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## How users shape markets

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### **Abstract**

The purpose of this paper is to elaborate conceptually on the user-market relationship. Existing research reports a limited user-market relationship, which simultaneously exaggerates and underplays user influence on markets. Assuming a constructivist market studies perspective, we argue that the scope of the user-market relationship is broader than developing offers and uses. We conceptualise market shaping as five inter-related sub-processes in which users may be involved as agents: qualifying goods, fashioning modes of exchange, configuring actors, establishing market norms and generating market representations. The extent of user influence in these sub-processes is likely to vary both within a specific market and across markets. By identifying conditions conducive to user involvement in each sub-process, we lay the foundation for empirical research into how users shape markets.

**Keywords:** users, market shaping, constructivist market studies, co-creation

## Introduction

Users are recognized as an important category of actors in several market-related contexts, including new product development and value co-creation. But how do users contribute to shape markets? Consider the following brief illustrations:

In 2003, a set of Internet activists linked to the Swedish lobby group The Pirate Bureau established ‘The Pirate Bay’, which became the world’s largest file sharing site. The group criticized the limitations imposed by copyright laws on media goods in existing markets.<sup>i</sup> They openly promoted file sharing as an alternative, and made available a platform allowing other users to engage in alternative (non-market) exchanges. In 2005, the group formed the Pirate Party as part of their campaign against an impending change in Swedish copyright law (Miegel and Olsson, 2008). While industry representatives argued against file sharing, claiming ‘*the market works*’<sup>ii</sup>, politicians were less inclined to do so. Proponents suggested that technical advances had made current legislation obsolete and that file sharing was growing because there were no viable commercial alternatives.<sup>iii</sup> Despite court cases<sup>iv</sup> and other attempts to close The Pirate Bay,<sup>v</sup> it has remained online except for short periods.<sup>vi</sup>

A less contentious user-driven development is the establishment of car sharing. The first contemporary schemes began in Europe in the mid-1980s. In 2013, there were over 1,000 cities around the world with car share schemes,<sup>vii</sup> ranging from informal community arrangements to large-scale commercial services covering multiple urban areas.<sup>viii</sup> These have contributed to establish an alternative qualification of cars based on the service derived from car access rather than car ownership. Moreover, car rental companies and car manufacturers have also started various projects, such as BMW’s ‘DriveNow’ scheme in Munich. Companies and analysts alike are increasingly describing these exchanges as taking place on ‘the market for car sharing’.<sup>ix</sup>

These examples hint at how users contribute not only to product/service design and evaluation, but also to other aspects of market shaping, such as generating market images or influencing market norms. The starting point for this paper is that while existing literature reports a limited user-market relationship, the involvement of users in the process of shaping markets is not systematically explored. As such, our purpose is to conceptually elaborate on the user-market relationship.

The STS-informed co-construction of users and technology tradition (Akrich, 1992, 1995; Oudshoorn and Pinch, 2003a, b, 2009; Woolgar, 1991), the user innovation literature

(Franke and Shah, 2003; von Hippel, 1986, 2005, 2007)<sup>1</sup> and research on value co-creation in marketing (Vargo and Lusch, 2004, 2008; Cova et al., 2011) provide support for our basic contention that users are involved in shaping markets. However, these literatures typically centre upon how users contribute to the development of new technologies and new markets (e.g. von Hippel, 2005; Rose and Blume, 2003). This is mirrored in marketing, where the active role of users in product and use development is highlighted (e.g. Cova and Cova, 2002; Vargo and Lusch, 2004; Alam, 2002). However, little attention is paid to other market processes.

Hence, while existing research suggests a limited user-market relationship, it tends to both exaggerate and underplay its scope. It exaggerates by assuming that users are synonymous with buyers (cf. Mowery and Rosenberg, 1979), thus making users a proxy for demand. Yet even when users are viewed as market agents, they are neither identical to buyers/customers, nor 'ready-made' and pre-equipped with agential capacity (Callon, 2013). Moreover, it underplays user contribution by relying on a relatively crude conception of market shaping; this involves more than developing objects of exchange and uses to which new products are put. In other words, despite the recognition that innovation processes in general have both a technology and a market dimension (Abernathy and Clark, 1985), the focus in current user research tends to be on the former.

In this paper, we use constructivist market studies (CMS) to explore the user-market relationship. Based on previous research about market organising, we conceptualize market shaping as made up of five inter-related sub-processes, and then elaborate on and identify conditions likely to affect the extent of user involvement in each of these. We assert that user influence in the five sub-processes is likely to differ within and across markets.

The paper proceeds as follows. Next, we review existing research traditions that address the role of users. We then propose CMS as a perspective for exploring further the user-market relationship and outline a model of market shaping as consisting of five sub-processes. Finally, we discuss the implications of our conceptualization for how users might shape markets. Establishing the precise character and importance of user influence, however, requires further empirical studies.

## **The relation between users and markets: both exaggerated and underplayed**

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<sup>1</sup> There are also streams of user research focusing on the domestication of technology (e.g. Silverstone and Haddon, 1996; Lie and Sørensen, 1996) and on organisational IS implementation (Orlikowski, 1992).

Our reading of the marketing, STS and user innovation literatures suggests a limited user-market relationship.<sup>2</sup> This is two-fold: (i) users actively participate in developing offers/objects in their capacities as co-developers, prosumers, etc.; and (ii) users influence the uses to which new products or services are put, alongside how they are evaluated by prospective buyers. Arguably, there is little discussion of other market processes.

The marketing literature has emphasized the central role of active users both in NPD processes and for value creation (e.g. Normann and Ramirez, 1993; Vargo and Lusch, 2004, 2008; Payne et al., 2009).<sup>3</sup> The participation of users, be they consumers, customer firms or service beneficiaries, in development processes is widely reported as one key to successful new offerings (e.g. Gouthier and Schmid, 2003).

The STS and user innovation literatures focus on user-technology relationships.<sup>4</sup> Here, user influence is observed directly during product development and commercialization and indirectly by influencing the interpretative frames used to assess the product (Rosenberg, 1982; Rothwell et al., 1974; Lundvall, 1988; Shaw, 1985; Håkansson, 1987; Biemans, 1991; Håkansson and Waluszewski, 2002, 2007; von Hippel, 1988, 2007; Öberg, 2010; Laage-Hellman et al., 2014). The STS tradition discusses the representation of users in the design and testing stages of product development. Both users and uses are configured (Woolgar, 1991) and ‘materialised in the technology’s design’ (Hardon, 2006:616) via predictions as to what future users require. Representations are generated either explicitly or implicitly and serve as inputs to product design (Akrich, 1992, 1995; Schot and de la Bruheze, 2003; Akrich et al., 2002a, b). Alignment processes between suppliers and users are dynamic, in particular if users are ‘unwilling’ (Rose and Blume, 2003) or ‘resistant’ (Kline, 2003).

There are three central issues concerning how these literatures handle the user-market relationship. First, they focus more or less exclusively on demand. Second, they emphasise value-in-use over exchange value. Third, despite a wealth of user labels, they tend to conflate users and customers. We elaborate on each issue below.

*Demand focus.* From a market perspective, the emphasis on user involvement in developing offers implies an assumed link between improved offers and increased demand. That is, if the value of a given product ultimately is determined in use, then improving offers for known uses or developing new uses should positively influence market demand. This

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<sup>2</sup> These literatures were chosen because they do consider markets, are overlapping and complementary, and related to CMS.

<sup>3</sup> Both buyers and sellers are considered active parties in, for example, service marketing (Grönroos, 2000; Gummesson, 2007; Edvardsson et al., 2005; Ngo and O’Cass, 2013) and B2B marketing (e.g. Håkansson, 1982).

<sup>4</sup> The two traditions can be considered as complementary and overlapping (for useful overviews, see Oudshoorn and Pinch, 2003b, 2009; von Hippel, 2005), even if there is weak dialogue between the two (for an exception, see Flowers, 2008).

reasoning assumes a robust link between value-in-use and exchange value; any change in the potential value-in-use of an offer will be reflected in a corresponding change in buyers' willingness to pay. It also suggests that a market is already in place or that it will form more or less automatically.

This resonates well with the established conception of 'the market' as synonymous to customers/demand in much of the innovation literature (e.g. Czepiel, 1975; Mowery and Rosenberg, 1979; Rogers, 1962; Tidd et al., 2005). For example, Schot and de la Bruheze (2003) argue that both product characteristics and user requirements are mutually articulated during the market introduction process. In this process, users can assist innovators in demonstrating the existence and character of demand (Akrich et al., 2002a).

The demand theme is also prominent in the user innovation literature with its assumption about lead users facing needs before the general market (von Hippel, 1986: 796). Despite linking users to (future) markets, the reasoning does not require users to assume an active role in shaping those markets. Here, the most in-depth study of user involvement in market shaping suggests a four-phase model of market development (Baldwin et al., 2006). However, the focus is on *industry* development (the supply side), and there is little discussion of how conditions for economic exchange are created (see Araujo et al., 2010a; Callon and Muniesa, 2005).

*Value-in-use focus.* The emphasis on value-in-use and value co-creation (Vargo and Lusch, 2004, 2008) highlights the continuous influence that users may exert on markets, beyond the initial development and introduction of an offer (e.g. Ballantyne and Varey, 2006). Emphasizing value-in-use closely associates customers with users: an offer or resource integration promise (Storbacka and Nenonen, 2011) has to be *used* in order for value to be created (Ballantyne and Varey, 2006:342). While important, this focus on value-in-use tends to downplay (market) exchange value and any role of users therein.

The conceptualization of the customer as a value co-creator remains contested<sup>5</sup> but implies several roles for the supplier in orchestrating user-involvement (Grönroos, 2008, 2011; Grönroos and Voima, 2013; Wiersema, 2013). In the most supplier centric version, the supplier configures roles in NPD projects and determines how to benefit from involvement in user communities (see Prahalad and Ramaswamy 2002; Stern 2011). There are parallels here to the

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<sup>5</sup> There are divergent views concerning the scope of the customer/consumer role in value co-creation. That is, should their role in value co-creation be conceptualized separately (Ballantyne and Varey, 2006; Akaka and Chandler, 2011; Grönroos, 2000; Osborne and Ballantyne, 2012; Gummerus, 2013), or as a totality, as in Vargo and Lusch's (2008) comprehensive framework emphasizing value-in-use.

STS discussion of how suppliers can configure both users and uses (Woolgar, 1991; Akrich, 1992, 1995).

A more customer-centric perspective (e.g. Heinonen et al., 2010) stresses user influence by defining value as value-in-use within the customer's 'life world'. The challenge for the supplier is to become involved in on-going consumption patterns.<sup>6</sup> In other words, the market is somewhat by-passed and the objective for suppliers is to gain access to day-to-day use situations. In this connection, the user innovation literature has highlighted innovations occurring without supplier-firm involvement (e.g. von Hippel, 2007; Flowers, 2008; Schulz and Wagner, 2008). This blurred distinction between production and consumption, as well as the altered power dynamics that result from increasingly active users, raise concerns about user exploitation (Zwick et al., 2008; Cova and Dalli, 2009; Cova et al., 2011) and creates challenges for suppliers in terms of monetizing user efforts (Arvidsson, 2011).

*User labels and roles.* The term 'users' is variously interpreted as consumers, employees, user firms, customers, prosumers, co-creators, technology designers, individual innovators, patients and citizens, depending on the context (Rose and Blume, 2003; Flowers, 2008; Weiner, 2010). While 'users' are typically treated as equivalent to customers or consumers within marketing, a similarly bewildering plethora of terms is used (Cova et al., 2011).

The STS and user innovation literatures offer considerable support for the role of users in the design of innovations, e.g. as idea generators (see Oudshoorn and Pinch, 2003a, b; Biemans, 1991; Urban and von Hippel, 1988). A few contributions also stress the role of users during commercialization of new products, e.g. in marketing or technical support (see Baldwin et al., 2006).<sup>7</sup> Users are thus recognized as capable of assuming multiple roles, and the development of uses is also considered to be dynamic.

In terms of the user-market relation, the majority of these labels imply a role for users in, again, developing offers and uses. By treating users either as proxies for demand (direct substitutes for 'buyers'), or as a special category of experts on use, or as potential product developers involved in modifying supply, the market process is significantly truncated. Only in a few instances are users recognized in intermediating roles such as 'technical support provider' during commercialization (e.g. Lindsay, 2003; Pinch, 2003; Cova and Cova, 2002; von Hippel, 2007).

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<sup>6</sup> There are parallels here to work in consumer culture theory (Arnould and Thompson, 2005) and the domestication of technology (Silverstone and Haddon, 1996; Lie and Sørensen, 1996).

<sup>7</sup> This applies to industrial (e.g. Urban and von Hippel, 1988), consumer (e.g. Franke and Shah, 2003) and services settings (e.g. Magnusson, 2003).

Overall, we argue that existing literatures provide support for a limited user-market relationship, yet run the risk of both *exaggerating and underplaying* the contribution of users. The risk of exaggeration is due to the implicit assumption of a strong link between users and buyers (cf. Mowery and Rosenberg, 1979). But users are not necessarily identical to buyers or customers, even when they do hold an agential role in market exchange. In some instances, it might make sense to assume correspondence, but presupposing this seems overly simplified. For example, user involvement seems less motivated if a supplier is interested in preferred ways of acquiring a product. Moreover, underlying this is a view of actor categories as pre-existing, already agenced, and independent of how they are treated by others (e.g. Tryggestad et al., 2013). In other words, users are assumed to be pre-equipped with agential capacity (Callon, 2013).

The risk of underplaying the potential scope of user involvement is due to the relatively crude conception of market shaping processes. In the STS and user-innovation literatures, user-market influence occurs primarily during product development and commercialization. Only a few STS studies explicitly attend to a broader user-market link (e.g. Pinch, 2003). In the marketing literature, while the production-consumption interface has been blurred (e.g. Holbrook, 1987; Peppers and Rogers, 1993; Firat et al., 1995; Beckett and Nayak, 2008), studies of the active participation of users have centred upon product development and use/consumption. This has resulted in a lack of systematic attention to user influence on market exchange as such.

To further elaborate on the user-market relationship an alternative conception of market shaping processes is required. To this end, we draw on CMS, as outlined below.

### **Using CMS to model market shaping**

CMS is an emerging interdisciplinary research field that investigates the practical workings of markets.<sup>8</sup> Inspired by ideas from science and technology studies (Callon, 1998c), particularly actor-network theory (e.g. Latour, 1987, 1996), the starting point is to view markets as emerging

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<sup>8</sup> See the special issues by Araujo et al. (2008), Cochoy et al. (2010), Geiger et al. (2012), Helgesson and Kjellberg (2013), Mason et al. (2015) and the edited volumes by Araujo et al. (2010b), Cochoy (2012), Beckett and Aspers (2011), Callon et al. (2007), Geiger et al. (2014), Helgesson et al. (2004), Zwick and Cayla (2011). There are also efforts to integrate insights from SDL and CMS (Akaka et al., 2013; Chandler and Vargo, 2011; Storbacka and Nenonen, 2011; Vargo and Lusch, 2011). The growing interest in the organizing of markets is also evident in other traditions, e.g. Roth's (2007) work on market design within economics. Moreover, a substantial body of research in marketing has long emphasized the importance of relationships and networks (Håkansson and Snehota, 1989; Johanson and Mattsson, 1992). Other marketing scholars have added insights on the active role of firms in shaping their market contexts (Jaworski et al., 2000) and the role of socio-cognitive structures in forming product markets (Rosa et al., 1999).



outcomes best understood by following the process of their practical realization (Çaliskan and Callon, 2009). Research in this tradition encourages detailed empirical investigations of how specific markets are being constituted. More specifically, CMS involves a shift from an *ostensive* to a *performative* definition of markets (Latour, 1987; Andersson et al., 2008). The former asserts that it is possible in principle, but practically difficult, to list the central properties of markets; the latter inverts this reasoning and asserts that it is *impossible* in principle to compile such a list, but that actors involved in realizing a particular market typically are able to identify the most relevant ones.

Thus CMS emphasizes heterogeneity in economic co-ordination not by contrasting ideal types but by investigating the multiple forms of ‘really existing markets’ (Boyer, 1997).<sup>9</sup> This shift underscores the idea of markets as plastic entities that are continuously ‘in the making’ (cf. Latour, 1987). Nenonen et al. (2014: 4) define markets as ‘on-going socio-material enactments that organize economized exchanges’. Callon and Muniesa (2005) suggest that this organizing of ‘economized exchanges’ involves three tasks: making goods calculable, forming distributed calculative agencies, and arranging for calculated encounters between such agencies and goods. Kjellberg and Helgesson (2007a) emphasize that the organizing of markets extends beyond individual economic exchanges and propose two additional practices – producing normative objectives and representations of markets.

One central theme in CMS is the interest in how economic theories at large influence economic reality (Callon, 1998b, 2007). Efforts to shape markets include those that seek to realize particular types of markets, such as the ‘ideal’, perfectly competitive market (Olsen, 2012; Kjellberg and Helgesson, 2006; Reverdy, 2010). Several empirical studies have investigated such shaping efforts and the performative effects they give rise to, i.e. the extent to which economics and other social scientific disciplines contribute to constitute the markets they seek to describe (see MacKenzie and Millo, 2003; MacKenzie, 2006a, b; MacKenzie, Muniesa and Siu, 2007; Mason et al., 2015). For example, performative effects have been noted in the formation of regulatory frameworks (e.g. Christophers, 2013; Helgesson, 1999; Johansson Krafve, 2014). Moreover, these effects are not limited to formal theories, but apply to all bodies of expertise mobilized to constitute markets (Araujo, 2007), including instances of theorizing in the wild by various ‘self-interested theorists’ (Rinallo and Golfetto, 2006).

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<sup>9</sup> This is at odds with how many critics of economics have positioned themselves (e.g. Gudeman, 2008; Miller, 2002; Mirowski and Nik-Khah, 2007). We argue, along with Callon (2005), that refraining from defining markets up front is highly useful when seeking to shed light on the practical shaping of markets.

Second, CMS highlights the role of technology, material arrangements and devices in shaping markets (Callon et al., 2007). This extends previous theorizing on markets as social constructions (Geiger et al., 2012) beyond the embeddedness of economic action in interpersonal networks (Granovetter, 1985), the formation of socio-cognitive structures (Rosa et al., 1999) and the political moves of powerful groups (Fligstein, 1996). Rather than representing a return to technological determinism, however, CMS insists on a symmetrical treatment of material and social forces (cf. Callon, 1986). The material dimension is prominent in the qualification of goods (Callon et al., 2002), but also contributes to shape, for example, the calculations performed by economic agents (Cochoy, 2008).

We want to emphasize three key points concerning how CMS can illuminate the user-market relationship. First, by conceptualizing markets as continuous enactments rather than ‘ready-made’, CMS goes beyond simplistic stage-models of market emergence, e.g. formation-stability-change-dissolution. It stresses that markets are continuously shaped both by explicit efforts to create new markets or change existing ones, *and* by the everyday activities of buyers and sellers (cf. Alderson and Cox, 1948). This allows us to explore how users exert influence over markets beyond the initial commercialization of an offering.

Secondly, by emphasizing the potential import of economic theories on working markets, CMS invites us to consider how user perspectives may influence the on-going production of markets. This reflexive stance makes CMS well suited for inquiries into the consequences of explicit efforts to include users in, e.g. the spread of normative models on co-creation (Prahalad and Ramaswamy, 2002).

Lastly, by viewing market agencies as outcomes rather than as already agenced entities (Callon, 2013), CMS allows us to inquire into the very constitution of users as an agential category. This includes how users are provided with agential capacities during market shaping processes and thus why their role may differ across markets. It also allows us to turn the assumed close relation between users and customers (noted above) into a topic for empirical inquiry.

### *Modelling market shaping*

To elaborate on ‘how users shape markets’, we draw on the CMS literature to model market shaping as made up of five intertwined sub-processes (see Figure 1). Specifically, we combine the conceptual works of Callon and Muniesa (2005) and Kjellberg and Helgesson (2006, 2007a) to provide a comprehensive yet parsimonious framework.

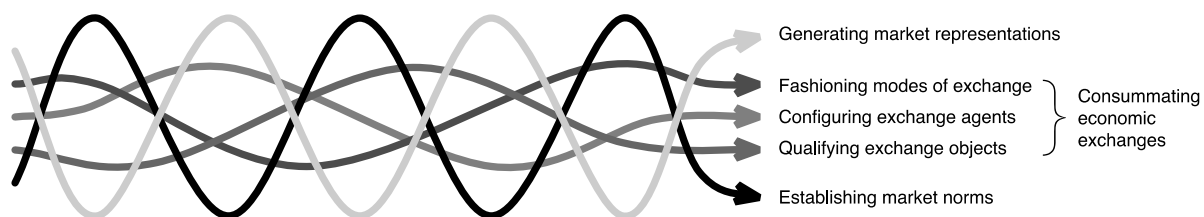


Figure 1: Market shaping conceptualized as five intertwined sub-processes.

As the five sub-processes are interrelated changes resulting from any one of them are likely to affect, and sometimes create tensions in relation to, how the others unfold. They are also likely to become entangled as part of on-going market practice, particularly if substantial changes are being produced within one or more of them (Kjellberg and Helgesson, 2006). This means that activities do not inherently ‘belong to’ a particular sub-process; rather, any given activity could contribute to each sub-process depending on the context within which it is performed (Kjellberg and Helgesson, 2007a). However, previous research suggests that the sub-processes are sufficiently different in terms of what they produce to warrant conceptual distinction.

As illustrated in Figure 1, three of the sub-processes are more closely intertwined – qualifying exchange objects, fashioning modes of exchange and configuring exchange agents – in that they all contribute directly to how economic exchanges are realized (Callon and Muniesa, 2005). The remaining two sub-processes are complementary and inspired by the model of markets constituted by practice (Kjellberg and Helgesson, 2007a). These highlight that the formation of markets depends on the production of images of certain economic exchanges as taking place on a market (cf. Anand and Peterson, 2000), as well as on the establishment of normative objectives for that market (cf. Fligstein, 1996).

The *qualifying exchange objects* sub-process is about determining the qualities of a good (Callon et al., 2002; Mallard, 2012). Any such quality is always both *intrinsic* (dependent on the offer being qualified) and *extrinsic* (dependent on how and by whom it is probed). This suggests two types of practices are involved. One concerns the literal modification of the offer in order to change its performance in some dimension. These practices revolve around specific activities that are capable of bringing about such modifications (e.g. product development). One important precondition is to gain access to the internal constitution of the offer. The other type of object qualification practice concerns the development of specific metrologies that can

be used to probe products/services (Beuscart and Mellet, 2013; Reijonen and Tryggestad, 2012). Access to the inside of the object could be useful, but is not necessarily a precondition. Activities here could involve identifying and working with customers in developing, testing and commercializing goods.

The second sub-process, *fashioning modes of exchange*, concerns organizing the encounter and subsequent economic exchange of a good (Callon and Muniesa, 2005; Kjellberg and Helgesson, 2007b). There are two complementary facets, the first of which revolves around creating a transactional infrastructure for conducting economic exchanges (e.g. Cochoy, 2008, 2010; Hagberg, 2010). This is systemic; the various components of such infrastructures make up wholes. The other is to establish interaction routines for the exchange parties (e.g. Håkansson and Snehota, 1995). This is bilateral; it involves scripting an interactive sequence that consummates an economic exchange. Specific practices include company initiatives to establish modes of exchange for different customers, and promoting these within and across organisations (e.g. sales networks). This involves the application of specialized competences, e.g. in market research, merchandizing (cf. Barrey et al., 2000).

Third, *configuring exchange agents* is about assembling the heterogeneous collectives that act in market situations (Andersson et al., 2008; Cochoy, 2008; MacKenzie, 2009). Successful enactment of an exchange sequence requires actors capable of performing the scripted actions and responding to the other party. This typically includes configuring buyers/customers and sellers/suppliers. The sub-process thus overlaps with the extrinsic facet of qualifying goods, which depends on the experiences, sensitivities and skills of the assessing actor. It further relates to the establishment of interaction routines when fashioning a mode of exchange. Assembling a collective requires combining elements into entities capable of performing specific actions, e.g. educating actors, organising supply chains, adding knowledge about product uses, etc. Well-known examples of elements that contribute here include CRM tools and loyalty cards. The process comprises the scripting of actions (Akrich, 1992) and the literal putting together of elements, i.e. efforts to ensure that acting entities incorporate particular pieces of information, knowledge or devices. Since most elements can be used in more than one agential configuration (Andersson et al., 2008), a central challenge is to ensure that a specific configuration is realized in a given exchange situation.

*Establishing market norms* shapes normative objectives for how a market should be organized according to some actor(s) (Kjellberg and Helgesson, 2007a). This includes reform efforts and market de-/re-regulations (Johansson Krafve, 2014; Reverdy, 2010) as well as company specific efforts to establish objectives for their market engagements, e.g. in the form

of business models (Doganova and Eyquem-Renault, 2009; Mason and Spring, 2011). Generally, the sub-process concerns what values should guide actors in a particular market, making it highly political (cf. Fligstein, 1996). These values may directly relate to each of the other sub-processes. For example, characteristics that market actors should have (e.g. in terms of size or capabilities), or ways in which the market is best depicted (concentration, price levels, etc.). The practices include establishing or changing formally approved rules, informal norms, and shared understandings about markets (e.g. Azimont and Araujo, 2014; Beunza and Garud, 2007). The design of market regulations typically engages policy makers and authorities, but other stakeholders may also seek to influence such processes.

Lastly, *generating market representations* produces images of a market and/or how it works based on some aggregation of exchanges (Rinallo and Golfetto, 2006; Azimont and Araujo, 2007; Harrison and Kjellberg, 2010). The images will depend on the exchanges being aggregated (and hence on the outcomes of the first three sub-processes) and on how these are brought together and represented. The process also depends on the established market norms; these will suggest what is important to depict. One example is conducting market analysis, which involves the use of specific methods of measurement and instruments to generate representations of exchanges, e.g. analyses of point-of-sales data. Efforts to promote/disseminate market images are also central. These activities could involve sales, marketing and product management staff debating ‘what our customers want’ (Dubuisson-Quellier, 2010) or specialized market analysts proffering their views (Beunza and Garud, 2007).

We argue that these five intertwined sub-processes constitute a comprehensive framework. While alternative conceptualizations are possible, it offers a consistent and much richer conception of market shaping processes than those found in the user literatures. Notably, it takes us beyond a product (development) focus while still recognizing its import via the qualification of goods, and hence addresses the noted tendency to underplay the user-market relation. By positing that agential capacities are enacted during market shaping, the framework is also well suited to address the converse issue of exaggerating the import of users on markets by equating them with customers.

### **Conceptual elaboration of user involvement in market shaping**

We now elaborate on the user-market relationship, providing empirical illustrations based on previous research (where available) and developments in markets that should be generally familiar (see Table 1 for a summary)

- Insert Table 1 about here -

### *Qualifying exchange objects*

Our framework highlights two types of practices in which users may become involved. First, users may take part in the literal modification of exchange objects. Empirical studies reviewed above suggest users can shift from passively accepting the proposed qualification of a good to actively modifying it. User involvement is sometimes actively sought by producers, e.g. by allowing access to the internal constitution of their products via tool kits (Franke and von Hippel, 2003; Jeppesen, 2005), or actively soliciting input from users in NPD processes (as suggested in the co-creation literature). However, there are dimensions for qualifying a good that do not relate directly to use (e.g. environmental consequences) or that stay within the realm of intended uses (e.g. prescribed behaviour). The role of users in modifying exchange objects in these dimensions is less clear.

An alternative form of user involvement occurs when resistant users engage in designing and commercialising alternative goods as user entrepreneurs/ producers (Baldwin et al., 2006). For example, user communities centred on on-line gaming, with or without the involvement of a supplier (e.g. Humphreys et al., 2005). This is likely to be correlated with user-perceptions of inferior performance of available goods.

Second, users may contribute to develop specific metrologies to probe products. They may do so directly, by suggesting new criteria for qualifying goods, or indirectly, by developing applications that direct attention to new aspects of existing products. One example is how early users of a new scientific instrument developed applications that came to guide a supplier's development activities (Harrison and Waluszewski, 2008).

Hence, the first sub-process acknowledges the established user-technology relation, but adds nuance to this by highlighting the dual role of users in the qualification of exchange objects. The extent of user involvement in a specific market is likely to depend on the relative importance of dimensions whereby user experience and skills are considered relevant. It is also likely to vary with the degree of user access to the internal constitution of the object. Finally,

we expect variation depending on the extent to which current uses are reflected in the qualification of exchange objects.

### *Fashioning modes of exchange*

User involvement is also traceable by analysing how market exchanges are organized. Specifically, our framework highlights the importance of mediating between production and consumption (Schot and de la Bruheze, 2003) by creating transactional infrastructures and establishing interaction routines. While users may not intuitively be expected to take part in such matters, there are numerous examples to the contrary. One explanation is that ‘resistant users’ can disagree with the way in which market exchanges are organized, rather than with the qualification of the exchange object. As a result, they might select non-market exchanges or establish alternative ways of making goods accessible as illustrated by our introductory examples. Users also resist specific modes of exchange by refusing to follow the script provided.<sup>10</sup> Depending on the responsiveness of the other party, such situations may escalate into public campaigns or other efforts to alter the mode of exchange.

In general, the degree to which the economic exchange of an object is distinct from its use is likely to influence inversely the extent of user involvement in fashioning the mode of exchange. Markets for ‘classic’ services that directly involve the customer qua user, e.g. hairdressing, would increase the likelihood of user involvement as compared to markets for services that are mediated by physical products (cf. Vargo and Lusch 2004). In the latter, the subsequent use of an object can be seen as largely independent of how it was exchanged, thus providing less incentives for users to engage directly. However, exchange objects can be requalified so that the *service* derived from them becomes the object of exchange. This would then increase the likelihood of user involvement by linking use and users more closely to exchange (as in our car-sharing example).

### *Configuring exchange agents*

Here, one aspect of user involvement concerns the extent of direct participation in consummating economic exchanges. It is possible to recognize users as either an agential category in their own right, or as one of the elements making up another category, e.g. ‘customers’. So far, we have assumed users are recognizable as a distinct agential category that

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<sup>10</sup> It should be noted that there is considerable conflation between customers and users here, even in the most relevant examples, such as Kline’s (2003) account of US farmers’ resistance towards joining electricity cooperatives in the 1930s.

can be explicitly included in the exchange process. This is not always the case. In many markets, particularly consumer markets, the configurations of users and customers overlap to such an extent that these are treated as one-and-the same, thus blurring user involvement. By emphasizing the combination of elements and the associated challenge of ensuring that a specific agential configuration is realized in a given situation, CMS allows a more fine-grained understanding.

The exchange and subsequent use of a good can overlap so that ‘customer’ and ‘user’ coincides, e.g. when getting a haircut. Yet even here, they could be distinct – think ‘parent taking child to get haircut’. Moreover, a significant overlap between the elements that make up ‘the customer’ and ‘the user’, such as when they involve the same ‘human body’, is not enough to ensure user participation in exchange. An individual may lack previous user experience or fail to use it when consummating the exchange. Actual user involvement is thus a matter of the extent to which user-considerations are incorporated into the agential configuration of the buyer or customer. This relates back to the extrinsic facet of qualifying exchange objects and the devices used to probe an object.

Variation across markets is likely, both in terms of the form and extent of user participation, and in terms of user proactivity. In some instances, users have gained power by passively being enrolled into the collectives that constitute customers. This may be part of a seller’s marketing strategy, as in the case of Frequent Flyer Programs in the market for air travel (Araujo and Kjellberg, 2015). From a more proactive standpoint, users may refuse to accept or initiate changes in, existing actor configurations. For example, inserting themselves into organizational purchasing processes to influence buying behaviour (cf. Ulkuniemi et al., 2015). Irrespective of how such changes are initiated, they are likely to re-configure power relations in the market (e.g. Cova et al., 2011; Akaka and Chandler, 2011).

Users may also influence the assembling of collectives by configuring one another alongside current market agents, e.g. via devices that allow users to engage as a collective. Lindsay’s (2003) study of the TSR-80 computer provides one example of a user community influencing the very idea of the computer user. Devices used by companies to collect and disseminate user feedback and configure customers as collectives (e.g. TripAdvisor), are another example. Early users may also influence sales processes/devices to the extent that they aid the supplier in configuring later customers as illustrated by the use of early user experiences of the Minimoog synthesizer in its further commercialization (Pinch, 2003).

Users can also configure agents that are not directly involved in economic exchange. For instance, the successful creation of a user community may be a basis for engaging in



establishing market norms. Similarly, user communities may be instrumental in disseminating alternative images of a market. These may in turn influence the consummation of economic exchanges in that market. In some instances, suppliers also actively support such user communities, e.g. pharmaceutical companies sponsoring patient organizations.

In sum, user participation in configuring exchange agents can be both direct and indirect, and extend beyond the exchange situation. The extent to which users participate in economic exchanges is likely to vary across markets, as is the degree to which they engage in attempts to configure the agents that do participate. Being recognized as a distinct agential category by other market actors will increase the likelihood of user influence, but it is neither a necessary nor a sufficient condition for it.

### *Establishing market norms*

Users might contribute here by promoting alternative values, ideas regarding acceptable exchanges, and influencing behavioural norms (see our Pirate Bay illustration). User communities provide an example of how users can attain influential roles in informal normalizing processes in markets. In more formalized settings, consumer organizations sometimes obtain seats on expert committees investigating legislative changes, etc. (van de Bovenkamp and Trappenburg, 2011).

User engagement in and influence over normalization will probably vary depending on what the norm concerns. It is likely to be stronger for norms regarding the qualification of exchange objects than for those relating to modes of exchange, unless the market exhibits a strong direct link between exchange and use. Similarly, user involvement in establishing norms about the constitution of exchange agents would depend on the extent to which users consider (participation in) exchange activities important. Finally, user involvement would depend on whether users consider current market images to be relevant. In short, the extent of user participation is likely to vary even within one market, depending on what is being normalized.

In all cases, successful user participation in establishing market norms hinges on users becoming recognized as relevant. As such, there is a close link to the configuration of market agents. While users are not typically the most powerful group in this respect, there are markets in which they have considerable 'clout', e.g. health care. The increasing possibilities for user community formation offered by digital technologies are likely to influence positively user participation.

### *Generating market representations*

User involvement here ranges from the efforts of highly involved user activists, via user panels and other forums for user input, to the passive contributions of consumers leaving traces of their behaviour. User involvement is further intertwined with the formation of user communities/organizations that can provide alternative images of the consequences of specific market arrangements.

Efforts to disseminate alternative market images may be combined with e.g. explicit attempts to alter market norms. For example, in the market for car-sharing, users both advocated alternative market images and promoted an alternative mode of exchange. Less proactively, users can contribute to generate market representations by providing input into market analyses, e.g. via participation in user panels, or simply accepting cookies in their browsers.

User influence over this sub-process is again likely to vary across markets. It depends on the extent to which current methods of representing the market recognize and employ user-related indicators. It also hinges on the extent to which (groups of) users are equipped to produce and disseminate market images to relevant others. Most importantly, this requires an ability to collect and aggregate user-related data into market images.

### **Discussion**

This paper has conceptually elaborated on the user-market relationship. We outlined the user-market relationship in the marketing, STS and user-innovation literatures, and argued that these literatures both exaggerate and underplay user influence. Adopting a CMS perspective allowed us to systematically explore user involvement beyond the qualification of goods and development of uses. By conceiving markets as on-going enactments shaped by five interrelated sub-processes, we identified and illustrated how users may contribute to shape the mode of exchange in markets, the configuration of market actors, the norms that govern markets, the images produced of them, as well as the goods exchanged. In other words, we contend that users should be conceived as potential market agents, whose involvement is empirically observable in all five sub-processes of market shaping.

This suggests a significantly wider scope for user participation in markets than currently recognized. Due to the conceptual nature of our work, it is difficult to make strong claims as to the relative importance of user involvement in and across the sub-processes. However, we

have identified conditions likely to affect the extent of user influence in each sub-process. This allows us to assert that user influence is likely to differ between markets along with variations in these conditions. Establishing the precise character of user influence in specific markets, however, requires empirical examination.

Based on our conceptual discussion, comparative static and cross-sectional research could generate knowledge about the extent, character and variation of user involvement over time and across markets. Such studies could investigate variation in user involvement across sub-processes within specific markets and/or search for similarities and differences in user involvement across markets. For example, what makes users important in certain markets and less so in others? How does user proactivity vary across different market sub-processes? Are there systematic differences in user participation in different sub-processes within one market, between markets in different stages / phases of realization, and across markets that are organized differently? Here, our conceptualization of market shaping and the identified circumstances favouring user involvement offers useful starting points for both study design and data collection.

However, it is problematic to address questions invoking dynamics, such as how users are constituted as market agents and how their capacities as agents emerge over time, through static cross-sectional studies. Longitudinal case studies of specific markets are thus crucial for generating knowledge that can help explain user involvement. How (and why) does user involvement vary within and across the sub-processes over time? How is user involvement interrelated across the five sub-processes within an on-going market change process? Are there distinct patterns of user involvement in the sub-processes over time? Here, our conceptual work offers a frame of reference for systematically tracing user influence beyond product development.

In particular, our elaboration of the user-market relationship adds three things. First, it expands the scope of how users can shape markets by including five sub-processes, and not only emphasizing one, which allows us to discuss an expanded user-market relationship. The conditions identified as conducive to user involvement above offer concrete support to empirical study design. These conditions revolve around the enactment of users as agents in specific market situations, either by linking use more closely to the consummation of economic exchange or by recognizing users as relevant stakeholders. As an example, a comparative study of markets for goods that vary in terms of their separation of exchange from use would be suitable for investigating user involvement in fashioning modes of exchange. Similarly, an

empirical study of how users influence market norms should seek to capture the ways and extent to which users are recognized as relevant stakeholders.

Second, by conceiving the very constitution of market actors as part of market shaping, our model endogenizes the emergence of specific user versions with particular agential capacities. That is, the market-shaping roles of users are not pre-defined; in a specific market users can be enacted in many ways, including the possibility of acting as stand-ins for customers. However, the range of possible user roles is much wider, which complicates a reliance on ‘user influence’ to explain the emergence of specific market forms, since users are no longer existing ‘prior to’ the market. Endogenizing the emergence of users also allows us to question the consequences of invoking specific user versions, both as part of the market shaping sub-processes discussed above, and as part of particular market configurations (Storbacka and Nenonen, 2011). Here, we can pose new questions about user influence that go beyond simplistic user conceptions, possibly also raising questions about users *of* markets.

Third, , and related, working markets incorporate a variety of actors engaging in continuous efforts to put in place conditions for exchange (Callon, 1998a; Callon et al., 2007; Araujo et al., 2010a). This may include efforts to configure ‘who the user is’ and award users more or less passive roles (e.g. Lindsay, 2003). Moreover, selling organizations engage in efforts to award specific roles to users, notably in new product development, which may channel user influence in certain directions rather than others. This raises questions concerning their efforts to involve users in market organising and configure user roles to their benefit. Supplier initiatives towards value co-creation (e.g. Grönroos, 2008), e.g. creating devices to empower users, and persuading users to assume more or less active roles, can also be employed. Of course, suppliers must be aware that users may seek to exclude them from their activities (e.g. Flowers, 2008) and that users/user communities could alter, break or circumvent their efforts (cf. Kline, 2003; Wyatt, 2003). In this respect, our work injects some perhaps healthy doubt as to the effects of user involvement, and in particular the co-optation of users, for commercial purposes.

To conclude, our discussion has relevance both for the user literatures, in which a more elaborate conception of markets is motivated, and for CMS, in which a more systematic attention to users can be called for. While users may be expected to assume more prominent positions in certain areas of market shaping than in others, we hope to have shown that user influence across all of the five sub-processes cannot be disregarded simply as a matter of course. Conversely, while other groups of actors implicated in the shaping of markets may be expected to assume central roles in such processes (buyers, sellers, regulators, etc.), we hope to have

shown that user influence can indeed be important. Our conceptualization of markets as constituted via five interrelated market-shaping sub-processes also underscores that there are few conceptual obstacles against empirically investigating user influence on markets.

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**Table 1. User involvement in market sub-processes**

Sub-process	Characterisation	Involved practices	Examples of user involvement
1. Qualifying exchange objects	<i>Determining</i> the qualities of a good, both intrinsically and extrinsically, for the purpose of economic exchange	<p>Modifying the product/service (its internal constitution).</p> <p>Designing use scripts (influencing existing and new product uses).</p> <p>Developing and employing methods for probing products/services (in different use contexts).</p>	<p>Cooperating with producers during product development.</p> <p>Modifying ‘off the shelf’ products.</p> <p>Designing and commercialising goods independently of established producers.</p> <p>Developing novel uses of a product or suggesting alternative ways of probing it, which become adopted by other market actors.</p> <p>Refusing to accept current qualifications.</p>
2. Fashioning modes of exchange	<i>Organizing</i> the encounter and subsequent economic exchange of a good between a buyer and a seller	<p>Building transactional infrastructures that support the consummation of market exchanges (e.g. retail formats).</p> <p>Developing interaction routines for conducting economic exchanges.</p>	<p>Contributing to an alternative mode of exchange by providing experiences that can be aggregated into marketing strategies.</p> <p>Triggering de facto changes in the mode of exchange by influencing sales or purchasing behaviour.</p> <p>Providing an alternative mode of exchange by making goods accessible to others without supplier involvement.</p> <p>Resisting the established mode and opting for non-market exchanges.</p> <p>Exerting pressure within an organization to change its purchasing practices (e.g. towards responsible purchasing).</p>
3. Configuring exchange agents	<i>Assembling</i> heterogeneous collectives that can act in a market situation	<p>Combining materially heterogeneous elements into collectives capable of performing specific actions.</p> <p>-scripting specific actions;</p> <p>-developing auxiliary devices to support such actions; and</p> <p>-literally putting elements together to realize particular agencies, e.g. through education.</p>	<p>Becoming enrolled into or successfully imposing themselves on collectives that constitutes a market actor, e.g. a ‘buying centre’.</p> <p>Configuring one another alongside other market agents, e.g. by developing a forum for exchanging user experience.</p> <p>Assisting to configure new customers by providing know-how that new users can be equipped with.</p> <p>Participating in the configuration of / becoming recognized as relevant stakeholders for establishing market norms (e.g. on product safety) or credible spokespersons concerning the character of the market (e.g. patient organizations).</p>



4. Establishing market norms	<i>Establishing</i> normative objectives for how a market should be shaped or work according to some group of actors	Reforming markets by bringing about regulatory change, e.g. via lobbying. Developing industry-wide standards and norms (e.g. the emergence of de facto standards). Developing business models and establishing market objectives.	Influencing society-wide norms and market-related legislation, e.g. via engaging in public debate. Promoting alternative values to guide how a product/service is to be exchanged and used. Influencing what other users consider to be acceptable exchanges.
5. Generating market representations	<i>Creating</i> images of a market and/or how it works by aggregating selected exchanges	Conducting various forms of market analysis, i.e. re-presenting exchanges in another form and aggregating them into a market image. Promoting/disseminating market images intra- and inter-organisationally. Developing new ways of representing markets, e.g. analysis of big data, etc.	Providing input to an organisation's market analyses by participating in, e.g. bonus/loyalty programs. Providing producers with information about new ideas, actual and potential uses, and customer types, thus supporting the supplier in creating an image of the market. Promoting alternative images of markets, e.g. poor products, unreasonable contractual obligations, etc.

## Endnotes

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- <sup>i</sup> *Svenska Dagbladet*, 'Laddat mål', February 8, 2009.
- <sup>ii</sup> Göteborgs-Posten ekonomi, 'Hon laddar för fler tillslag', August 31, 2006.
- <sup>iii</sup> *Affarsvarlden.se*, 'Google har inte samma syfte som Pirate Bay', April 28, 2009; *LO Tidningen*, 'Dumhetens triumf över marknaden', February 20, 2009; *Dagenshandel.se*, 'Halverad skivförsäljning på fem år', June 12, 2006.
- <sup>iv</sup> *Svea Hovrätt*, 'Deldom i mål B4041-09', November 26, 2010.
- <sup>v</sup> See e.g. *Realtid.se*, 'Kortare fängelse, mer pengar', November 26, 2010; *Svenska Dagbladet*, 'Nere för räkning', September 26, 2010; *Göteborgs-Posten*, 'Pirate Bay i ny rättegång', September 27, 2010; *TT Nyhetsbanken*, 'Nya miljonkrav mot pirater', January 13, 2010; and *Dagens Nyheter*, 'Skivbolag trappar upp striden', May 20, 2009.
- <sup>vi</sup> In late October 2012, Alexa ranked TPB as site 76 in the world ([http://www.alexa.com/search?q=thepiratebay&cr=home\\_home&p=bigtop](http://www.alexa.com/search?q=thepiratebay&cr=home_home&p=bigtop)). After Swedish police raided a server room in December 2014, TPB went offline for almost two months, but was back online on January 31 2015 (<https://torrentfreak.com/swedish-police-raid-the-pirate-bay-site-offline-141209/> and <http://torrentfreak.com/pirate-bay-back-online-150131/>). In May 2015 a court ruling allowed authorities to confiscate the Swedish TPB-domains. The effect was limited since the site was made available via six other domain names (<https://torrentfreak.com/pirate-bay-loses-new-domain-name-hydra-lives-on-150522/>; <http://www.dailytech.com/The+Pirate+Bay+Loses+Its+Iconic+Swedish+Dot+SE+Domains/article37359.htm>).
- <sup>vii</sup> [http://www.ecoplan.org/carshare/cs\\_index.htm](http://www.ecoplan.org/carshare/cs_index.htm) (accessed January 21, 2015)
- <sup>viii</sup> See: Carsharing – Start Up Issues and New Operational Models, Paper presented at Transportation Research Board Annual Meeting, David Brook, 2004, available at [www.carsharing.net/library/startUp\\_Issues\\_TRB04\\_DBrook.pdf](http://www.carsharing.net/library/startUp_Issues_TRB04_DBrook.pdf), and [http://en.wikipedia.org/wiki/Car\\_sharing](http://en.wikipedia.org/wiki/Car_sharing).
- <sup>ix</sup> In their 2011 annual report, ZipCar claimed: 'We estimate the addressable global market for car sharing to be over \$10 billion and we believe car sharing is still in the very early stages of adoption, even in our largest existing markets.' See also the recent analyses of the European and North American car sharing markets by research and consulting firm Frost & Sullivan.