

## Chapter 16: From participatory design to co-creation

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### 16.1 Introduction

Co-creation is important in service innovation. Successful services depend on co-creation of service value in the meeting between customers and companies (Vargo et al., 2004, 2016). Furthermore, involving customers co-creating service design has proven valuable to develop attractive service offerings (Meroni and Sangiorgi, 2011). In this chapter, we provide an overview of current perspectives on co-creation and discuss these in terms of trust. Furthermore, by exploring one of the roots of co-creation, participatory design, we seek to transfer experiences from this tradition of research and practice to advice on how to establish the trusting relations needed for co-creation in service innovation.

By *co-creation*, we mean an approach to service design and delivery where the customer is seen as an active collaborator. Co-creation is becoming increasingly important as customers engage ever more in service relations involving networks of professional actors and fellow consumers. Furthermore, customers often are actively involved in processes to design and develop new or improved services.

This shift towards customers being more actively involved in both service provision and design has implications for service providers. Service providers increasingly need to trust their customers to manage their role in the service delivery process. Furthermore, customers have a growing need to trust their service providers with information and knowledge concerning their past behaviour and future needs, and service provision more often is conducted in networks of mutually trusting partners

Consider the case of Snapsale (<http://snapsale.com>), a start-up provider of a peer-to-peer redistribution market. Their service offering is an iOS/Android app for selling and buying second-hand goods. The sellers and buyers are not simply customers of Snapsale; rather, they also engage in relations with other customers at Snapsale as they negotiate and conclude deals, transfer sold goods, and make payments. Hence, for the individual Snapsale customer, the *service value* results from a collaborative process involving both other customers and Snapsale, neither of which is in total control of the process. To make sure that their *service*

*design* serves as a basis for good customer experiences, Snapsale needs to constantly improve and redesign their service concept and underlying systems and processes.

The Snapsale service is characterized by co-creation of the service value and co-creation of the service design. Service value is co-created in collaboration between the customers and the company. The service value depends on the engagement of prospective sellers and buyers, to an extent that this engagement is an integrated part of the offering. Value for the seller is co-created as the seller uses Snapsale to set up and distribute ads intended for buyers, and as the seller is contacted by buyers with interests that match the offer the seller has made. Value for the buyer is co-created as the buyer uses Snapsale to identify offers matching his interests, and as the buyer contacts the seller to conclude the deal.

Likewise, the service design of Snapsale is formed in a process of co-creation. Snapsale is a start-up company in a service sector dominated by national competitors, international actors such as eBay, and informal peer-to-peer redistribution groups on social media platforms such as Facebook. To remain competitive, Snapsale continuously works to improve their service design according to feedback from customers. The feedback may be implicit, as in the case of log-analysis of ads, or explicit, as when conducting user research to generate insights and ideas for service improvements.

A number of trust issues may be identified in the Snapsale co-creation. The customer needs to engage in a trusting relationship with Snapsale. The customer must assume that their privacy is respected and that the online market is sufficiently monitored so that it is not an arena for scams and dishonest advertisers. Furthermore, the customer needs to trust the other Snapsale customers. Snapsale also engages in trusting relationships, and trusts its customers not to engage in abusive interactions with other customers.

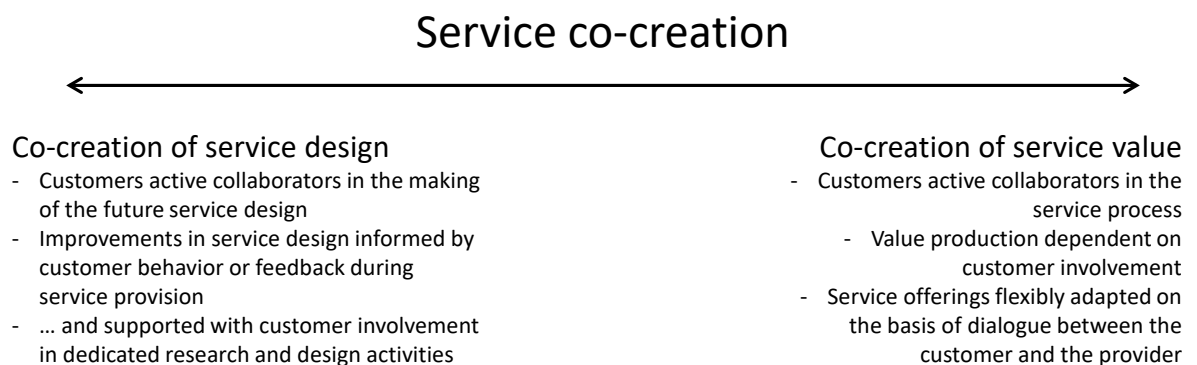
Understanding co-creation and how to address and mitigate associated trust challenges is critical for the success of start-up companies like Snapsale as well as mature market leaders. In this chapter, we will provide an overview of current co-creation practices and on this basis provide lessons learnt and recommendations.

First, we will provide an overview of the concept of co-creation and point out challenges pertaining to trust that are relevant for co-creation. Then, as a source of insight into how some of these challenges have been addressed in the past, we will give an overview of one of the historical roots of co-creation: participatory design. On this basis, we will discuss potential implications for co-creation.

## 16.2 Co-creation

In response to what they see as the implications of an increasingly networked society, Prahalad and Ramaswamy have for more than a decade argued that companies should move from a company-centric and efficiency-driven view of service provision towards a customer-centric and experience-driven perspective. Customers are co-creators of value in their interaction with the service provider (Prahalad and Ramaswamy, 2002). Such co-creation of value happens in the meeting between individual customers and providers, and in networks of actors comprising the customer, the company, partners, other customers, and customer communities (Prahalad and Ramaswamy, 2003).

In a networked society, the customers, not the companies, define service value. Drawing on theories of the experience economy (Pine and Gilmore, 1998), such service value is typically understood in terms of customer experience rather than in terms of company-oriented indicators of value such as production or distribution costs (Prahalad and Ramaswamy, 2002). Given the unique and contextual character of customer experience, the service provider depends on continuous dialogue with their customers to understand evolving customer needs and desires and update their service design accordingly. Hence, service co-creation may span approaches and practices ranging from co-creation of service design to co-creation of service value (see Figure 16.1).



**Figure 16.1: Service co-creation as spanning from co-creation of service design to co-creation of service value.**

While co-creation as understood by Prahalad and Ramaswamy concerns both co-creation of service design and co-creation of service value, their main concern is the co-creation of service value. This leaning towards co-creation of value parallels that found within the field of service-dominant logic (e.g., Vargo and Lusch, 2004, 2016), where the concept of co-creation is understood exclusively as concerning co-creation of value.

Co-creation is seen as a critical element in service innovation. In the introduction to this book (see Chapter 1, this volume), co-creation is discussed as a step in the service innovation journey. Theorists in the fields of design (Freire and Sangiorgi, 2010; Sanders and Stappers, 2008) and new service development (Kristensson et al., 2008; Matthing et al., 2004) have mainly targeted co-creation as the active involvement of customers in the design and development of new or improved services; that is, co-creation of service design. Involving customers as collaborators is seen as beneficial to access customers' knowledge and creativity in the design and development process. Early success stories of co-creation, including Dell's Ideastorm and Starbucks, have fuelled practitioner and researcher expectations for co-creation of service design. Empirical research in the emerging field of new service development indicate that customer involvement in fuzzy front-end service innovation at its best may generate ideas that are more innovative and have higher user value than those developed on the basis of traditional market research techniques (Witell et al., 2011) or by professional service developers (Matthing et al., 2004). In the field of design, co-creation is seen as tapping into the collective creativity of customers, designers, and service or product owners (Sanders and Stappers, 2008). Such collective creativity may enhance the outcome of the design and development process through fuzzy front-end activities such as user research and idea generation, and also during concept development, prototyping, and implementation. Sanders and Stappers (2008) argued that, while co-creation has commonly been taken up in the later stages of development, in particular through one-to-one customization, more attention is needed concerning co-creation in the earlier phases of ideation and prototyping.

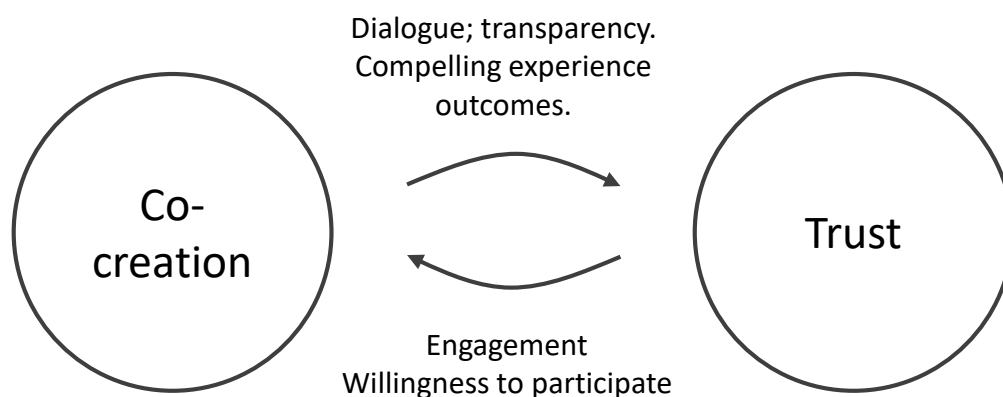
While theorists within design and new service development see the co-creation of service design as their main concern, they have noted that the co-creation of service design is closely linked to the co-creation of service value (e.g., Kristensson et al., 2008; Sanders and Stappers, 2008). Co-creation of service design and co-creation of service value may be seen as two ends of a continuum (as in Figure 16.1), rather than two distinct fields of interest. Therefore, experiences and lessons learnt of relevance for co-creation of service design may be relevant for co-creation of service value and vice versa.

### **16.3 Trust and co-creation**

A co-creative relationship is characterized by mutual trust. To enable co-creation of service value, the service provider typically needs to gather customer information to tailor the service offering according to the customer's needs and desires. Prahalad and Ramaswamy (2004) highlighted the need to engage in customer dialogue. Such dialogue requires a trusting

relation. Similarly, the co-creation of service design also requires a trusting relation. The customer needs to trust the company and design team to actually improve the service offering on the basis of the provided input, and they need to trust the company to be professional in their management of personal data. The company and the service design team need to trust the customer with the responsibility of providing relevant and useful input in the design process.

In spite of their importance in service co-creation, trust issues are not dealt with at any length by key co-creation researchers of marketing (Prahalad and Ramaswamy, 2002, 2004; Vargo and Lusch, 2004, 2016), design (Freire and Sangiorgi, 2010; Sanders and Stappers, 2008), or new service development (Kristensson et al., 2008; Matthing et al., 2004; Witell et al., 2011). Rather, these researchers have only in passing mentioned the need to "develop close and trusting relationships" (Matthing et al., 2004, p. 480), strengthen trust through transparency (Prahalad and Ramaswamy, 2002), and have trust "emerge from compelling experience outcomes" (Prahalad and Ramaswamy, 2004, p. 13). As may be inferred from these brief mentions, trust can be seen both as a necessary precondition for co-creation and as an outcome of co-creation. Figure 2 illustrates this mutual dependency between co-creation and trust.



**Figure 16.2: Mutual dependency between co-creation and trust.**

Some researchers, however, have gone into detail concerning the relation between co-creation and trust. Randall et al. (2011) found support for a model where trust affects intention in a co-creative relationship. Edvardsson et al. (2008) discussed, from the perspective of the service-dominant framework, trust as a key enabler in the initiation phase of professional relationships. Finally, Romero and Molina (2011) argued that trust is a necessary condition for establishing, growing, and maintaining customer communities for co-creation.

Of particular interest to our purpose, Romero and Moline discussed the trust implications of Prahalad and Ramaswamy's (2004) four building blocks of co-creation:

*dialogue, transparency, access, and risk-benefits.* These four building blocks are at the core of trust management in current co-creation theory. We will therefore briefly review these below.

*Dialogue:* Prahalad and Ramaswamy (2004) argued that markets can be seen as a "set of conversations between the customer and the firm" (p. 9). Dialogue presupposes that the company and the customer participate on an equal level. Romero and Molina (2011) discussed dialogue as a key enabler of trust, as it builds a shared understanding between the company and the customer. However, engaging in co-creative dialogue also requires some level of trust to have already been established (Ballantyne and Varey, 2006 Jaworski and Kohli, 2006).

*Transparency* concerns the moving towards information symmetry between the customer and the company. An increased level of transparency is a necessary consequence of the networked society where access to information is abundant (Prahalad and Ramaswamy, 2004). Romero and Molina (2011) highlighted transparency as a key enabler of trust. They explained that disclosing the business processes of the company will strengthen the level of trust in their partners in co-creation.

*Access* concerns making necessary tools and information available for customers to partake in co-creation. Customers are hence provided multiple pathways to co-creation of value, rather than presupposing ownership of the needed tools or information (Prahalad and Ramaswamy, 2004). A service model built on access rather than ownership may pose different trust requirements to the company than a model built on ownership (Romero and Molina, 2011).

*Risk-benefits:* In a co-creative relationship, where the customer is expected to make informed choices, the company can see risk as distributed among the co-creating involved partners (Prahalad and Ramaswamy, 2004). Hence, for the customer, a co-creative relationship implies trusting a set of involved contributors rather than trusting the company alone (Romero and Molina, 2011).

We will next discuss how these four building blocks may be complemented by key principles of participatory design.

#### **16.4 Participatory design – at the roots of co-creation**

Building trusting relationships between collaborating partners has been important in *participatory design*, one of the predecessors of current co-creation approaches (Sanders and Stappers, 2008). The principles for collaboration established within the participatory design

tradition, spanning more than four decades of research and practice, may be of relevance for discussing trust also in the context of co-creative practices.

Originating in the 1970s as a Scandinavian approach to information systems development, the field of participatory design holds extensive knowledge and experience as to how to involve stakeholders in collaborative design processes (Holmlid, 2009). Participatory design evolved in a period of high attention towards workplace democracy. A key objective of participatory design was to make sure that the new technologies were designed for efficient work support in a way that was compatible with workers' needs and rights (Ehn, 1993). The methods and techniques developed to support participatory design were later taken up as a commonly applied basis for systems development (Greenbaum and Kyng, 1991; Schuler and Namioka, 1993), user-driven innovation (Buur and Matthews, 2008), and service design (Polaine et al., 2013). As participatory design has been used to support the design of consumer products and services, the democratic aim of participatory design has been toned down while its pragmatic objective of customer involvement as a means to identify future opportunities and guide the design process has been accentuated (Bergvall-Kåreborn and Ståhlbröst, 2008).

## **16.5 Establishing trusting relations through principles of participatory design**

We aim to describe principles from participatory practices that enable trusting relations between co-creating partners. We will review five principles and discuss how they may inform current efforts of researchers and practitioners of co-creation to establish trusting relationships between customers and service providers. The list of principles is our own, but it is set up to reflect key assumptions and lines of thought in participatory design literature and practice.

### **16.5.1 Leverage multiple stakeholders and interests (P1)**

The multiplicity of stakeholders and interests is acknowledged as a key characteristic of participatory design. This is particularly seen in workplace design processes, which may involve end-users, designers and developers, owners, and other affected parties (Gregory, 2003). Hence, the democratic aim of participatory design entails the balancing of power between users and owners, or consumers and companies, and the acknowledgement of the multiplicity of stakeholders and interests concerned with the design. In participatory design, the multiplicity of stakeholders and interests is seen as a resource rather than an impediment.

By acknowledging multiple stakeholders one may, for example, set the stage for value creation in networks of collaborating stakeholders. Björgvinsson, Ehn, and Hillgren (2012) discussed the need to infrastructure design; that is, to establish the necessary networks of stakeholders to set the stage for continued design or improvement.

### **16.5.2 Establish common ground (P2)**

With its roots in workplace technology development, theorists and practitioners of participatory design have been acutely aware of different stakeholders having different languages and perspectives (Andersen and Holmquist, 1991). To engage in fruitful collaboration, it is necessary to establish a common ground for communication. Within participatory design, the use of prototypes as an object of dialogue and exchange between users, designers, and owners helps establish such common ground. The initial ideas or conceptualizations of the design are given concrete shape as mock-ups (Ehn and Kyng, 1991) or visualizations (Müller, 1991) to establish understanding across the involved parties. This use of early prototypes to drive the design process has since been adopted by human-centred design and service design (Polaine et al., 2013).

### **16.5.3 Observe practice (P3)**

Value in use is the result of contextualized practice, and understanding practice is a critical basis for design (Wynn, 1991). While users will know this context well, they may not be able to express all relevant aspects of this context. They may not even be consciously aware of all relevant aspects. Hence, understanding practice through dialogue with and observation of users is critical (Suchman, 1995). In the early days of participatory design, the norm for context analysis was observation through field studies or data collection through specialized interview methods such as contextual inquiry (Holtzblatt and Jones, 1993). Today, networked devices, user data, and social media provide additional means for observing customer behaviour.

### **16.5.4 Encourage skill-based participation (P4)**

In participatory design, knowledge is seen as distributed between different stakeholder groups. Knowledge pertaining to the domain of the users will typically reside in the users themselves. The knowledge that users bring into the design process is often skill-based rather than being explicated, such as in procedural work descriptions (Ehn, 1993). Hence, the



transfer of knowledge may be challenging. A first step towards accessing the necessary work domain knowledge is to recognize its character as skills rather than rules. To make this knowledge actionable, a number of cooperative methods have been developed where trying out and refining designs with users is conducted through trial-based hands-on approaches (Bødker et al., 1993).

#### **16.5.5 Aim for a greater good (P5)**

The participatory design tradition aims for the greater good; what we can term a *moral premise* (Holmlid, 2009). Participatory design has from its inception been seen as an approach to strengthen workplace democracy. As such, workplace users of technology are seen as having a moral right to have their voices heard in processes that will affect their everyday lives (Ehn, 1993). Participatory design has also been seen as an approach to involve those in the design process that will be impacted from the possible negative consequences of the design. As such, participatory approaches have been argued to enable increased attention towards matters like sustainability in design processes (Sanders and Stappers, 2008).

### **16.6 Discussion: Lessons learnt from participatory design**

We have explored five key principles of participatory design, all with implications for trust. In the following, we will discuss these trust implications and the degree to which these principles may inform current co-creative practice.

#### **16.6.1 The normative basis for dialogue and thriving on multiple stakeholders**

Romero and Molina (2011) detailed the trust implications of the four building blocks of co-creation presented by Prahalad and Ramaswamy (2004), that is, dialogue, transparency, access, and risk-benefits. In the principles from participatory design, we see that several of these are clearly connected to *dialogue* and may also serve to expand on this trust-creating building block of co-creation.

Dialogue between involved stakeholders is key to both participatory design and current theory of co-creation. At the heart of the dialogue in participatory design is the need to balance power among the collaborating partners. The basic premise is that everyone has the right to have their voice heard in matters that will influence their lives (Ehn, 1993). Relevant stakeholders should thus be identified and included in the design process, and participatory methods are developed to leverage **multiple stakeholders and interests (P1)**. A similar point

is made in theory of co-creation; for the co-creative dialogue to be meaningful, it must be conducted between equal partners (Prahalad and Ramaswamy, 2004). However, in theory on co-creation, such balancing of power is seen as a pragmatic rather than a normative principle. Furthermore, researchers argue that, for dialogue to serve as a basis for co-creation, some level of trust must already exist (Ballantyne and Varey, 2006 Jaworski and Kohli, 2006). Possibly, to establish the trusting basis necessary for co-creative dialogue, seeing dialogue as a normative principle rather than merely as a pragmatic approach to service provision may be helpful.

### **16.6.2 Complement dialogue to address what cannot be verbalized**

The participatory design principles of **establishing common ground (P2)**, **observing practice (P3)**, and **skill-based participation (P4)** are also helpful to inform dialogue in co-creation. In co-creation, dialogue facilitates the sharing of knowledge and building of a common understanding (Prahalad and Ramaswamy, 2002). The dialogue reported from co-creation cases typically concern verbal or written communication, for example in the form of dialogue within online customer communities or with single customers as part of a delivery or relationship process (Prahalad and Ramaswamy, 2013). However, as noted in participatory design, the context of use and customer requirements may not easily be explicated (Suchman, 1995). Hence, the co-creating partners may need to complement verbal dialogue with actual observations of practice to gain a sufficiently rich picture of the customer's context of use. Likewise, as much of the customers' relevant knowledge is likely to be skill-based and non-verbal, the dialogue needs to be conducted in a manner where this skill-based knowledge may be taken into account. For this purpose, beneficial approaches may be to establish a common ground through prototyping and to allow for activity-based involvement of the customer in the design process. Involving users or customers in such development and testing of prototypes is at the core of service design, as this emerging field also has participatory design at its roots (Polaine et al., 2013).

### **16.6.3 Co-creation for a greater good**

Co-creation is encouraged as a way to provide value from the customer's perspective. This perspective is also incorporated in participatory design, with its aim to facilitate improved design processes and outcomes. However, participatory design often has a dual aim, also targeting normative aspects such as workplace democracy (Ehn, 1993) or sustainable design

(Sanders and Stappers, 2008). In participatory design, the notion of a successful design and the notion of a **greater good (P5)** are closely connected. Freire and Sangiorgi (2010) stated, "Generating lasting and transformative projects require participatory design inquiries that question the very assumptions and norms behind service practices and interactions [...] co-creating flexible platforms or 'infrastructures' that people can own, inhabit and transform" (p. 48). Seeing value-creation at the level of the individual customer together with benefits on the level of society or societal groups may potentially be conducive to trust, and may serve as a complement to the current theory on co-creation (Sanders and Stappers, 2008).

### **16.7 Conclusion: implications and way ahead**

We started this chapter with the mobile peer-to-peer redistribution market of Snapsale. Trust clearly is important to Snapsale as customers of Snapsale engage in trusting relations with prospective sellers and buyers, in addition to Snapsale. How, then, could the Snapsale case be informed by the principles of participatory design, as a complement to current co-creative theory?

Firstly, though experienced customers can be expected to be knowledgeable and skilful in their use of redistribution markets, they may not be able to verbalize all their existing knowledge and skills. As a result, it may be beneficial to involve customers in trials of early prototypes of new service design rather than engaging in mere verbal exchanges on design improvements. Secondly, by acknowledging the multiplicity of stakeholder interests, the service network may be set up so as to flexibly adapt to changing interests and also to benefit from diverging interests and opinions. For this purpose, Snapsale utilizes Facebook ads to promote items for sale, enabling the connection of sellers and buyers on the profiling information held by Facebook. This approach makes it easier to connect sellers and buyers with similar interests, recognising that different customers have different and diverging interests. Finally, Snapsale is a service that also supports a greater good; it democratizes peer-to-peer redistribution and makes a step towards more sustainable consumption patterns. Maybe such "greater good" qualities in the service could be highlighted even more to strengthen the trust relation with its customers.

In this first chapter on co-creating services, we have outlined key trust implications of co-creation. Furthermore, we have identified how principles from participatory design may inform and complement current theory on co-creation. This knowledge helps us better understand the potential roles of co-creation in service innovation, and how to use co-creation as a source of strengthening trust in service innovation. In the next two chapters, we will go

into detail on more specific approaches to co-creation, namely crowdsourcing and open innovation platforms.

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