eigentlich Skandal)* reaches *foodwatch* subscribers' email inbox. After a personal greeting "Hello and good afternoon, [subscribers' full name]" the e-newsletter starts with:

*It is a gigantic scandal, into which food companies across half of Europe are enmeshed: **tons of horsemeat instead of beef have been palmed off onto consumers; over months nobody noticed the fraud apparently.** But the big supermarket chains, that sold the affected ready-to-eat meals in their name, won't have to fear painful sanctions. Although their own controls have obviously failed. And we consumers? We don't even learn about the names of all the affected products!* (own translation, emphasis in original)

This first paragraph introduces the issue, the horsemeat food scandal, by describing what happened, who is involved and where. However, this introductory paragraph is not a neutral description. Considerable outrage is expressed about the fact that horsemeat labelled beef has been sold to consumers. This tone of outrage is accentuated by the choice of words (e.g.,

scandal, enmeshed, palmed off, fraud), the accusing tone (e.g., apparently, obviously, and we consumers?, don't even) and the repeated use of words signalling quantity and size (e.g., gigantic, half of Europe, tons of, over months, nobody, big). *Foodwatch* lists three dimensions of the scandal that the organisation deems particularly problematic: a) no sanctions for supermarkets that sold products containing horsemeat under their own-label brands, b) no internal (nor external) controls of retailers' own-label brands and c) the lack of information available to consumers about which own-label brands are affected.

After listing the problems, the e-newsletter introduces a set of possible solutions in the next paragraph:

*We demand: The state [die Politik] must become active! **The retailers [der Handel] must take responsibility for their own label products and in case of irregularities [Verstößen] severe fines should loom – no fines that can be paid from petty cash. In addition, authorities [die Behörden] need to inform us consumers immediately about all affected products! Support our demands and sign now our Email-campaign. [Followed by a link].*** (own translation, emphasis in original)

The proposed solutions imply that the state has not been sufficiently active in regulating and controlling food producers and retailers, and that it neglected the timely distribution of information to consumers. This is further explained in the next three paragraphs which note that the scandal about non-declared horsemeat is in fact a clear indicator of 'weak or missing regulation of the food market'. This lack of regulation leads to the 'absurd' situation that, for instance, German food inspectors are not allowed to publicise a complete list of affected products, while retailers are exempted from own-brand product liability.

The e-newsletter concludes with more calls for consumer action:

***Help us by supporting our demands and write directly to federal minister for consumer protection Ilse Aigner:
Sign now our email-campaign! [with hyperlink]***

And you can do more: forward this email to as many friends and colleagues as possible or share this call for action via facebook. Every vote [Stimme] counts!

Click yourself into it,

Your foodwatch team (own translation, emphasis in original).

Foodwatch invites consumers to support its demands through becoming a *foodwatch* member, writing letters, signing the campaign online, forwarding the e-newsletter to friends and colleagues, sharing the call via Facebook or liking the campaign on Facebook (a like button is included in the e-newsletter). Despite the innovative use of ICT platforms, the suggested actions - protesting and lobbying - are traditional political activities.

The actions *foodwatch* suggests are pre-defined by the organisation. Clicking like buttons, sharing information, or copy-pasting a letter, signing and sending it to a nominated (email) address are actions that leave little room for creative citizen engagement. This type of *pre-packaged advocacy*, as we would describe it, has a consumer logic built into it. *Foodwatch's* subscribers (but also those who visit the website for the first time) can choose among a range of ready-to-participate campaigns depending on their seemingly individual preferences (cf. Eli, Dolan, Schneider, & Ulijaszek, 2016).¹²

How is the e-newsletter organised to achieve acceptability as a factual account (Smith, 1978) so that consumers are compelled to support *foodwatch's* campaigns? The e-newsletter texts present a stark contrast between the scandalous practises of big food companies/retailers and the inertia of the state. This contrast is achieved in the first two paragraphs of the e-newsletter. In the horsemeat e-newsletter, the scope and reach of fraud in the meat industry were contrasted with the lack of state sanctions. The e-newsletter subsequently listed suggested state actions to alter the status quo. Moreover, by contrasting the intolerable (active) corporate practices with the passivity of the state, a space for *foodwatch* and its call for consumer action

is carved out. *Foodwatch* is thereby presented as the actor that can rattle state institutions into action.

Another contrast structure involves the use of the words 'we' and 'us'. The use of these first-person plural pronouns – as in 'And we consumers?' or 'In addition the authorities need to inform us consumers immediately about all the affected products!' – indicates that *foodwatch* portrays itself as part of the consumer constituency (cf. Eli, McLennan, & Schneider, 2015). However, in other sections of the e-newsletter, *foodwatch* is referred to in the third person, and addresses consumers as distinct from the organisation: 'Help us by supporting our demands and directly write to federal minister for consumer protection Ilse Aigner'. In doing so, *foodwatch* communicates its proximity to consumers while indicating that it has the power and expertise to speak on behalf of consumers – provided the organisation wins consumers' support. Ultimately, this signals the co-constitutive role consumers - organised as 'manufactured communities' (Eaton, 2010) - play in the organisation. In the case of *foodwatch*, as a consumer public forms around a specific consumer issue, invited by an expert organisation, so does the organisation itself, since it depends on the public's support to reinforce and assert its continued expertise. In other words, issue, public and expert organisation are co-constituted.

From this perspective, *foodwatch*'s rhetoric, with its strong focus on the scale of the issue and the numbers of producers/retailers involved and consumers affected, is deployed to mobilise consumers and grow food-issue publics. The larger the number of mobilised consumers, the more visible the issue and the organisation become; this in turn strengthens *foodwatch*'s position in the German food advocacy sphere. The importance of having sufficient consumer support to tackle problematic industry practices and slack government regulation is again emphasised in the postscript of the e-newsletter:

P.S. No matter if horsemeat in lasagne, dioxin in eggs or putrid meat in doner kebab [Gammelfleisch im Döner]: Far too often food scandals have no serious consequences, because the state [die Politik] protects the interests of the industry. That is what we want to change – with your help! Please support us and become a member: [link to membership subscription page]. (own translation).

Foodwatch repeatedly invoked the numbers of its followers and supporters in nearly all 2013 e-newsletters. In the e-newsletters and on the homepage, the organisation provided regular updates on how many consumers signed the most recent campaign. In addition, the organisation offered information on the number of (financial) supporters, comprising individual consumers, foundations and other organisations. Numbers were used in the e-newsletters to convey that *foodwatch* was positioned to tip the market's balance of power in the consumers' favour.

5. David versus Goliath, or How to Break the Expertise Barrier

To become a legitimate expert in the domain of food governance and consumer protection in Germany, *foodwatch* employs strategies to challenge the expertise of selected actors in this arena. These strategies resemble those identified by Parthasarathy (2010) and Sannazzaro (2010): 1) deploying established expertise, 2) introducing new kinds of facts, 3) introducing new policy-making logics, 4) attacking bureaucratic rules and 5) building expert knowledge (table 1). *Foodwatch* uses these to advance the organisation's overall goal of establishing itself as an *independent expert* on food advocacy and consumer protection.

Insert table 1 here

Foodwatch deploys established expertise building on its core team of 13 full-time and five part-time staff members plus several freelance and honorary employees. The team's expertise centres predominantly on public relations and campaigns. By using technical, legal and policy language on food issues in the e-newsletters and on the website, *foodwatch* signals familiarity with the food governance and consumer protection arena. However, none of the statements about industry practices are directly supported by references to published studies, reports or research. It is also noteworthy that no exact numbers are mentioned. Rather than providing a detailed account of who did exactly what and how many products and people have been directly affected, the e-newsletter offers a summary account that seeks to grab consumers' attention. This vagueness may be explained in part by the on-going nature of the scandal and the need to prevent future litigation. However, we suggest this vagueness is deployed strategically to convey that *foodwatch* has expert knowledge of issues, markets and policy domains, without referring to any external sources. By not citing relevant reports by scientific, policy, or food experts, *foodwatch* strengthens its position as 'the' independent expert that consumers can trust to disclose unbiased information and protect their interests.

In addition, *foodwatch* introduces new kinds of facts in the e-newsletters, in order to convey its unique access to information. For instance, in the horsemeat case, the organisation focused on own-brand supermarket products and retailers' limited liability. This contrasted with the contemporaneous media debate, which focused mainly on food manufacturers, where they sourced their meat and which companies or products/brands were affected. Hence, *foodwatch* introduced a new aspect into the debate, namely limited (state or other independent forms of) control of retailers' own-brand products, limited liability of retailers for the content of those products and no duty by the state to release information about own-brand products that are labelled incorrectly. Thus, *foodwatch* demonstrated its expertise on less obvious aspects of

German food markets and policy. The introduction of new facts is closely intertwined with the introduction of new policy-making logics. In the horsemeat e-newsletter, *foodwatch* introduced a new policy suggestion – calling for the application of criminal liability laws to retailers. The strategy of introducing a new policy-making logic bolstered *foodwatch*'s self-styling as a trustworthy expert entity – by contrast to the government, whose interests, as the e-newsletter reminded readers, lie with corporations, not with consumers.

How does *foodwatch* gain legitimacy? As described on the *foodwatch* website, *foodwatch* draws on external experts such as food technologists, chemists, medical practitioners, lawyers, nutrition scientists, journalists, and economists who are sympathetic to *foodwatch*'s aims.¹³ Thus, *foodwatch* forms collaborative networks with a range of different experts on an issue-by-issue basis. Based on these collaborative networks, *foodwatch* develops and proposes tangible suggestions to regulate food products, food advertising, food producers and retailers. *Foodwatch* further strengthens its status as independent expert by denouncing any ties to (and influence by) corporate, state or supra-national institutions. By clearly demarcating the boundary from these actors and by selectively engaging with external experts, *foodwatch* forms an ethno-epistemic assemblage that enhances its credibility and influence in public debates on food.

This ethno-epistemic assemblage, however, also includes consumers. As discussed above, *foodwatch* strategically uses ICTs to facilitate consumers' 'voting', 'liking', 'signing' and 'sharing' of particular food issues. We argue that *foodwatch* creates a digital space of invited participation that channels the otherwise 'invisible', individual politics of food consumption (Blue, 2010) into the visible realms of civic engagement (voting, protesting and lobbying), whilst also making the traditionally behind-the-scenes elements of civic engagement (e.g. voting) immediately public, via shares and likes.

The constitution of issue publics is supported by *foodwatch*'s affective rhetoric in which the organisation presents itself as both part of and representative of the consumer constituency. The website and e-newsletter texts, redolent with outrage, frustration, anger and disbelief, create an affective atmosphere that mobilises issue-publics to assemble and act. The formation of such issue-publics or 'networked public formations that are mobilized and connected or disconnected through expressions of sentiment' through online media has recently been described as the enactment of 'affective publics' (Papacharissi, 2015, p. 125). Affective publics form an important part of the ethno-epistemic assemblage assisting in co-constituting *foodwatch*'s 'networked expertise', that is, a '... collective form of expertise in public controversy contexts ...' built on '... heterogeneous alliances between different kinds of experts and citizens' (Allgaier, 2012, p. 301).

6. Governance by campaign

Foodwatch uses online campaigns to appeal to consumers' civic duties and orient consumers toward a politically motivated engagement with food. We argue that *foodwatch*'s mode of campaign-centred communication sparks particular food-issue publics into being, i.e., consumers who decide to support a particular *foodwatch* campaign by sharing information via email, Facebook or Twitter, signing a petition or becoming a paying member. This approach to food advocacy, which we have termed 'governance by campaign,' exemplifies the informational turn in food politics and the proliferation of informational governance mechanisms more generally (Mol, 2006). Food-related information, its production, distribution, uptake and use, is key to *foodwatch*'s capacity to transform food policy. ICTs, as Mol points out, offer 'enhanced possibilities and capacities of [...] information collection, processing, transmission, and use; the increase in the numbers of people and institutions having access to

and making use of the information; and the time- space compressing of information flows in a globalised world order' (2006, p. 501).

Our analysis shows how *foodwatch* adheres to a 'logic of collective action' in contrast to other forms of action networks based on a 'logic of connective action' (Bennett & Segerberg, 2012). This is evident in the strong organisational coordination of action, and in the 'use [of] digital media and social technologies more as means of mobilizing and managing participation and coordinating goals, rather than inviting personalized interpretations of problems and self-organization of action' (Bennett & Segerberg, 2012, p. 755). In doing so, *foodwatch* channels 'atomised' consumers' engagement with food issues to advocate for a new politics of food governance on behalf of consumers. As our analysis suggests, the engagement of consumers' engagement is pre-structured by the formats of participation suggested by *foodwatch*. The organisation makes limited use of interactive tools to foster exchange with or feedback from consumers on its website. The ability of consumers to interact with the organisation is limited to the posting of comments on the organisation's Facebook page or the sharing of its tweets, narrow forms of communication that would nevertheless warrant further research.

What we find particularly interesting in this case is that *foodwatch's* adherence to a logic of collective action goes hand in hand with a strong use of digital media. While it is often argued that these media favour 'co-production and co-distribution based on personalised expression' (Bennett & Segerberg, 2012, p. 753), *foodwatch* offers an example of internet-based activism whose mobilizing power lies in the ability to produce large aggregations of de-personalized engagement. The participation formats suggested by the organisation serve to channel individual concerns through clearly pre-packaged templates of action. Consumers may personalise prescribed actions (e.g., letter-writing templates) when sharing them through their social media accounts but the growth of *foodwatch* and its influence in food debates hinges on

repetitive, quantifiable actions (e.g., likes, votes, and signed protest letters), rather than personalized consumer action.

The emphasis on quantifiable action has implications for the kinds of co-production that *foodwatch* employs in its governance by campaign approach. Although *foodwatch* depends on its consumer supporters, the form of public involvement initiated via *foodwatch* is constrained by the organisation's issue definition. Since the constitution of issues is closely related to the types of publics that might eventually emerge, this pre-definition of issues means a pre-definition of (relevant) publics, and not all consumers can (afford to) engage with the food issues *foodwatch* pre-defines. This begs the question: to what extent are consumers strategically mobilised by the organisation rather than empowered? This question is particularly pertinent when the rise of new sources of expertise depends on the production of public mistrust towards democratically elected representatives, and the channelling of this mistrust to strengthen an organisation with little public accountability.

We suggest that *foodwatch* has been successful in mobilising consumers in order for it to become an influential stakeholder in the German food policy arena (cf. Hilton, McKay, Crowson, & Mouhot, 2013). It is difficult to judge, however, to what extent consumers have benefited from the emergence of such a new expert organisation. *Foodwatch's* mode of governance solicits public support and effectively leverages that support to become a relevant a spokesperson and stakeholder in the German food governance arena. Hilton et al.'s (2013) study of the development of NGOs in Britain suggests that relationships between British publics and NGOs were ultimately forged through vectors of support, wherein NGOs were cast as holding the authority to act, rather than through citizens' political participation. *Foodwatch*, however, claims both to represent the public and to be part of the public, discursively blurring the boundary between citizenry and NGOs.

Our analysis has focused in particular on *foodwatch*'s practices of mobilisation through the co-constitution of food issues, publics and related expertise via digital media. Further analysis is required to understand how the organisation represents consumers in its activities within the German and European food policy debates and how supporters can or cannot provide feedback, suggest topics or actions to the organisation. Our research highlights the importance of attending to the strategies of gaining access to ethno-epistemic assemblages in hybrid forums, as well as to the makings of expertise in these forums, through varying mobilisations of food, consumers and the public good.

Acknowledgments

The authors would like to thank the two anonymous reviewers for their insightful comments on this manuscript. Earlier versions of this manuscript were presented at the 'Food Systems Advocacy: From Platforms to Policy' workshop (St Cross College, Oxford, June 2015), the panel on 'Re-assembling the public? From collective action to invited participation' (Congress of the Swiss Sociological Association, University of Lausanne, June 2015), and at the 'Institute of Sociology seminar series' (University of St.Gallen, October 2015), and the authors are grateful to the scholars who attended these presentations for their helpful questions and comments. Thanks also go out to Caspar Hirschi for his generous feedback on an earlier draft.

Endnotes

¹ This conjecture is based on the growing literature on alternative food movements online and our own research in this field. For instance, Adamoli (2012) studied the use of Facebook to advocate food activism offline, and Bos and Owen (2016) show how internet use fosters a 'virtual reconnection' between producers and consumers and supplements offline efforts.

² <http://www.foodwatch.org/en/homepage/> (accessed 22 June 2016).

³ <http://www.foodwatch.org/en/about-foodwatch/financing-foodwatch/> (originally accessed 9 October 2014 but no longer available). Web archived version accessible:

<https://web.archive.org/web/20140724080539/http://www.foodwatch.org/en/about-foodwatch/financing-foodwatch/> (accessed 22 June 2016).

⁴ <http://www.foodwatch.org/de/ueber-foodwatch/finanzen-transparenz/> (in German) (accessed 21 June 2016).

⁵ See footnote 1

⁶ <http://www.foodwatch.org/en/about-foodwatch/> (accessed 22 June 2016).

⁷ https://www.foodwatch.nl/foodwatch/content/english/foodwatch_goes_europe/index_ger.html (accessed 29 October 2014, no longer available online).

⁸ <http://www.foodwatch.org/de/informieren/> (accessed 29 October 2014)

⁹ Irwin and Michael (2003) build on Deleuze and Guattari's (1988) concept of assemblage to foreground the entanglement of laypeople and experts.

¹⁰ <https://web.archive.org/web/20130314031255/http://www.foodwatch.com/> (accessed 30 October 2015).

¹¹ Foodwatch does not provide any information on how financial supporters, subscribers and non-subscribers can influence the organisation's internal decision making procedures, or how they can provide feedback using social media platforms.

¹² The expression of citizens' concerns about particular issues by liking, sharing or online petitioning with the aim to facilitate social change has been critiqued as 'clicktivism' (White, 2010) or 'slacktivism' (Morozov, 2012)

¹³ On the (German) website the organisation states that '[w]hen investigating certain topics we collaborate with a diverse set of external experts such as food technologists, chemists, medical practitioners, lawyers, nutrition scientists, journalist, economists and more' (own translation). <http://www.foodwatch.org/de/ueber-foodwatch/der-verein/team/> (accessed 13 June 2016).

References

- Adamoli, G. (2012). *Social media and social movements: A critical analysis of audience's use of facebook to advocate food activism offline*. (PhD thesis), Florida State University.
- Allgaier, J. (2012). Networking expertise: Discursive coalitions and collaborative networks of experts in a public creationism controversy in the uk. *Public Understanding of Science*, 21(3), 299-313
- Baringhorst, S. (2009). Introduction: Political campaigning in changing media cultures. Typological and historical approaches. In S. Baringhorst, V. Kneip & J. Niesyto (Eds.), *Political campaigning on the web* (pp. 9-30). Bielefeld: transcript.
- Baringhorst, S., Kneip, V., & Niesyto, J. (Eds.). (2009). *Political campaigning on the web*. Bielefeld: transcript.
- Bennett, W. L., & Segerberg, A. (2011). Digital media and the personalization of collective action: Social technology and the organization of protests against the global economic crisis. *Information, Communication & Society*, 14(6), 770-799

- Bennett, W. L., & Segerberg, A. (2012). The logic of connective action: Digital media and the personalization of contentious politics. *Information, Communication & Society*, 15(5), 739-768
- Blue, G. (2010). Food, publics, science. *Public Understanding of Science*, 19(2), 147-154
- Bos, E., & Owen, L. (2016). Virtual reconnection: The online spaces of alternative food networks in England. *Journal of Rural Studies*, 45, 1-14
- Callon, M. (1999). The role of lay people in the production and dissemination of scientific knowledge. *Science, Technology and Society*, 4(1), 81-94
- Callon, M., Lascoumes, P., & Barthe, Y. (2011). *Acting in an uncertain world: An essay on technical democracy*. Cambridge, MA: MIT Press.
- Counihan, C., & Siniscalchi, V. (Eds.). (2014). *Food activism: Agency, democracy and economy*. London: Bloomsbury.
- Deleuze, G., & Guattari, F. (1988). *A thousand plateaus: Capitalism and schizophrenia*. London: Athlone Press.
- Eaton, M. (2010). Manufacturing community in an online activist organization. *Information, Communication & Society*, 13(2), 174-192
- Eli, K., Dolan, C., Schneider, T., & Ulijaszek, S. (2016). Mobile activism, material imaginings, and the ethics of the edible: Framing political engagement through the boycott app. *Geoforum*, 74, 63-73
- Eli, K., McLennan, A. K., & Schneider, T. (2015). Configuring relations of care in an online consumer protection organization. In E.-J. Abbots, A. Lavis & L. Attala (Eds.), *Careful eating: Bodies, food and care* (pp. 173-193). Surrey: Ashgate.
- Frohlich, X. (2017). The informational turn in food politics: The US FDA's nutrition label as information infrastructure. *Social Studies of Science*, 145-171
- Goodman, D., DuPuis, M. E., & Goodman, M. K. (Eds.). (2014). *Alternative food networks: Knowledge, practice, and politics*. London: Routledge.
- Grasseni, C. (2013). *Beyond alternative food networks: Italy's solidarity purchase groups*. London: Bloomsbury.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Thousand Oaks, CA: Sage.
- Guthman, J. (2014). *Agrarian dreams: The paradox of organic farming in California* (2nd ed.). Oakland, California: University of California Press.

- Hilgartner, S. (2000). *Science on stage. Expert advice as public drama*. Stanford, CA: Standford University Press.
- Hilton, M., McKay, J., Crowson, N., & Mouhot, J.-F. (2013). *The politics of expertise: How ngos shaped modern britain*. Oxford: Oxford University Press.
- Irwin, A., & Michael, M. (2003). *Science, social theory and public knowledge*. Maidenhead: Open University Press.
- Jasanoff, S. (2005). *Designs on nature: Science and democracy in europe and the united states*. Princeton, N.J.: Princeton University Press.
- Jasanoff, S. (2014). A mirror for science. *Public Understanding of Science*, 23(1), 21-26
- Lamb, B. (2011). *Good guide to campaigning and influencing* (3rd ed.). London: National Council for Voluntary Organisations (NCVO).
- Lewis, T., & Potter, E. (Eds.). (2011). *Ethical consumption: A critical introduction*. London: Routledge.
- Lezaun, J., & Soneryd, L. (2007). Consulting citizens: Technologies of elicitation and the mobility of publics. *Public Understanding of Science*, 16(3), 279-297
- Lupton, D. (forthcoming). Cooking, eating, uploading: Digital food cultures. In K. LeBesco & P. Naccarato (Eds.), *The handbook of food and popular culture*. London: Bloomsbury.
- Marres, N. (2007). The issues deserve more credit: Pragmatist contributions to the study of public involvement in controversy. *Social Studies of Science*, 37(5), 759-780
- Michael, M. (1998). Between citizen and consumer: Multiplying the meanings of the "public understanding of science". *Public Understanding of Science*, 7(4), 313-327
- Miles, M., & Huberman, M. (2005). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks: Sage.
- Miller, C. A. (2008). Civic epistemologies: Consituting knowledge and order in political commuities. *Sociology Compass*, 2(6), 1896-1919
- Miltener, P., Maier, D., Pfetsch, B., & Waldherr, A. (2013). Online networks of civil society actors as an indicator for politicization? A hyberlink analysis on the food sfety issue in germany. *Catalan Journal of Communication & Cultural Studies*, 5(2), 201-220
- Mol, A. P. J. (2006). Environmental governance in the information age: The emergence of informational governance. *Environment and Planning C: Politics and Space*, 24(4), 497-514
- Morozov, E. (2012). *Net delusion: The dark side of internet freedom*. New York, NY: Public Affairs.

- Papacharissi, Z. (2015). *Affective publics: Sentiment, technology and politics*. Oxford: Oxford University Press.
- Parthasarathy, S. (2010). Breaking the expertise barrier: Understanding activist strategies in science and technology policy domains. *Science and Public Policy*, 37(5), 355-367
- Sannazzaro, J. (2016). Citizen cartography, strategies of resistance to established knowledge and collective forms of knowledge building. *Public Understanding of Science*, 25(3), 346-360
- Smith, D. (1978). K is mentally ill: The anatomy of a factual account. *Sociology*, 12(1), 23-53
- Smith, D. (2001). Texts and the ontology of organizations and institutions. *Culture and Organization*, 7(2), 159-198
- Stilgoe, J., Lock, S. J., & Wilsdon, J. (2014). Why should we promote public engagement with science? *Public Understanding of Science*, 23(1), 4-15
- White, M. (2010, 12 August). Clicktivism is ruining leftist activism, *Guardian*. Retrieved from <http://www.theguardian.com/commentisfree/2010/aug/12/clicktivism-ruining-leftist-activism>
- Wynne, B. (1995). Public understanding of science. In S. Jasanoff, G. E. Markle, J. C. Petersen & T. J. Pinch (Eds.), *Handbook of science and technology studies* (pp. 361-389). London: Sage.