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## Smartphone crises and adjustments in a virtual P3 community – doing sustainability oriented smartphone consumption

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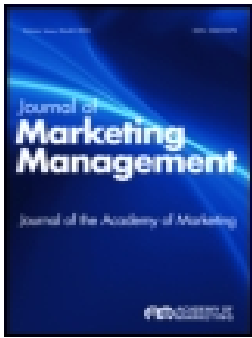
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# Smartphone crises and adjustments in a virtual P3 community – *doing* sustainability oriented smartphone consumption

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## ABSTRACT

Sustainability marketing research on collective consumption practices has often examined on-site actions, leaving aside online activity within brand communities. This study focuses on the online practices of communities to explain on-site sustainable practices. Online communities, which address global sustainability issues in the market, have been considered platforms for ethical consumerism for some time, yet we lack an understanding of how consumer discourse translates into practice. The research adds to the literature on online community practices by grounding it in on-site practices. The notion of community practices, which are guiding participants to make adjustments towards sustainable practices, holds potential for transformations towards sustainability. The practical implications of the research are laid out in the concluding section.

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Sustainability; smartphones; collective consumption; practice theory; online community; netnography

## Introduction

Community has become an add-on to nearly every product marketed through social media. At the behest of the marketer, communities appear to mushroom on the Internet. Similarly, consumers possess ease of access to resources and are known to make accusations about corporations if they find their conduct invasive or unethical (Kozinets & Handelman, 2004; Lyon & Montgomery, 2013). The growth of social media is closely tied to the spread of information and communication technologies (ICTs), with users remaining online for long stretches of the day and increasingly integrating smartphones into daily practices. Among ICTs, smartphones in particular are widely used all over the world (Bento, 2016), creating considerable challenges for environmental sustainability. The energy consumption spurred by the very use of ICTs leads to carbon emissions (Lambert et al., 2012), and brands' short product life cycles lead to increasing material demands (UNEP, 2013) during the production of ICTs that involve scarce natural resources (Ali, 2014), including conflict minerals (Osburg, 2016). Furthermore, working conditions during resource extraction and manufacturing in the

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Global South have a track record of a lack of social sustainability (Litzinger, 2013; Reardon, 2012). These distant crises begin to have effects in consumers' ongoing lives (Schatzki, 2016), potentially amounting to crises of conscience and the questioning of the consumerist lifestyle dominant in the European marketplace. Gradually, sustainability marketing research has considered the increasing use of ICTs (Lim, 2016). During the last few decades, marketing practices have put forth online communities as ideological devices (Zwick & Bradshaw, 2016) that introduce meaning into the space between consumers and market-mediated goods. This instrumental use of communities parallels considerations within sustainability marketing that seek to foster consumer education in favour of sustainable practices (Peattie & Peattie, 2009). This article furthers the sustainability marketing research agenda to explain how social media communities can foster more sustainable ICT practices.

Research on sustainable consumption has primarily focused on the needs, choices and behaviours of individuals (McDonagh & Prothero, 2014). Earlier reviews of consumption research in sustainability marketing have held that consumer intentions towards sustainability are often measured as individual traits (Kilbourne & Beckmann, 1998). Prior research has noted that the complexity surrounding consumption has much to do with constraints that arise from everyday life conduct (Røpke, 2001). In such a perspective, consumption occurs as the result of different activities in everyday life (Shove, 2003), yet there is a lack of understanding of how the social embeddedness of everyday life relates to community. In marketing, community-based experiences online have been found to add to consumers' pure use value of products and services (Cova, 1997). Consumption communities are defined as 'collective identifications grounded in shared, beliefs, meanings, mythologies, rituals, social practices and status systems' (Arnould & Thompson, 2005, p. 869). They may not always be integrated within brands, yet individual participation in online communities fulfils hedonic motives (Church, Thambusamy, & Nemati, 2017), creates value for consumers (Schau, Muñiz, & Arnould, 2009) and fosters social capital (Mathwick, Wiertz, & De Ruyter, 2008; Onyx & Bullen, 2000; Wasko & Faraj, 2005).

In studies of communities online, there has been growing interest in community as a critical space for 'enabling consumer-to-consumer sharing of information that they cannot access via the market' (Stokburger-Sauer & Wiertz, 2015, p. 237). In such a perspective, community membership is seen as a path taken to bring about individual and societal well-being (Stewart Loane, Webster, & D'Alessandro, 2014). Online communities that are not geographically bound appear to be a suitable vehicle for the diffusion of sustainable practices (Hadley & Cheetham, 2015). Given that individuals draw benefits from social integration and the pursuit of communal ideals, communities appear capable of instigating sustainable micro-practices that can create paths for more sustainable societies. A greater number of consumers could be reached through communities online, thus allowing sustainability marketing research to increase its reach (Lim, 2016).

However, the link between community and the individual performance of practices has remained sketchy (Dreier, 1999). In the broader marketing and consumer research field, online communities are often conceptualised as a discrete world of their own, bypassing participants' involvement in everyday action fields. The focus of studies along the lines of Schau, Muñiz Jr. and Arnould (2009) is on the

conventions of practices across communities helping practitioners to manage engagements of consumers with each other and with the brand, irrespective of the object of consumption (Hartmann, Wiertz, & Arnould, 2015; Stokburger-Sauer & Wiertz, 2015). These studies have restricted their focus to study discourse within online communities (Hakala, Niemi, & Kohtamäki, 2017; Hartmann et al., 2015). These advances are valuable because often discourse is found to legitimise practices, and practices materialise through discourse (Gopaldas, 2014). A few studies, e.g. Rokka and Moisander (2009), have increased knowledge about how community can guide everyday sustainable practices. This article builds on the discourse of online community practices using it as a lens to research everyday sustainable practices that users report. This perspective adds a more nuanced understanding of online communities within sustainability marketing research. To attain social change, 'community has been increasingly invoked as one of the keys to building new social structures that are ecologically sustainable' (Kozinets, Belz, & McDonagh, 2012, p. 208). Kozinets et al. (2012) introduced a typology of online social change communities (OSCCs), including locally based, support-based and issue-based online groups. The first type of online community ties in with geographically bound local communities, when social media is used as a context to coordinate activities for the benefit of consumers at specific locations. Both the support-based and issue-based OSCCs use social media as 'sites of informal consumer education' (Sandlin, 2007, p. 288). In addition to social support (Stewart Loane et al., 2014), these hubs serve to share information about suitable and unsuitable views on consumption and practices (McCarthy-Latimer & Kendrick Jr, 2016; Subrahmanyam & Šmahel, 2011). Finally, issue-based OSCCs share information about the negative externalities of consumption (Luck & Ginanti, 2013). Content in these contexts is spiralled by 'social marketers [...] creating ads, videos for the internet, and campaigns to drive awareness about issues' (Assadourian, 2010, p. 20).

The ongoing consumer collaboration within such social change communities can be characterised by altruistic and utopian motives, which boil down to concrete actions to assist each other in solving problems (Cova & White, 2010; Mathwick et al., 2008). These forms of online communities are capable of generating collaborative wisdom that follows a clear teleoaffective trajectory (Kozinets, Hemetsberger, & Schau, 2008).

Marketing and consumer research often implies that community contexts embed specific practices. Such studies increasingly feature social practice theory approaches to consumption, be they discursive (Hartmann et al., 2015) or non-discursive (Molander, 2017; Murphy & Patterson, 2011). However, most studies stop short of methodologically distinguishing discursive practices online from non-discursive everyday practices. Our understanding about community stands to benefit from praxeological concepts that integrate online practices with the process by which artefacts and practices enter consumers' lives. Also, this provides the opportunity for marketing and consumer research to go beyond considering sustainability-oriented consumption primarily through the attitudes they express. To leverage the merits of online communities, as well as to account for everyday life priorities, a conceptual grasp of sustainable practices is needed so that knowledge in the field of online communities can be advanced. In this article, social practice theory approaches to consumption are operationalised as an *enabling theory* for the empirical research design

(Figueiredo, Gopaladas, & Fischer, 2017). Through this procedure, the empirical case contributes a more nuanced understanding of brand community practices. This 'enfolded theorizing' entails that the literature review and the enabling theory are identical (Figueiredo et al., 2017, p. 303), as presented in the following conceptual framework. This prepares the ground to understand what it means to practise sustainability-oriented smartphone consumption. The article proceeds with a case study on *doing* sustainability-oriented smartphone consumption in a peer-to-peer problem-solving (P3) brand community. In the 'Discussion' section, broader marketing implications for fostering transformation towards sustainable smartphone practices are considered.

## Conceptual approach

Social practice theory is a perspective that considers sociality as it unfolds in human practices (Reckwitz, 2002; Schatzki, 1996). Practices constitute a nexus of doings and sayings, which indicates that they are linked in a certain manner (Schatzki, 1996, p. 89). They are formed and sustained by collective elements, to which several participants to a practice may contribute. Practices are open to adjustments (Gram-Hanssen, 2011; Schatzki, 2016); here, social transformations can be explained, and it therefore appears to be a suitable approach for the field of sustainability marketing research. OSCCs (Kozinets et al., 2012), as well as brand communities, have in common that they revolve around sharing 'discursive how-to-consume information' (Schau et al., 2009, p. 39). To ascertain how changes in everyday practices occur, a conception of agency is needed. In a practice-theoretical view, social change is not considered to be an outcome of agents' cognitive structures (Reckwitz, 2002). Moreover, it is not caused by societal structures (Shove, Pantzar, & Watson, 2012). Instead, change is enacted within bundles of practices and material arrangements (Schatzki, 2016). Since agency is enmeshed in practice, the potential for social change depends on participants' skilful performance making 'each present activity [...] potentially a new start, potentially itself a change or the beginning of change' (Schatzki, 2014, p. 17).

Consumer research on online communities has been criticised for its undynamic conceptualisation of the 'interconnections between online and on-site space' (Cappellini & Yen, 2016, p. 1280). In netnographic research, it is considered common wisdom that 'the virtual is no longer a partial piece of a wider reality [...] Instead, it is an entire slice of reality-in-itself' (Kozinets, 2015, p. 69). If this definition holds, then a coherent operationalisation of the interconnection between online and on-site practice is needed. In this article, online practices refer to discursive practices, while the term everyday practice will be reserved for mundane use practices involving technology, adhering to a conceptualisation of consumption through use (Warde, 2017). From this point on, the theoretical framing leads towards an empirical research design (Gherardi, 2016, p. 683). Earlier research has identified four elements that are relevant and appropriate for an empirical study involving practices that are highly integrated with technological systems (Gram-Hanssen, 2011). Thus, research on online and everyday practices will explore these elements, which hold practices together. In other words, social practices must be grounded in data. Reducing practice to one element alone would be an excessive simplification. Drawing on work in sociology and marketing, these four elements are extended and rearranged to suit the requirements of the research objective, i.e. to account for both everyday practices and community practices as they are enacted online:

- (1) Know-how and embodied habits;
- (2) Institutionalised knowledge and explicit rules;
- (3) Engagements; and
- (4) Technologies.

'Know-how' holds practices together in the sense that it is embodied by participants to a practice and is also referred to as an understanding of appropriate doings and sayings required of the practice (Schatzki, 1996, p. 89). Practice theories have emphasised 'context-specificity and the importance of situations' (Warde, 2017, p. 213), since individuals' actions and what they want are affected by circumstances (Dreier, 1999; Gherardi, 2016). Often, this element is a tacit aspect of knowing what is to be done in certain situations – also understood as the *situated* activity of 'knowing in practice' (Gherardi, 2016, p. 686). Therefore, consumer research on the practices of community must consider 'situatedness seriously' (Woermann, 2017, p. 157). However, the level of know-how and embodied habits (Schatzki, 1996) varies across participants and persons with prior careers within the practice (Warde, 2017, p. 217). For example, smartphone practices with a problematic environmental footprint might result from un-reflected embodied habits.

In group contexts, participants' idiosyncratic understandings then can become collectively accredited conventions (Warde, 2017, p. 196). Knowing and doing are creatively entangled to display 'knowing in practice as a "doing while inventing the way of doing"' (Gherardi, 2016, p. 680). Appreciation through fellow participants granted, this knowledge then can become part of the next element of a practice – the commonly accredited conventions. Expert participants who aim to solve any problem surrounding the function of the smartphone often provide impulses for the development of practices. Here, the role of individuals is most explicitly concerned:

As carriers of practices, they [agents] are neither autonomous nor the judgmental dopes who conform to norms: They understand the world and themselves, and use know-how and motivational knowledge, according to the particular practice. There is a very precise place for the "individual" – as distinguished from the agent [...]: As there are diverse social practices and as every agent carries out a multitude of different social practices, the individual is the unique crossing point of practices, of bodily-mental routines. (Reckwitz, 2002, p. 256)

In studies of collective consumption, two elements that hold practices together: (1) know-how and embodied habit and (2) institutionalised knowledge and explicit rules resurface as the thematic practice category of *brand use* (Schau et al., 2009). In the article by Schau, Muñoz Jr. and Arnould, brand and product/technology are used synonymously; here, we refer to technology use practices that are concerned with the use of smartphones and accessory materials. The use practices consist of grooming, customising and commoditising (Schau et al., 2009). These community practices help us to understand how the smartphone as an object of a practice facilitates the release of individual participants' creativity and introduces it to the collective realm of accredited conventions.

In the field of sustainable practices, institutionalised rules can encompass technical knowledge (Gram-Hanssen, 2011) or conventions considered to be stable across participants. Institutionalised knowledge can be formulated as principles and instructions, for example, as it becomes relevant in P3 contexts. The degree to which any performance of



a practice can be considered to display competence boils down to the question of whether conventions of a social context have been adequately applied (Warde, 2017).

The practice element of engagements orients locally situated conventions within practices (Warde, 2017). Engagements can account for shifts in the performance of practices, for example, different rationales and meanings might lead to new orientations that drive involvement in activities (Gram-Hanssen, 2011, p. 72). Such engagements help to transform unreflecting actions, the so-called embodied habits. Engagement emphasises the appropriate rules or conventions in the performance of practices within a situated context (Warde, 2017). Engagements that guide actions are termed teleoaffective structures, giving rise to groups of activities to form projects, which are understood as combinations of tasks (Schatzki, 2002, pp. 73–74). The engagement element of a practice can be inferred by careful scrutiny of the interactions between participants and the meanings that they attach to their actions (Halkier & Jensen, 2011).

In the group context of online communities, many postings refer to documenting the engagement with a focal activity or technology in some fashion. In studies of collective consumption behaviour, community engagement practices refer to communicative performances, which reinforce community members' engagement with the activity or material object (Schau et al., 2009). In a context filled with engagement, 'people come to an understanding of what is required by the practice and their role within it' (Warde, 2005, p. 148). Upon gaining an understanding of local standards of practice, participants make known their individual performances 'made with respect to behaving just sufficiently distinctively to assert individuality without offending collective norms' (Warde, 2017, p. 217).

The practice element of engagements is linked to another community practice from studies on collective consumption: 'evangelizing'<sup>1</sup> (Schau et al., 2009, p. 34). In marketing and consumer research, evangelising is usually connoted by enthusiasts who spread the word about the advantages of using one brand over another (Muñiz, Albert, & Schau, 2007, 2005).

In a sustainability-oriented context, evangelising can be conducted in favour of projects with which the participants are emotionally involved. Engagement with ideals, meanings and cognitive orientations, for example, can involve evangelising for a set of practices directed at reducing energy consumption in households (Gram-Hanssen, 2011). Given that a sufficient degree of commitment to the engagements exists, practices of a locally situated context can lead to the initiation of outsiders to the practice–arrangement bundle. Brands or material artefacts, such as cars, cameras or ICTs, can become highly emblematic of a set of practices (Schau et al., 2009). Therefore, the practice of evangelising belongs to the practice element of engagements since it is characteristically directed at engaging others to join in performances of practices.

The practice element of 'technologies' or 'material arrangements' presents participants to a practice with affordances in the guise of products and product–service infrastructures. Here, the 'founding presence of nonhumans in human life' (Schatzki, 2001, p. 19) is emphasised, referring to the potential of artefacts to trigger transformations of practices (Engeström & Blackler, 2005). Technologies or artefacts, in general, must be understood for their functions in constituting practices (Warde, 2017, p. 91); as objects of activity, they are 'given; [...] socially constructed; [...] contested; [...] and emergent' (Blackler & Regan, 2009, p. 164) concurrently.

In summary, individuals are carriers of a multitude of different practices. The conventions of practice, i.e. the doings, sayings and material arrangements, are linked in a certain manner that provides most of the adjustments performed by individuals (Schatzki, 2016, p. 30). Situated action (Gherardi, 2016) and material arrangements provide a spectrum within which practices can be adjusted. Human actions and material arrangements are, in this sense, deeply entwined in processes of mutual, continuous shaping (Winance, 2006). For a transformation of practices to take hold (Warde, 2017), people must be *engaged* to participate in sustainable practices. Specific meanings associated with end-task-action combinations (Schatzki, 2016) can foster a certain way of relating to material arrangements, originating in face-to-face encounters (Gram-Hanssen, 2011, p. 70) and online contexts (Chatzidakis & Mitussis, 2007).

P3 platforms are hence considered spaces in which 'situated and repeated actions create a context in which social relations among people, and between people and the material and cultural world, stabilize and become normatively sustained' (Gherardi, 2009, p. 523).

The preceding section has laid out an understanding of social practice. The next section considers how practices of community relate to processes of consumption during the use of technologies. It details the guideposts that are important to understanding the appropriation of practices.

### ***Consumption as appropriation through use***

The analysis of appropriation as the use of goods (Ilmonen, 2004) informs practice theoretical research on consumption (Warde, 2017). Without usage, there would be no consumption. The social embedding of smartphone consumption transpires within practices, i.e. by using the functions of the device. This perspective holds that consumption is a second-order activity vis-à-vis other activities of life conduct (Röpke, 2001; Warde, 2017; p. 78). The basic components of consumption consist of the three processes of acquisition, appropriation and appreciation:

Schematically, acquisition involves exchange (by market and other mechanisms) which supplies the means for personal and household provisioning. Appropriation involves practical activities entailing the use of goods and services for personal and social purposes. Appreciation covers the myriad of processes giving meaning to provision and use. (Warde 2010 in Warde, 2017, p. 8)

*Acquisition* is mentioned only briefly as required in the section introducing the case study. For the process of *appropriation* to succeed, participants' levels of expertise matter, i.e. the level of knowledge and embodied habits that people bring along. People's everyday priorities drive purposeful engagement with a view towards use. The care applied to keep artefacts functioning (Graham & Thrift, 2007), forms part of the appropriation process (Ilmonen, 2004). In consumption communities, practices of appropriation are often publicised through sharing 'discursive how-to-consume information' (Schau et al., 2009, p. 39). Through making known use practices (Harré, 1983) that they have realised in private, participants present their skills or incapacibilities, opening their individual performances to the evaluation of others (Ilmonen, 2004).

The process of *appreciation* gives meaning to goods traded in markets (Epp & Price, 2010) and is increasingly presented in online environments (Arsel & Bean, 2013). Appreciation of others facilitates mental contemplation so that ‘appropriation produces experiences, most intense when worked upon and reflected upon’ (Warde, 2017, p. 77). Both appropriation and appreciation are focused on here because they provide understanding of how use of goods and the meanings attached to them are entangled in dynamics of the everyday.

Consumption then, consisting of acquisition, appropriation and appreciation, occurs through the carrying out of practices (Warde, 2017, p. 61) involving a multitude of interfaces with material arrangements (Schatzki, 2016). Communicative practices of appreciation can strengthen appropriation by increasing attention to consumptive moments (Hartmann et al., 2015), thus encouraging reflection and mental contemplation (Warde, 2017, p. 77). By consuming the online writings of a context filled with engagement, ‘people come to an understanding of what is required by the practice and their role within it’ (Warde, 2005, p. 148). Online communities are sites of the social in which the appreciation of skilled performances, combining practice conventions and artefacts, becomes palpable. Here, artefacts and engagements constitute each other to perform appropriation (Lupton & Noble, 2002). Participants adapt artefacts through use in everyday life, with varying degrees of commitment. Nevertheless, group contexts, such as online communities, serve as a plateau in which the personal performances of practices are set into relation and thus are invariably joined to core assumptions and engagements of shared systems of meaning. Appreciation or disapproval of types of usage requires that institutionalised knowledge and explicit rules be in place. In the absence of clear guideposts that orient action, participants might resort to formulated projects, which give rise to normative tasks that ‘constitute higher-order actions’ (Schatzki, 2002, p. 73). Practices of community provide users with access to conventions on the basis of their participation (Gherardi, 2009, 2016).

After laying out the rigorous methodological understanding of the interconnections between online and everyday practices embedded within a community context, it is now possible to understand the complexity of sustainability-oriented smartphone consumption. Accordingly, this article treats the following research questions:

What types of everyday practices and what types of community practices constitute *doing* sustainability-oriented smartphone consumption?

How can community engagement practices organise sustainability-oriented practices?

## **The case study: *doing* sustainability-oriented smartphone consumption**

### ***A brief description of the netnographic site: the Fairphone (FP) community***

The virtual P3 community examined in this study is concerned with solving problems that arise in relation to use of a single device, the FP brand. This community comes across as a hybrid between pragmatic problem-solving with regard to the device and social interaction with regard to brand-related developments. FP is a pioneering sustainability-oriented brand in the smartphone product category. Initiated in 2010, FP is an issue-based OSCC, in which ‘fairness’ initially was applied mainly to raise awareness and improve the working conditions of blue-collar workers in the Global South through fair

wages (Wernink & Strahl, 2015). Kozinets et al. (2008) conceptualised creative consumer communities online as sources of collective innovation; the FP community displays several traits of this category. An open call invited a crowd, to whom a clear teleoaffective trajectory (Schatzki, 1996) was presented, to bring about more fairness in the consumer electronics industry. The company has generated interest in the marketplace as a vanguard of sustainability in the ICT market through social entrepreneurship (Akemu, Whiteman, & Kennedy, 2016; Johnsen, Olaison, & Sørensen, 2017) as well as for its approach to changing attitudes towards overconsumption (Haucke, 2017). Brand community engagement and use practices (Schau et al., 2009), common among brand admirers, can support participants' skilful practice performance, holding the potential for social change (Schatzki, 2014). In this study, research is driven by the interest to learn how community can foster sustainable practices.

The first-generation product of the brand, the FP 1, entered the market in 2014 and was far from bug free. The problems were openly discussed on the FP forum. Right from the start, the FP could rely on its loyal crowd, among which many provided funding to start the production of the device. Overall, the FP device has been sold 60,000 times to users within the European Union. In 2014, the FP 1 cost 325 € which is slightly less than the average price of a smartphone in the German market, which amounted to 366 € (gfu, 2018). After 1 year on the market, a brand-hosted online platform was launched to facilitate interactions and mutual support among users, which also engendered a range of face-to-face user group meetings and brand fests.

### **Research context and methods**

The netnography on the community support of the FP 1 covers the first 18 months after the *going live* of the P3 community forum. Netnography is a methodology that uses publicly available online information about interactions among users to investigate the culture of consumption communities (Cova, Kozinets, & Shankar, 2011; Kozinets, 2002). Since the research question relates to social practices, online data are conceived of as 'products of participants' (Halkier & Jensen, 2011, p. 109) social performance while interacting with or relating to others. In this manner, these data can be seen as 'expressions of social action' (Halkier & Jensen, 2011, p. 109). In addition, the cognitive dimension of consumer culture (Reckwitz, 2002) is addressed by integrating procedures of naturalistic inquiry (Lincoln & Guba, 1985). By drawing on naturally occurring data (Schatzman & Strauss, 1973), i.e. documented consumer interactions of the online community, this study explores the meanings that community members attach to the normative project of sustainability. The generation of data builds on three distinct perspectives of meaning (Soeffner & Hitzler, 1994, p. 99): (1) meaning that is valid in an intersubjective sense; (2) meaning that bears subjective sense; and (3) meaning that carries an occasional sense and is highly context-specific. In this study, actions and cognitive aspects are grasped as specific, observable aspects of social practices (Reckwitz, 2002). The first layer of meaning is addressed by reconstructing the social actions of participants of the online community. The second layer of meaning is addressed by discerning individual user constructions of sustainability from user postings. The third layer of meaning is attended to through an additional auto-ethnographic perspective that helps to increase empathy with the community practices. To answer the

question of whether participation in community practices can explain sustainable practices, an understanding of the social context's basic configuration (Gram-Hanssen, 2011), of which smartphone practices form a part (Halkier, 2010), is warranted. After 6 months of non-participant observation, the author started using an FP device for a variety of practices therewith acquiring know-how and embodied habits specific to the praxis, while continuing naturalistic observations of the community.

### **Data collection**

Netnographic research with an interdisciplinary focus on cultural practices in consumers' everyday needs requires a peculiar analytic attention (Rokka, 2010). The strand of netnography that grounds itself in digital anthropology is tempted to consider online and on-site action as inseparable (Kozinets, 2015, p. 69). The focus of this study requires the analytical separation of online and everyday practices to understand sustainable practices involving the smartphone. The objective of the first data collection phase was to grant immersion into communal aspects of consumer culture through which practices can be explained. This initial data collection phase was guided by a theoretical sensitivity (Glaser, 1978) towards 'sustainability' and involved the purposeful selection of 58 discussion threads (topics) from approximately 200 topics in the 'Café' section of the FP forum at that time. Themes covered from this manual selection included cultural practices, such as daily routines, and the occupational tasks of smartphone use and troubles, in combination with cognitive aspects or meanings (Lofland, Snow, Anderson, & Lofland, 2006), for example, detailing engagements with other sustainability-oriented ICT devices and conversations related to brand narratives. The selected postings were first subjected to open and then to focused coding (Saldaña, 2016). This step in the research process required 'decisions about which initial codes make the most sense' (Charmaz, 2014, p. 138). The criteria were informed by a practice theoretical perspective, as well as by the three perspectives of meaning from Soeffner and Hitzler (1994) to infer the meanings that users ascribe to their actions. See the left side of Figure 1 for an illustration. This step served the purpose of identifying elements holding practices together, such as engagements or meanings, as well as user know-how. In other words, it asked of the data 'which engagements seem to go together with which procedures?' (Halkier, 2010, p. 42).

The objective of the second data collection phase was to identify the content that related to everyday practices in which the smartphone was used. This second data collection phase was guided more by theoretical considerations drawn from social practice theory approaches to consumption. Building on conceptual framing by Halkier (2010), sustainability-oriented consumption was first imagined (see 'Conceptual approach' section) as an entire praxis of its own. This research task could be posed as a question: If a distinct sustainability-oriented smartphone consumption exists for community members, how does it materialise through online discourse? Following this theorisation, data selection followed the task to probe whether such a distinct form of smartphone consumption could hold water. This content was referred to as 'activities', and this time, the scope of the postings was much broader since a web crawler was used to recover the entire content of the site, which consisted of six different forums. The study restricts its breadth to the readily-available naturally occurring archived content of

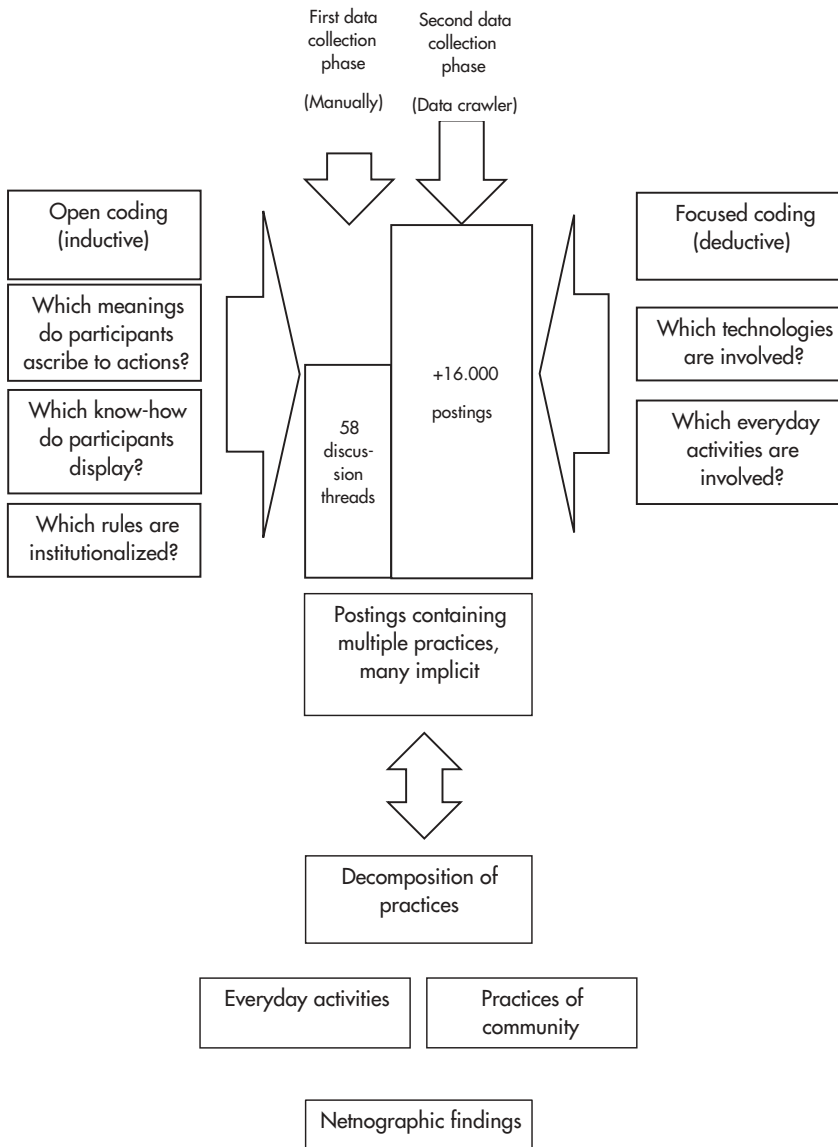


Figure 1. Design of data collection in the P3 community.

the site, which means that researchers refrained from instigating discussion that would increase the postings' quantity or affects. For the period between June 2014 and December 2015, the data acquisition resulted in +16,000 postings.<sup>2</sup> In this period, the categories of the forum were 'Café' (2,747 posts), 'Help' (8,913 posts), 'Meta' (580 posts), 'Repair' (471 posts), 'Roadmap' (850 posts) and 'Software' (2,396 Posts). Of the 2176 users, 1656 (76.1%) were active in the online community during the investigated period for a maximum of 1 month (Meier & Mäschtig, 2016, p. 433). All other users shared in similar amounts between 2 and 16 months (Meier & Mäschtig, 2016). Most of the forum categories (+1,000 postings) treat P3, which will not generate much discussion; this

helps to explain the uneven temporal distribution of user activity. However, functional problems with the device given, even topics with only a few replies, may be highly relevant for users.

Based on a literature review of social practice approaches to consumption, these postings were subjected to provisional coding and focused coding (Saldaña, 2016). These procedures served the purpose of identifying further elements holding practices together, such as technologies, institutionalised knowledge and explicit rules (see 'Conceptual approach' section). Provisional coding is encouraged for inquiries that build on earlier studies (Saldaña, 2016). In this case, a deductive logic was followed to ground the data in the concepts of social practice approaches to consumption (e.g. Gram-Hanssen, 2011). Looking for everyday activities that featured in the reports of the site, 'key words, phrases and concepts that spring to mind in thinking about the area under consideration' (Layder, 1998, p. 31) were used. In this instance, the practice elements of habits, explicit rules, engagements and technologies with regard to problem-solving were of interest. See Figure 1 for an overview of the design of data collection. Subsequently, the items constructed through open coding were revisited, looking for product-related use practices displaying sustainability-oriented engagements. The coding procedures were performed with the support of the computer-assisted qualitative data analysis software MaxQDA12; in addition, within-code coding was performed manually for selected categories to detect emerging cultural themes (Schatzman & Strauss, 1973). In total, the coding procedures generated 687 pages of reporting.

Examples of within-code coding included practices of charging and managing battery power (Svenson, Mäschtig, & Meier, 2018, March). To explore cognitive structures visible in user procedures, all the threads in our data set of +16,000 postings were screened for the terms 'battery', which resulted in 751 hits, and 'energy', which resulted in 54 hits. Together with the related discussion threads, these matches were then exported to a calculation sheet, resulting in 2038 postings. In this sample of the data set, 185 postings were sufficiently detailed, allowing a discussion of sustainability-oriented battery issues, which are presented as smartphone use during travel in the 'Findings' section.

The coding procedures resulted in more than 200 instances of everyday practices. The application of the method of constant comparison (Schatzman & Strauss, 1973) yielded two integrative areas of practice that accommodated all of the everyday practices, consisting of distinct bodily mental activities: 'maintaining social networks' and 'mobile telephony and entertainment during travel'.

By presenting prevalent activities, the 'Findings' section discloses a glimpse of *doing* sustainability-oriented smartphone consumption. As it is common in reconstructive qualitative research, sustainability is defined as 'what is constructed as such among the participants. The constructions [...] among the participants in the empirical study' (Halkier & Jensen, 2011, p. 119). These constructions reflect the conventions of the practices of community online, which then interact with the everyday practices of users. The Findings' section therefore focuses on consumption as consisting of the three steps – acquisition, appropriation and appreciation (Warde, 2017) – by reconstructing the reported use of the smartphone in everyday practices.



## Findings

### *Acquisition of goods and the initiation into practices*

The FP is a brand symbolic of the endeavour to introduce sustainability into the smartphone industry. The community engagement practices described here provide the base for use practices that are peculiar to this brand community. Beliefs that are oriented towards goals and the realisation of projects, tasks and higher purposes, or, in praxeological terms, ‘teleoaffective structures’ (Schatzki, 1996, p. 89), are highly entwined with the brand object. Already ahead of acquisition, the technological object became infused with consumer hopes and ideals (McCracken, 1990) through a brand-initiated crowdfunding campaign that envisioned a more sustainable smartphone industry, giving meaning to the artefact and presenting an engaging means-end relationship. Acquisition was a task necessary to jump-start the entrepreneurial endeavour for more sustainable ICTs.

Studies in material culture refer to the term ‘displaced meaning’ (McCracken, 1990, p. 116) to describe the relations of humans and their cherished objects. ‘Groups make objects the “objective correlative” of ideals that have been transposed to the [...] future. These objects can be [...] the emblem of any group that looks forward to the realization of ideals that are now unfulfilled’ (McCracken, 1990, p. 111).

First-to-market ICT products, which conform to nascent meanings of sustainability in this industry, might win the favour of sustainability supporters, becoming the *objective correlative* of the whole sustainability ideal, irrespective of a binding definition. Appropriation of the FP device makes sustainability tangible and provides a bridge to symbolic-functional notations. How appreciation for a higher purpose resonates with users is described in the following quotes:

I think FP has a much more innocent image than other big ICT companies, and clearly FP owners don’t just want to possess the device but spread the word about important issues as well [author’s note: societal challenges]. (posting)

Too many people I know have iPhones. Every day commuting to university, I see the overpriced hardware from a company supporting child labour and slavery. It is exactly the opposite of what we support here. (posting)

The meanings that users ascribe to the branded object and their actions, e.g. through using it (see Figure 1 on the left-hand side), are inferred from the data. An emergent theme that arose during the interpretive analysis of the data was the belief that ‘the ideal is possible’. This belief is bound up with a goal in which participants are emotionally invested to bring about more sustainability in the smartphone industry. For the members of the brand community, the device represents an objective correlative of the belief that ‘the ideal is possible’.

The next part of the ‘Findings’ section follows an inventory approach (Spradley, 1980) designed to present an overview of the everyday practices that featured in the P3 community conversations. Everyday life practices form the context of the social performance of practices online. Often, these everyday practices do not feature in the online community literature. The normative engagement with sustainability is among the practice conventions of the FP community. This engagement originates in the community context and is enacted by users as an adjustment to (everyday) practices.



### ***Everyday practices involving smartphones – appropriation through brand-specific use practices***

Since human practices are related to material arrangements in endless connections, boundaries are required that stem from the object in focus (Christensen & Røpke, 2010). Of particular relevance for this study are those everyday practices directly involved with the material object of the smartphone. Due to the apps selected (Reyes, 2016), the actual functions of the smartphone vary across users. The degree of smartphone appropriation through use varies depending on participants' degrees of commitment to the practice (Warde, 2017).

#### ***Maintaining social networks***

Making phone calls has never been a perfect experience for me, either with the Fairphone or any other smartphone I owned for that matter. The sensor that should prevent me from "using" the touch screen with my ear has never worked so well. I have cancelled phone calls, activated flight mode or added calendar entries while making calls. I often changed language or time zone settings. It is really annoying, but I learned to live with it. (posting)

Maintaining social networks with physically separated relevant social others lies at the core of smartphone use. People must attend to family members, meet important deadlines and manage emergencies. All of these activities are mediated through the technology of the smartphone. However, the nexus that merges human practices to material arrangements only draws closer into users' grasp when something breaks down (Verbeek, 2010). In such crises in ongoing life (Schatzki, 2016), technology matters greatly, even to novice users. The disconnection of material arrangements (Graham & Thrift, 2007) leads to adjustments and improvisation with the goal of adhering to the objective of everyday life conduct (Schatzki, 2016). Participants in a practice acquire an understanding of what is expected by the logics of the practice (Reckwitz, 2002), lending normative orientation to these adjustments. Smartphone crises give rise to friction between everyday practices and community practices. Given a heightened degree of commitment to community-specific practices, higher-order projects will be further documented by community members through informal manuals that detail exactly how to consume (Schau et al., 2009).

Adjustments become observable as small-scale performances. In principle, gradual adjustments can lead to the transformation of practices 'acting as a continuous feedback loop of experimentation which, through many small increments in practical knowledge, can produce large changes' (Graham & Thrift, 2007, p. 5). In online communities, information is routinely shared; the FP community goes beyond this routine to form a constitutive context in which experimentation with sustainable practices is supported.

In the preceding quote, 'learning to live with it' is a convention of the practice. It is characteristic of the appropriation process of basic users in this community. Users would tolerate bugs in the technology and adapt their practices, even if it involved reorganising their day-to-day routines. The brand's renegade status vis-à-vis competitors allows for sympathy and respect for the brand's ventures.

Hi, I have replaced my display (was cracked), daughterboard (mic was not working) and back cover. It is all working fine except the near field (proximity) sensor: when I call someone or receive a call, the display goes black. I cannot hang up; I have to remove the battery to hang up. (posting)

Removing the battery to hang up is a very basic adjustment that even novice users soon perform habitually. Users endeavour to accomplish adjustments to their everyday practices, benignly neglecting functional problems. Emotionally engaging appreciation provides participants with a considerable degree of endurance in the face of crises. Everyday life conduct, however, limits participants' commitment:

I am tired, I have many other important things to do and deadlines to meet too, and the only thing I should not be worried about is my maybe ethical smartphone. I would like to have my [properly working] phone back. (posting)

In consumers' busy lives, social sustainability is one, but often not the only, priority. This entanglement among consumer beliefs, attitudes and life conduct in consumer research has often been referred to as a gap between intention and action (see, e.g., Moraes, Carrigan, & Szmigin, 2012). Practice theory closes this gap to emphasise the apparent difficulties involved in more sustainable consumption.

I am also unsure whether to buy a new (unfair) phone or to put a lot more effort into solving this problem. Not being able to make calls or use essential functions of my Fairphone makes this whole situation no longer bearable. (posting)

The conventions of the practice require that participants contact support, search the forum, make postings and wait for replies.

I will need to use a smartphone every day [...] if anyone has a solution besides 'buy another smartphone for the time [...] and sell it later', I am listening. (posting)

When users cannot find suitable adjustments to practices with the support of the community, a critical passage during the appropriation process is dawning. An abandonment of the technology is foreshadowed with reference to the acquisition of another (conventional) smartphone brand, which, although not in possession of the distinguishing mark of ethical production, is expected to perform with greater ease. To simply buy another phone brand might appear to be an expectable option, but this action does not conform to the normative logic of the practice. Users are expected to maintain that 'the ideal is possible' and to continue trying to make do with the technology.

### ***Mobile telephony and entertainment during travel***

Travel is a further everyday activity in which smartphones are often involved. The material arrangements that allow for mobile telephony or a stable Internet connection allow users to use microcomputers seamlessly, whether at home, at work or on the go. However, when away from convenient ICT infrastructures or electricity, the functionality of the smartphone becomes crucial (Wiig, 2018). Frequent cross-border travel or excursions to remote areas with no access to the electric grid place different demands on the functions of items within repertoires of practices. In travel, smartphones are used for navigation and entertainment, in addition to the usual information search activity. Many

other practices are co-dependent upon the mobile device, and during travel, there are fewer opportunities to replace the use of a smartphone with a laptop or desktop computer. Growing data traffic routed through smartphones and the adoption of applications relying on the Internet have made practices directed at managing battery technology increasingly important (Horta, Fonseca, Truninger, Nobre, & Correia, 2015).

In this part of the analysis, the inquiry focused on the question of whether reflexivity, which is located at the level of higher-order projects, becomes enacted within procedures of battery power management to form end-task-action combinations.<sup>3</sup> Actions that do not save any energy are relatively prominent in the dataset (54%), as they constitute half of the battery procedures discussed. Many other practices are often co-dependent upon the mobile device, which in earlier studies of mobile communities was summarised as ‘no juice, no use’ (Schau et al., 2009, p. 47). There is less support in favour of sustainability-oriented procedures of battery power management (46%), including procedures that advocate curtailment of usage or the enhancement of energy efficiency. Reflexivity and an orientation towards saving energy are less prominent in the discussion, owing to the disadvantages of unexpectedly facing trouble with the functionality of the device.

The documentation of adjustments that serve to keep the functionality of the device intact are typical of grooming practices, which follow a community’s distinct trajectory (Schau et al., 2009, pp. 37–38):

Even a good smartphone will eat up its battery in a couple of days, and when I am out and about in the world, it is so useful to be able to swap the battery out for a fully charged one.  
(posting)

Procedures of curtailment serve as examples of idiosyncratic adjustments to the re-  
pertoires of practices involved in managing battery power. Some users go to some pain to avoid buying an extra cable; for example, one user posted a message on the FP forum asking for advice on the whereabouts of other FP users in the vicinity:

Is there anyone else around in Paris who could lend use of battery? (posting)

The community serves as a resource in order to delay unnecessary resource consumption. As highlighted in earlier studies of online communities (Mathwick et al., 2008), users are drawing on the cultural norm of generalised reciprocity (Onyx & Bullen, 2000). This convention holds that users provide support to someone without receiving immediate help in return; users then expect this support from anybody in the community as well. The convention of the community *to share advice* in this case is leveraged to avoid excess resource consumption and thus to facilitate sustainable practices. Adjustments within bundles of practices and material arrangements are usually made through the acquisition of accessory materials. The curtailment measure that seeks to borrow battery power instead of buying battery charger leads is a specific type of performance to make adjustments towards the normative trajectory of sustainability, which is exactly how demands for adjustments, prior experience and the logic of the social context go together to accomplish the performance of the practice (Gherardi, 2016, pp. 689–690).

Conventions of the practice transmit emotional engagements to participants. Due to the indeterminacy of life and the openness of practices (Schatzki, 2016), participants are required to gauge what the practice requires of them. ‘Practices have a trajectory or path

of development, a history' (Warde, 2005, p. 139), which enthusiastic participants seek to complete with performances of their own given they are committed to them (Warde, 2005). The 'tacit cultural templates for understanding and action' (Schau et al., 2009, p. 31) serve as a normative reference for conduct. In the process of performing alignments of their everyday mundane practices with emotional engagements, the community context serves as a resource. Users come up with adjustments that include curtailment measures to save energy, as well as practices that do not save any energy at all (Svenson et al., 2018, March). Individual performances of practices match the engaging mission of more sustainability, while also serving to maintain everyday functionality. In managing battery power, the focus of participants' commitment is directed at two different locales. The acquisition of spare batteries clearly champions the everyday activity in which the smartphone is involved. The curtailment that is involved in doing without the smartphone for some time places the focus on the coherence of sustainable smartphone practices.

In this community context, everyday practices expect improvisation and creativity from participants. The use practice of 'customizing' refers to documenting innovative everyday use practices, which are formalised through their very explication (Schau et al., 2009, p. 39). The cohesion across use practices, their online presentation and the reproduction of innovative use practices by other users resonates with earlier work on collective consumption in a practice theoretical orientation and is considered to be among the social mechanisms driving transformations of praxis. Expert users, who are in possession of greater competence, display a further commitment to the objective of *doing* sustainable smartphone consumption. These users present a further performance of engaging in a mission for more sustainability, even suggesting techniques that enhance energy efficiency.

I am building a solar charger for my phone. I have designed the panel size so that the phone can draw 1.5 A easily [...] My question: Which of these is the charge controller built into the FP, and what are the specs for the built-in charge controller? So far, I can only get it to draw .5 A of current. (posting)

The discussion of the design requirements of a solar charger documents how users extend community use practices to achieve more sustainable everyday routines. Expert users make adjustments that, based on their careers within related practices, lead them to draw on the community to extend the repertoire of practices within battery management and thereby to engage in customising.

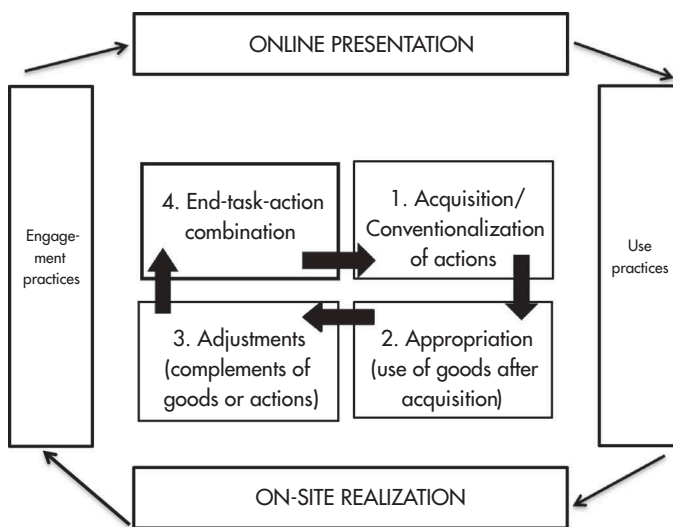
### ***Appreciation in the course of appropriating smartphones through usage***

Practices are known to have a logic (Bourdieu, 1990), conventions (Warde, 2017) and constitutive contexts of their own (Gherardi, 2016). Examples are scant of how exactly scripts of practices (Akrich, 1992) come into effect to implicitly organise the actions of individuals. Skilled practitioners use the constitutive context as a source that aids in expressing forms that match the practice (Gherardi, 2016). Online community contexts help to foster the emergence of sustainable practices, when appreciation is spread during the appropriation of smartphones. Until now, sustainability markers have not been the default settings of most bundles of practices and material arrangements.

Although social practice theory explains human action through involvement in collectives, participants remain in charge of knowing, doing and adjusting. In ethical consumption, *knowing* participants are involved in continual ordering (Gherardi, 2016, p. 691), determining the context that applies. Community is one of several contexts that grounds participants' skills and guideposts *before* sustainable practices transpire, which is how the conventions of a practice come into the world. In the context of the case study, the community rule 'the ideal is possible' opens the way for adjustments towards complements of goods and actions. Everyday practices materialise within online community discourse side by side with sustainability-oriented engagements. For many committed community members, the ongoing task of determining which practice context applies constitutes sustainability-oriented smartphone consumption.

To illustrate the findings of the case study more formally, Figure 2 adapts a circular process of appropriation from Ilmonen (2004), extended through the ideas of Warde (2017), Schatzki (2016), Gherardi (2016) and McCracken (1990). The top of the figure represents public online presentation of consumption stories, and the bottom represents the private performance of consumption, both of which are grounded in mundane everyday use practices. Users participate in engagement practices that share appreciation and add to the meanings associated with the branded object in online presentations.

Actors' everyday adjustments draw on the community as a resource to overcome obstacles to their actions. The engagements that transpire primarily within the online community context provide a normative organisation of practices through which sustainable practices enter the everyday. The cyclical process begins with the acquisition of a smartphone, which symbolises sustainability. With the acquisition of the device, appropriation sets in: the online presentation of the brand narrative gives meaning to the formation of a technology. During the phase of the crowdfunding for the FP 1, the acquisition of the device fulfilled the task of jump-starting the production of material artefacts that serve as a bridge to displaced meaning (McCracken, 1990).



Adapted from Ilmonen (2004, p.44)

**Figure 2.** Practices of community and adjustments to on-site actions.

After delivery of the device, appropriation through everyday use sets in. The P3 community, which is available during appropriation, reports how best to solve difficulties and crises that arise during use. The individual performances of a practice, e.g. managing battery power, can incorporate the conventions that are common in the online community. Whether this happens, or not, depends on participants' degree of commitment to the practice. The sharing of small consumption stories is an act of appreciation, through which meaning towards the trajectory of sustainability is often given. In addition to facilitating the adjustments that follow the advice of acclaimed expert users (Schatzki, 2016), passive or consumptive participation (Hartmann et al., 2015) must also be considered a potential benefit of the community context, which gives way to incremental transformations towards sustainable practices. In the remainder of this section, adjustments and end-task-action combinations are further illustrated to show how community engagement practices online organise sustainability-oriented everyday practices (shown in Figure 2).

Individuals stand in a range of different practice fields, drawing varying levels of commitment and know-how from participants. Material arrangements and the meanings attached to them possess different conventions, depending on the context. Although observations are restricted to only two contexts of the social, it becomes evident that there are a large number of potential adjustments to everyday practice, if community members strive for normative coherence across practices. This fact is particularly evident in the user reflections on double standards as discussed next.

### ***'Double standards' as conventions of two constitutive contexts***

The artefact and the sustainability-oriented understandings attached to it provide 'tacit cultural templates' (Schau et al., 2009, p. 31) that can guide the adjustments that people make within their everyday practices, given a sufficient degree of commitment. In the following posting, the conflicting demands of two practices present friction, much like conflicting logics made explicit:

Got tired of deleting files. The internal storage [author's note: of the FP device] is too small. At the same time, buying a Samsung for a scandisc SD feels like a double standard. (posting)

This posting reveals that the smartphone is a totemic symbol (Durkheim, 1915) in this community, representing a moral obligation (Knorr Cetina, 1997, p. 20) to seek complements of goods that match the symbolic aspects of sustainability, in addition to the functional aspects of material arrangements, which other practice fields demand of participants.

I decided against the smartphone and pro my Nokia for its long lasting battery power, [...] plus, it is not very environmentally friendly to buy a new apparatus when the old one still functions (but I do not abide to that rule when it comes to computers, although, being a gamer, I replace my computers with quicker and bigger ones before they break down). (posting)

As participants in sustainable smartphone practices, users commit themselves to considering socially responsible goods and whether they truly need to buy new electronics in the first place. In the following post, the difficulty inherent in pursuing consistency

across different consumption contexts is considered. The practice convention to boycott goods containing conflict minerals may be traced back to FP's brand story. Complements of actions that extend this convention to all ICTs are a further example of double standards:

I think it's impossible to boycott all electronic devices that contain conflict minerals without propelling yourself into some sort of self-imposed Dark Age. This becomes increasingly difficult if you're also going to boycott products that were produced using machines that contain conflict minerals. (posting)

As participants in, e.g. entertainment practices, users commit themselves to consider performance and functionality, which the conventions of the practice require of participants. The engagement practices of the community then give rise to adjustments, as seen in [Figure 2](#) on the left side at the bottom. Community frames the performance of adjustments within practice–arrangement bundles. To realise mastery of a practice, participants derive tasks from the teleoaffective structures tied to the material artefact; the higher end that they pursue can lead to the performance of further tasks. This may result in the acquisition of further (complements of) goods or curtailments (complements of actions). The findings confirm the operation of the use practices of customising, grooming and commoditising (Schau et al., 2009) within this brand community.

In the example of the smartphone user who is also a gamer, it becomes particularly obvious that the conventions of a sustainability-oriented P3 community compete with the conventions of gaming practices, in which computing power is continuously expanded to satisfy communo-ludic orientations.

### ***Adjustments towards complements of goods***

In social practice terminology, complements of goods are needed because the conventions of the practice require them (Warde, 2017). The following posting documents that participants compete in the escalation of commitment by displaying individual skills in developing complements of sustainable goods. Building on earlier work in consumer engagement (Muñiz & Schau, 2007), participants here consider the distribution of complements of goods as a means to evangelise for sustainability-oriented ICTs:

Another T-shirt? [...] I would be delighted with a cup of fair, organic green Fairphone-branded tea [...] But T-shirts? [...] Ok, ok, if some people want it, you probably should. If so: fair-trade organic cotton, fair production, and find someone who writes a thorough blog entry about it. (posting)

The Diderot effect, originally conceived in connection to material artefacts, holds that goods purchased by participants must match present engagements, avoiding the sense of a mismatch across goods used (McCracken, 1990). New possessions introduced into users' practices can destabilise the perceived coherence of goods in the domain of meaning. The effect is observable in this community context as well. Boldly put, the FP device causes other ICTs to appear symbolically unfit because they are not culturally complementary to the meaning of sustainability. Continually, users share appreciation for the higher order purpose of sustainability. Adjustments within practice–arrangement bundles contain end-task-action combinations that extend the range of symbolical



sustainability. The within-group differences of the community account for disagreements about which course to undertake in the movement for more sustainability in the smartphone market. For example, proponents of a different more *sustainable* smartphone operating system foresee the next adjustments towards sustainability within the material arrangements.

I get the impression that the goals of Fairphone are better aligned with people interested in social and environmental issues than with people who want a completely open and free software platform. (posting)

I have the impression that a lot of people on this forum use the word “fair” in different ways – mostly to post that the Fairphone isn’t fair. (posting)

[Answer:] I believe this is because “fair” can mean many different things. I think the company Fairphone means something like “trying to be better than the average and to become even better”. [...] Of course, they are not perfect, and nobody expects them to be, but by naming problems, you give them the chance to become more ethical, and as I understand the company, that is what they want. (posting)

Until now, the adjustments that followed within this bundle of practice and material arrangement have been examined with a view towards material objects or goods. In the following section, the emergence of adjustments towards sustainable complements of actions is discussed.

### ***Adjustments towards complements of actions***

It is a fact that technology breaks down (Graham & Thrift, 2007). In the electronics industry, cheap smartphones, short product life cycles and the widespread inability of users to perform repairs (Speake & Yangke, 2015) have led to the consumer culture phenomenon of ‘throwawayism’ (Albinsson, Wolf, & Kopf, 2010). The FP brand broadly draws attention to the issue of smartphones’ negative externalities and is capable of generating commitment to unconventional practices:

Me personally, I learned a lot about my phone (and phones in general) through Fairphone. I also changed my behaviour regarding my phone. For the first time, I also intend to really use my phone for a longer period than 2 years. (posting)

To pledge loyalty to the ideals of sustainability-oriented smartphone consumption involves much commitment. To novice users, this *care* for goods is more like *work* than consumption (Ilmonen, 2004). This notion of practices as work extends beyond working around bugs to reboot the *ethical* smartphone. Maintenance practices are a further key phenomenon of this community, which highlights what it means to *perform* sustainability-oriented smartphone consumption. This brand community is a constitutive context with a clear cultural trajectory towards sustainable smartphone practices. At this stage of technological advancement, the shift in use practices from throwawayism to sustainability requires skilled performances. The *practices of community* support consumers, who dare to tackle the problem of negative externalities in the smartphone industry. For this consumer group, social change towards sustainability begins with their own practices.



Participants' performances align everyday practices with normative engagements of the brand community through adjustments towards complements of goods and actions. Community use practices that prescribe optimal ways of consuming feature prominently within the P3 community. The participation in community practices that follow the abounding logic serves to organise sustainability-oriented consumption. Findings further illustrate that practices involving the smartphone are conventionalised to curtail usage. There are also some performances that adjust material arrangements to perform sustainable practices, e.g. to use solar energy to power the battery or to run only free and open software on the device. The accomplishment of these end-task-action combinations promises participants more sustainable consumer–market interaction. To go full circle, in [Figure 2](#), the realm of practices presumes participants' adjustments through either goods or actions. Adjustments towards complements of goods presume the acquisition of further symbolically sustainable goods. Given that adjustments towards complements of actions are collectively accredited, they can lead to the conventionalisation of practices, observable as sustainable everyday practices.

To say that actions become conventionalised ([Figure 2](#)) is to say that meaning is given to adjustments. The 'how to consume' manuals (Schau et al., 2009, p. 31) abounding on the platform possess the potential to generate consumptive moments (Hartmann et al., 2015). Adjustments towards complements of (sustainable) actions occur slowly, and they are susceptible to malfunctions. The cyclic process can continue indefinitely and helps to understand how sustainable practices may spread. Adjustments are carried out under the condition of participants 'knowing in practice' (Gherardi, 2016, p. 685). Proposing conventions by performing sustainability-oriented smartphone consumption can therefore be explained by community engagement and use practices.

## Conclusion and outlook

In marketing scholarship, societal consumption has often been conceptualised as a measure of the individual states of mind of participants, positing consumers as decision makers (Halkier, 2010; Jonge, Fischer, & Trijp, 2014). Everyday life practices often interfere with an orientation towards sustainability. Reviews of the sustainability marketing research literature (McDonagh & Prothero, 2014; Prothero, Dobscha, Freund, Kilbourne, & Luchs, 2011) have repeatedly proposed that the focal construct of sustainable practices is needed to bypass attitude–behaviour gaps (Moraes et al., 2012). This theoretical framing bears methodological implications which have been laid out in the conceptual approach of this article, highlighting the relevant level of analysis for a change towards sustainability. An interpretive approach towards publicly available online discourse provided an opportunity to reconstruct everyday consumption with its conditions, problems and constraints. In matters of consumption, sustainability-oriented engagements have to be *performed* in the everyday to take effect. Furthermore, this study has made online community interactions among consumers tangible, as adjustments within everyday practices. The brand community presented in this study performs tasks of a support-based OSCC (Kozinets et al., 2012) enabling consumers to maintain their ethical claim that 'the ideal is possible'. The engaging discourse in this community materialises as sustainable smartphone practices.

Building on earlier work, this study examined the practices of online communities and extended it to focus on adjustments in the everyday through accessing consumer meanings. The article illustrated how the processes of acquisition, appropriation and appreciation interact to compose the sustainability-oriented consumption of smartphones within an online P3 community, thus answering calls within the field of consumer culture to consider the entanglement of consumption with everyday life. In this study, the integration of consumer research, sociology and anthropology provides a conception of community that encompasses cognitive states of consumers, while taking care to ground it in the everyday accomplishment of actions. The findings show that the Diderot effect (McCracken, 1990), a term known to describe the spiralling consumption of goods and escalating consumerism (Schor, 2006), could be *put to work* in a field appreciative of sustainability. Social media brand communities can foster sustainable practices if the use procedures that they support promise coherence with the engagements that hold together sustainability-oriented practice. As the findings emphasise, the constitutive context of community provides resources so that participants can make adjustments not only towards goods but also towards complements of actions in support of sustainability.

Everyday life must be considered (Christensen & Røpke, 2010) if we are to gain insight into online practices of community (Cappellini & Yen, 2016) and vice versa. Participation in sustainable smartphone practices encourages a considerable number of tasks directed towards the broad objective of sustainability. This sustainable trajectory and the tasks required to pursue it continue evolving as new technologies become available (Seele & Lock, 2017). Given that the individual is the crossing point of manifold practices (Reckwitz, 2002) on-site and online, consumers are likely to find continual adjustment of their practices towards sustainability a very complex matter. The findings contribute insights for marketers who would like to take an involved stance vis-à-vis online communities.

Marketing research has informed corporate practice to help avoid marketing myopia, referring to the initial work of Levitt (1960). Social media is considered an ideal environment for corporations to build brand communities; in addition, this online environment can bring greater sustainability to the market (Lim, 2016). To bypass myopic tendencies, the phenomenon of sustainability-oriented brand communities within social media demands managerial attention across a range of issues. Broadly put, three factors appear important: (1) relationships between corporations and consumers are to be based on integration within brand communities rather than merely on customer retention (Raabe, 2011); (2) there should be replacement of a narrow definition of customer needs with a broader stakeholder orientation that considers peoples' roles within society (Smith, Drumwright, & Gentile, 2010); and (3) a long-term orientation in sustainability marketing would entail exceeding a focus on the socio-environmental attributes of products (Ottman, Stafford, & Hartman, 2006) and clearly presenting customer benefits and values (Peattie & Peattie, 2009) in consumers' everyday lives.

Market-oriented ethnography (Thompson, 1997) and netnography (Kozinets, 2015) call on corporations to acquire an appreciative and attentive stance towards their involvement in social media. Understanding the cultural template of consumer groups and their overarching trajectories forms the base for further interactions. Sensibilities about resource use and preservation of resources, which are observable in online

communities, might well be supported by marketing in a practical manner (Lim, 2016, p. 243). Such an approach ensures that brand meaning remains aligned (Fyrberg & Jürriado, 2009) with customer benefits and values. Brands with a sustainability marketing orientation can capitalise on these insights only when myopic tendencies of the trade are reduced (Fournier & Avery, 2011; Lim, 2016; Raabe, 2011). Discussions in online brand communities already offer a potential source of inspiration for marketing managers. An active participation of brands that integrate consumers within practices that match the community's cultural template is likely to generate additional value (Schau et al., 2009), therewith supporting the objective of sustainability.

In the market for good, fair and clean ICT or so-called *slow* technology (Patrignani & Whitehouse, 2015), there is a dearth of product innovations. Marketers and brand communities who identify with a market culture that appreciates cleaner and socially responsible ICT have a common base for collaboration. Companies can help to institutionalise the principles of the higher-order project of sustainability through integration with online communities displaying actions and goods, thereby facilitating the spread of sustainable practices in different action fields of everyday life. Corporate participation in online community discourse may serve to set the benchmark of sustainable practices and provide product support (Nambisan & Baron, 2007).

Starting from such a foundation, product offerings with default settings in *sustainability-mode* may foster sustainable practices (Warde, 2017). This study highlighted idiosyncratic types of adjustments that sustainability-oriented consumers in the market for smartphones suggest. The insights for potential sustainable product innovations concern not only specific functions, which diffuse rapidly in this market. It is also the type of complements of goods and actions that should be accommodated by marketers to capture cultural insights into these consumer groups (Vargo & Lusch, 2004). Engagement within communities has been found to spark consumers' actions and to cause changes towards sustainable practices (Gram-Hanssen, 2011; Hargreaves, 2011; Sahakian & Wilhite, 2013). Online communities that follow macro-social objectives like sustainability (Kozinets et al., 2012) have been recognised as a source of innovative practices (Kozinets et al., 2008). Marketing managers can support transformations towards sustainable consumption practices by ensuring that, when new practices are adopted, they are maintained (McKenzie-Mohr, 2011). Given the sustainability challenges that the smartphone market faces, the desire of consumers for more ethical alternatives is unlikely to be short-lived.

### ***Limitations and future research***

This study had the following limitations. First, the article reported on a single online community. To learn more about the conventions of specific everyday contexts, such as the use of ICTs in mobility cultures, future research should study the practices of further communities. Also, future work would have to compare sustainability-oriented praxis of smartphone consumption with the praxis of a current mainstream brand. Second, the number and type of observations were limited to online data, indicating that consumers express their narratives in public (Gopaldas, 2014) and refer to everyday practices. However, the researcher has gained familiarity with the relevant practices and material arrangements using a smartphone of the same make. These procedures allowed the researcher to re-enact

and adjust to most smartphone practices through personal experience. Third, in this research, the period between the documentation of user comments online, interpretive analysis and discussion through a netnographic summary spanned approximately 24 months, which might count as a limitation when the constantly evolving functionality of the consumer electronics market is considered. Future research could also examine the role that moderators in online environments can play to foster sustainable practices.

## Notes

1. This type of evangelising differs from impression management in the study of Schau et al. (2009) since it is not necessarily tied up with a specific brand but is more focused on performing sustainable practices that also apply in multi-brand contexts.
2. Non-text content was presented in Unicode standard, e.g. :-).
3. See the 'Data collection' section.

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