

# The role of meaning in service innovation: a conceptual exploration

Meaning in  
service  
innovation

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Received 7 January 2020  
Revised 5 July 2020  
14 November 2020  
Accepted 9 February 2021

## Abstract

**Purpose** – The purpose of this paper is to introduce the concept of meaning as a relevant but missing link in understanding the building blocks of service innovation informed by service-dominant (S-D) logic. In exploring the role of meaning in service innovation, especially related to new value propositions, resource integration and new value cocreation, the authors suggest using the conceptualization of meaning within human-centered design, which has an established body of knowledge on addressing how actors engage and interact.

**Design/methodology/approach** – The paper builds an actionable conceptual framework that relates meaning to central tenets of service innovation, such as resource integration, value propositions and cocreation of value. It delineates the central building blocks of service innovation and conceptually integrates them with meaning to explain the underlying mechanisms of service innovation related both to its development and adoption.

**Findings** – The findings highlight how and why meaning precedes value creation and directs resource integration. Indicating that meaning is driven by experience of earlier interactions it delineates its relationships with new value formation and positions resource interpretation as a driver of this process.

**Originality/value** – This paper extends the understanding of service innovation in relation to S-D logic, with meaning as a conceptual link to aspects of S-D logic that claim a phenomenological nature. Meaning contributes to S-D logic by providing an understanding of how beneficiaries form intentions to engage in value creation and resource integration. Additionally, by integrating service and design research domains, this paper suggests possibilities for multidisciplinary contributions in future research.

**Keywords** S-D logic, Service innovation, Meaning, Resource integration, Value cocreation

**Paper type** Research paper

## Introduction

Technology has been considered a game changer for the service context, but the transition from new technologies to novel value cocreating solutions remains a challenge (Ostrom *et al.*, 2015).

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska – Curie grant agreement No 642116. The information and views set out in this publication are those of the authors and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

This paper is part of a Special Section dedicated to the Naples Forum on Service, and was guest edited by Professor Cristina Mele, University of Naples "Federico II", Federico, Italy and Professor Francesco Polese, University of Salerno, Fisciano, Italy.



In 2011, when Nest introduced its smart home meter utilizing algorithms to predict energy consumption patterns, the attention from both the public and the media was overwhelming. Expectations about how this smart technology would change consumers' engagement with energy consumption and what it would mean for their everyday lives were based on the notion that the future had arrived and there was no going back. The promise of this bright future was that smart interactive technologies would erase the tiring activities of household management and would bring benefits of personal comfort and satisfaction through ease of use and more sustainable consumption behavior. Although advances in smart technology development focusing on innovating electricity markets and smart homes have been extensive, a more systemic transformation toward this vision did not follow in the same capacity, with user adoption occurring slower than expected (Earley *et al.*, 2019). This example illustrates an obstacle that many companies face when innovating within complex service systems. They invest resources in developing new service solutions that ultimately fail to become extensively adopted and to support the transformation of consumer behavior, industry business models or institutional policies. Thus, the novelty and change never fully ensue, not because the solution itself was without value but because this proposed value simply did not make enough sense for the service system actors to engage. In other words, the value proposition designed by the service providers was not interpreted by the user as meaningful.

The example above illustrates one of the common practical struggles of service innovation: new technology often does not lead to new value creation, especially for the users, which creates various problems for service providers (Kristensson, 2019). Equating new technology to innovation is fairly common and reflects the notion that the service provider is entirely in charge of developing and delivering new solutions to the market to satisfy its needs. However, a different paradigm positing that new value for both service providers and users is always cocreated, jointly challenges the established understanding of service innovation. This paradigm, theoretically framed within service-dominant (S-D) logic (Vargo and Lusch, 2004), defines service as the basis of all exchange and service innovation as new forms of value cocreation where actors integrate resources guided by organizational capabilities and institutional practices (Edvardsson and Tronvoll, 2013; Koskela-Huotari *et al.*, 2016). Service providers combine novel and existing resources and practices to develop value propositions that enable new value cocreation (Skälén *et al.*, 2015). Thus, service innovation entails the service providers generating new value propositions that can enable novel approaches to resource integration and, therefore, generate new forms of value cocreation for all the system actors (Lusch and Nambisan, 2015; Vargo and Lusch, 2008).

In that sense, for new forms of value cocreation to emerge, it is not so important how technically groundbreaking new technology is but whether customers and other actors understand how this technology can be used and become valuable. This involves actors interpreting the value proposition as meaningful and potentially value creating but also recognizing and interpreting their individual or collective competence as adequate for engaging in resource integration. Thus, there are underlying meaning-making mechanisms accompanying the service innovation building blocks.

Innovation management literature offers some insight into how radical innovation emerges from a change in meaning (Buganza *et al.*, 2015; Norman and Verganti, 2014; Verganti, 2008). Additionally, a well-known practice-based concept of "jobs to be done" (Christensen, 2016) advocates a turn toward a customer-centric perspective according to which marketers should elicit customer action by focusing on what makes products meaningful. Although meaning plays a role in both, the former framework follows a goods-dominant perspective, while the latter is still in its theoretical infancy. According to S-D logic, value is considered to be meaning laden (Vargo and Lusch, 2008), and shared meanings are important both in resource integration (Gummesson and Mele, 2010) and in institutionalizing service innovation (Vargo *et al.*, 2015). However, the concept of meaning and its impact on service innovation has not been

thoroughly explored. Thus, the purpose of this conceptual paper is to point toward the relevance of meaning in understanding service innovation informed by S-D logic. To delineate the role of meaning in service innovation, we argue that the conceptualization of meaning from the domain of human-centered design should be considered.

Meaning is a central concept in human-centered design. It posits that interactions with all design artifacts, from products to systems and discourses, are bound by meaning and, as such, are indispensable for understanding both phenomenological and institutional contexts of use (Krippendorff, 2006). This is especially relevant for understanding what makes users interact with technology-enabled artifacts, how they appropriate them in their own context and how this becomes reflected in their changed practices (Mekler and Hornbæk, 2019). Thus, meaning plays a role in determining how novelty in value cocreation emerges by driving the interaction with value propositions and resource integration for both service providers and other actors.

In this paper, we explore and delineate the concept of meaning from the human-centered design domain. We focus on its role in understanding the phenomenological and interpretative aspects of service innovation, especially in value cocreation and resource integration. By positioning meaning as an underlying mechanism of service innovation in terms of its processes and outcomes, we develop a conceptual framework showing why meaning precedes and is necessary for understanding new value cocreation (Almquist and Lupton, 2010; Krippendorff, 1989, 2006; Sengers and Gaver, 2006). By delineating the concept of meaning and integrating it with the core tenets of service innovation, we contribute to S-D logic with a more comprehensive perspective on phenomenological and institutional innovation dynamics in human-centered service systems (Helkkula *et al.*, 2018; Jaakkola *et al.*, 2015; Maglio and Spohrer, 2013). On the basis of our conceptual framework that integrates design and service research domains (MacInnis, 2011), we also provide a future research agenda based on implications for both service innovation and service design as this intersection is still in need of further theoretical development (Antons and Breidbach, 2018).

This paper is structured as follows. First, the theoretical framing presents an overview of the key concepts of service innovation – namely, value cocreation, value propositions and resource integration – and meaning from human-centered design. Following this, we undertake a conceptual exploration showing the role of meaning in service innovation, followed by the integrative framework and illustrative example. Next follows the discussion of our contributions, and we conclude by presenting future research directions.

## Theoretical framing

### *Service innovation as a new form of value cocreation*

Exploration of the phenomenon of service innovation has evolved from focusing on services as augmented products or distinctive offerings to understanding it as an all-encompassing organizational process (Carlborg *et al.*, 2014). The latter view, often supported by the theoretical underpinnings of S-D logic, emphasizes service innovation as a dynamic process that focuses on the process of resource integration in the cocreation of new value (Lusch and Nambisan, 2015). Thus, understanding the multifaceted nature of service innovation to account for change that is complex, dynamic and increasingly embedded in interactive technology is considered an important research priority (Ostrom *et al.*, 2015). This conceptualization that rests on the fundamental premises of S-D logic views service as the basis of all exchange, service providers as only offering value propositions and value as emerging in use and as context dependent. This conceptualization of service innovation also emphasizes the importance of actors wanting to engage in resource integration for their own benefit and that of others (Vargo and Lusch, 2016).

Although these premises are considered axiomatic, questions about how and why new forms of value cocreation emerge are still in focus in much of the service innovation

discussion. For example, [Skälén et al. \(2015\)](#) argue that value propositions are fundamental in understanding service innovation and point to the lack of clarity regarding their role in new value cocreation. They argue that value propositions, defined as different configurations of resources and practices, should be considered as a key to understanding new value cocreation and, thus, equated with service innovation. Moreover, certain configurations of resources and practices should articulate the meaning of new value propositions, thus enabling interaction ([Skälén et al., 2015](#), p. 144). At the same time, resource integration is seen as another key process of service innovation that unfolds under new and improved integration practices guided by institutional arrangements ([Lusch and Nambisan, 2015](#)). New value stems from resource integration that is embedded in the cocreation process, thus positing resource integration as a “fundamental enabler in value-creating service ecosystem” ([Caridà et al., 2019](#), p. 66). Here, institutional arrangements, including shared norms, practices and meanings, are also considered necessary for engaging in social interaction ([Koskela-Houtari et al., 2016](#)). This implies that meaning has a role in explaining how actors interact and engage with resources. However, its conceptual exploration has not been thoroughly pursued in connection to service innovation. Moreover, by problematizing the role of value propositions ([Skälén et al., 2015](#)), resource integration ([Findsrud and Dehling, 2019](#); [Go Jefferies et al., 2019](#)) and institutional arrangements ([Edvardsson and Tronvoll, 2013](#); [Koskela-Houtari et al., 2016](#)) in new value cocreation, research suggests that there is a need for a clearer and more granular conceptual understanding of the service innovation building blocks that can ensure operationalization and higher practical relevance. In the next paragraphs, we focus on further dissecting these building blocks and point to the existing challenges.

#### *Value propositions and value formation in service innovation*

Viewing service innovation as new value propositions and new value cocreation posits value formation as an interactive, contextual and phenomenological process defined as value-in-use ([Edvardsson et al., 2011](#); [Vargo and Lusch, 2016](#)). Research indicates that the process of interactive value formation encompasses a broad network of actors within intricate social and institutional environments ([Akaka et al., 2013](#); [Vargo and Akaka, 2012](#)). Additionally, [Vargo et al. \(2015\)](#) detect the institutionalization process as the driver of innovation in service ecosystems, where collaboration among system actors, rather than any linear development, should be the primary focus. However, [Saarijärvi et al. \(2013\)](#) argue that a macro-level perspective can shift the focus from the focal actors in value cocreation and completely overlook the evaluation of perceived value. This can challenge the clarity and validity of the concept ([Grönroos and Voima, 2013](#)) and hide the phenomenological qualities of value that are important in the process of designing new value propositions ([Lindič and da Silva, 2011](#)).

Some studies focus more on experiential components of value, pointing to the practices of value formation and discussing meaning as an important element of phenomenological experience. [Helkkula et al. \(2012a\)](#) argue that practices are related to routinized and observable behavior steered by shared meanings, while experiences are related to individual and phenomenological sense-making in a particular social context. Value can, therefore, be viewed from both the practice and experience perspectives since “value cocreation practices are part of the experience of a value, regardless of the degree to which it can or cannot be verbalized, observed, felt or remembered” ([Helkkula et al., 2012a](#), p. 563). Thus, value formation is not linear and rational but individual, intersubjective, social and relational, and it can also take place outside of service encounters.

This has important implications for service innovation. Service providers cannot control the entire value cocreation process since new value formation is affected both by the joint and individual actors’ contexts ([Helkkula et al., 2012b](#)). Thus, new value formation can have

different outcomes, regardless of the providers' intention (Echeverri and Skålén, 2011). However, what service providers can do is influence how their value propositions are designed because they represent the key drivers according to which actors decide to engage in new value cocreation (Kowalkowski, 2011). Although research indicates the importance of cocreative practices in developing new value propositions and their connection to new value formation (Kowalkowski *et al.*, 2012; Skålén *et al.*, 2015), understanding the theoretical underpinnings of the concept requires further investigation (Payne *et al.*, 2017). This implies that understanding new value cocreation based on value propositions should take into consideration not only how value propositions are designed but why actors would find them meaningful to engage with.

#### *Resource integration in service innovation*

Resources and resource integration together represent another key aspect in the process of new value cocreation, making it essential to understand service innovation (Mele *et al.*, 2010). In S-D logic, resources are characterized as operand, pertaining to tangible assets, and operant, pertaining to knowledge and skills, and as becoming in use (Vargo and Lusch, 2004). Thus, through resource integration, actors perform a series of activities to cocreate certain benefits (Payne *et al.*, 2008). Operant resources cannot be observed outside the usage and interaction in which value cocreation happens since they are not added qualities. Although S-D logic posits that resources become in use, understanding the process of their becoming needs further clarification, especially regarding the connection between individual interaction practices (Findsrud and Dehling, 2019).

Peters *et al.* (2014) have made a step toward delineating different ontological and epistemological perspectives in advancing knowledge of resource integration. They emphasize the need to understand resource integration by defining and operationalizing interaction, how people experience it, how it is context related and how people create meaning during resource integration. They also see resources as having an intended purpose that is realized only through the deployment of human capabilities. As such, resources do not have intrinsic or given value but become valuable only during the intended activity. They represent possibilities realized through interaction, without which value cannot be formed (Caridà *et al.*, 2019). The human-centered design perspective posits that all interaction and usage are bound by meaning (Almquist and Lupton, 2010; Krippendorff, 2006). Therefore, we contend that integrating a human-centered perspective evolving around meaning and interaction can enrich knowledge of resources because meaning can explain resources as possibilities realized in use through human agency.

Although meaning seems to play an important role in understanding interaction connected to value cocreation and resource integration, previous research on the role of meaning in generating new forms of value cocreation is marginal. Thus, we address research challenges that call for understanding how to develop new meaningful value propositions (Payne *et al.*, 2017) and how to design and orchestrate novel resource integration processes (Kleinaltenkamp *et al.*, 2012). To this end, we posit the concept of meaning as an essential but missing link in the ongoing discussion on new value cocreation in service innovation, and we explore how the concept of meaning, grounded in a human-centered perspective from the design domain, can be relevant in addressing these challenges. As MacInnis (2011) suggests, integrating conceptual knowledge from different domains can open new research spaces for unexplored phenomena and become important for knowledge sharing and multidisciplinary contributions. Thus, we argue that the concept of meaning can provide new insights to address this challenge, which is relevant for understanding the entirety of the service innovation phenomenon – both its development and adoption.

*The human-centered perspective on meaning*

In the human-centered design domain, there is an established body of knowledge regarding the concept of meaning. This is closely connected to questions about human interaction with artifacts and how people make sense of these experiences as this reflects the human aspiration to “perceive the world as meaningful, predictable and purposeful” (Tsai, 2014, p. 992). Meaning plays a key role in understanding interaction with artifacts because it is underpinned by the assumption that people have agency in interacting with what makes sense to them (Krippendorff, 2011). The human-centered perspective defines artifacts on a broad trajectory including products, services, systems or discourses and focuses on uncovering the interactive and intersubjective character of meaning regardless of the trajectory level (Krippendorff, 1997). Defined as a trajectory of artificiality (Krippendorff, 2011), this perspective sees artifacts evolving throughout six levels, reflecting the shift from an object-centered to a human-centered paradigm and moving away from the dyadic user-artifact perspective toward systems of multiple actors. Krippendorff (2011) argues that the increasing complexity of the social world in which people interact is responsible for this evolution of artifacts where meaning becomes a key to understanding how people interact with products, interfaces, systems and language. This perspective shifts the role of artifacts that exist as interfaces through which designers deliver functionalities to passive end users in order to satisfy their presupposed needs toward collaborative systems of meaning where actors have autonomy and agency. Thus, the human-centered design perspective is concerned with a deep understanding of actors’ interaction practices depending on how they use artifacts to be able to access different manifestations of meaning.

Following this trajectory, value propositions can also be considered artifacts. From a human-centered perspective, understanding how people will engage with value propositions and integrate resources to cocreate new value is a question of meaning. For example, a company developing smart home systems can view their value proposition as a technology that offers a variety of functionalities that provide users with actionable insights about their energy consumption. The presence of actionable insights ensuring guidance, safety or delight is assumed to be a value-creating novelty that will motivate people to interact with the system, thus enabling new value cocreation. However, regardless of how advanced technology is, how seamlessly it can be integrated into a person’s home and how valuable it is perceived to be, its adoption in the form of intelligible and ongoing usage will follow to the extent that a user can interpret the technology as meaningful. Although the extent of adoption will depend on different cognitive, affective and behavioral interpretative components relating to meaning, acknowledging its role in designing value propositions, resource integration and value formation is important for understanding how new value cocreation emerges. The concept of meaning in the human-centered perspective is, thus, fundamental in explaining interaction with artifacts. Although meaning cannot be designed as such – that is, one can only design for meaning (Krippendorff, 2006) – understanding situated interactions represents an opportunity for idiosyncratic meanings to arise through the design practice (Čaić *et al.*, 2019; Holmlid, 2012; Redström, 2006). This knowledge has important implications for the service innovation process and outcomes.

*Characterizing the concept of meaning*

There are several viewpoints on the role of meaning in design including use and product experience (Boess and Heimrich, 2008; Cupchik and Hilscher, 2008), product semantics and language (Kazmierczak, 2003; Krippendorff and Butter, 2008; Medeiros, 2014) and human-computer interaction (Sengers and Gaver, 2006). Desmet and Hekkert (2007) provide a framework for product experience that is based primarily on the affective component, emphasizing the importance of interaction and interpretation. Their main constructs are

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“aesthetic experience,” “emotional experience” and “experience of meaning,” all of which unfold during human interaction with artifacts and have affective, cognitive and behavioral consequences. “Experience of meaning” (Hekkert, 2006) is accompanied by cognition (interpretation, association, memory retrieval) and is sensitive to individual and cultural aspects. However, they appraise meaning as attached to products and, therefore, secondary to experience. What is usually emphasized in this view is that the meaning-making process is cognitive, building upon previous experiences and meanings that emerged from it. It also suggests that meaning, especially at the individual level, can become stronger or weaker with every subsequent interaction.

Another conceptualization focuses on meaning as a phenomenon more closely connected to use. Here, the act of interaction signifies that meaning making took place, as this conceptualization emphasizes that people are always making sense of the artifacts they use (Krippendorff, 1989, 2006). Therefore, meaning has an axiomatic status and represents the essence of human centeredness, acknowledging that what drives interaction is the meaning-making activity. Meaning can, thus, be characterized as a semantic quality of an artifact that leads to pragmatic and emotional interaction (Medeiros, 2014). Mekler and Hornbæk (2019) summarize the components of meaning as related to connectedness (how it relates to the self and the world), purpose (sense of direction), coherence (the extent to which one is able to appropriate the meaning), resonance (how fitting the meaning is to the experience) and significance (whether meaning is consequential and important). They argue that these components can reveal the quality of interaction and direct the design practice accordingly. However, as meaning is tied to the context of use where interaction is taking place, it cannot be predicted (Almquist and Lupton, 2010; Krippendorff, 2006). This represents another important tenet in characterizing meaning. Therefore, the idea that meaning can be designed is considered inadequate because it presupposes that meaning is a quality that can be produced and added to artifacts and, consequently, is always interpreted in the same way. Sengers and Gaver (2006) advocate that the interpretative side of interaction is crucial for any evaluation; thus, users’ interpretations cannot be “controlled” by the design process. Instead, artifacts should be designed to allow and encourage those interpretations to arise in use. This approach suggests that meaning gives users incentives to engage according to their own interpretative framework.

These insights are significant in the context of service innovation from two aspects. First, they acknowledge that value cocreation entails some form of interpretation, which is always part of a user’s idiosyncratic sphere, unfolding in interaction. Meaning and value share a common conceptual ground that includes the following: interaction, context, institutional generation, emergence and idiosyncrasy (Kustrak Korper *et al.*, 2018). As new value cocreation is not possible without actors integrating resources and resources are contended to become in use (Edvardsson *et al.*, 2014), interpreting something as a resource upon which actors can engage to cocreate value necessitates the presence of meaning. This suggests that meaning encompasses the process of new value cocreation because it allows interactions to unfold among actors relating to resource integration and value cocreation.

Second, meaning has consequences for how value propositions are designed and adopted. As they are instrumental for resource integration, value propositions should be designed to enable interpretations that will stimulate interaction and enable new value cocreation. Although meaning cannot be directly observed, designing meaningful value propositions should entail understanding and interpretation of actors’ practices of use that can uncover their mental models, individual and shared competencies and institutionalized norms or what Krippendorff (2006) refers to as second-order understanding. This strongly corresponds to phenomenological views on value and innovation in S-D logic (Helkkula *et al.*, 2018; Jaakkola *et al.*, 2015).

In this paper, we posit that meaning manifests in interaction, characterizing it as an idiosyncratic, relational and guided by situational or contextual elements relating to the context of use (Krippendorff, 1989). Here, context is defined as the boundary within which artifacts can mean something (Krippendorff, 2006). Understanding that the contextual boundaries have changed will result in the interaction supported by the new meaning. To some extent, this supports Helkkula *et al.*'s (2012b) notion of value as experience explaining how value is always based on previous understandings of past or imagined experiences. Meaning cannot exist without human involvement, where possibilities and restrictions of interpretation are affected by the actors' direct perception of the environment (Gibson, 1986). The environment is perceived through affordances, which are defined as "perception of one's ability to do something with what is sensed" (Krippendorff, 2006, p. 43). Going back to resource integration, this can explain how resources become through meaning and interpretation because resources also require human agency to be recognized as useful or beneficial in a particular context (Peters *et al.*, 2014). Thus, meaning is relational, it emerges in use and it highlights the interconnectivity and significance of usage, artifacts and context, which are reinforced through interaction.

### **The role of meaning in service innovation**

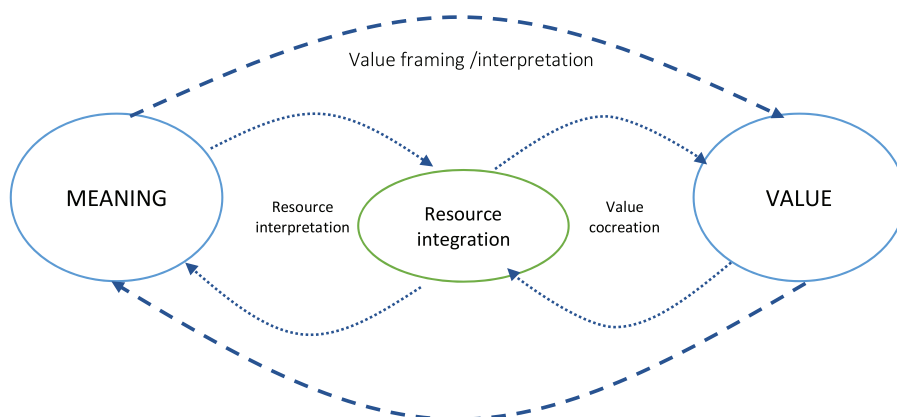
The previous sections delineated the theoretical building blocks of service innovation and the concept of meaning from the human-centered design domain. They represent the conceptual material used in this section to propose the integrative framework explaining the role of meaning in service innovation, especially its connection to resource integration and value cocreation. First, we explain the interpretative framework and the dynamics between meaning, resources and value. Then we provide an illustrative example referring to the role of meaning in service innovation, followed by a supporting representation contextualizing meaning in connection to new value propositions and new value formation.

#### *Meaning, resources and value: an interpretative framework*

This framework positions meaning, resources and value as the core components of service innovation and considers their interactive, use-driven and phenomenological nature (Almqvist and Lupton, 2010; Kleinaltenkamp *et al.*, 2012; Krippendorff, 1989; Vargo and Lusch, 2016). The core components are directed and reinforced through the process of resource integration and value cocreation. They also frame the interpretative dynamics pointing to the role of meaning for resource interpretation as a way of resources becoming, which precedes the value cocreation (Sengers and Gaver, 2006). Following the premise that resources become in use (Edvardsson *et al.*, 2014), this framework points to the meaning and meaning-making practices as an underlying mechanism enabling value cocreation. It also shows the relationship of meaning to the phenomenological aspect of new value formation, which is essential in understanding how service innovation becomes adopted (Snyder *et al.*, 2016). As meaning is both phenomenologically dependent on individual mental models and interactively established through social contexts and practices, focusing on the dynamics of meaning, resources and value is essential for understanding how service innovation is both created and adopted.

As Figure 1 shows, all the interactions between the elements within this conceptual framework are represented in continuous loops that point to the phenomenological and codependent nature of the main concepts. First, the outer loop points to the interrelationship between meaning and value, while the two supporting loops represent the specific practices of meaning and value related to resource integration. This outer loop reveals that although value is considered to be meaning laden (Vargo and Lusch, 2008), meaning and value are two





**Figure 1.**  
Conceptual dynamics  
of meaning and value

different concepts with complementary roles in service innovation. For new value to emerge and interaction to be established as value cocreating, there are interactive instances that precede it – namely, resource integration that drives value cocreation. However, meaning frames what actors perceive as valuable, facilitating the resource integration and value cocreation, while value formation reinforces the connection to meaning. The outer loop implies that meaning precedes value formation and should be of central concern when designing value propositions. Second, the inner loops point to resource integration as a main element in new value formation (Kleinaltenkamp *et al.*, 2012). Although research has established that resource integration drives value cocreation (Edvardsson *et al.*, 2014), this framework highlights resource interpretation as a process that explains how resources become through meaning. When actors decide to integrate resources, they engage in a form of interaction between their knowledge and competencies for value cocreation. The fact that interaction is taking place indicates that the actors were able to interpret resources as meaningful.

Although the fundamental premise of S-D logic is that resources become (Vargo and Lusch, 2016), how resources come to be remains unclear. Meaning can be considered a complementary concept that explains what drives the necessary interaction for resource integration (Peters *et al.*, 2014). This is what the loop between resource integration and meaning aims to explain. Through meaning, resources become by being interpreted by the actors as meaningful for a particular use and within a particular context that represents the boundaries of intelligible interaction (Krippendorff, 2006). As resources depend on human capability to act (Peters *et al.*, 2014), meaning drives the interpretative process of resource integration that precedes value cocreation. This indicates that resource interpretation is essential for understanding how resources can be integrated – that is, why actors interpret something as a resource in the first place. A person’s knowledge of engaging with smart home technology will not be seen as a resource unless they interpret it as a resource, meaning that they understand how they can cocreate value with the new technologies. Moreover, they will not engage with the value proposition unless the potential for value cocreation has a meaning. As such, meaning makes resources become through the interpretation of their “usefulness” in a particular context and makes them suitable for integration. Hence, interpretation precedes and enables resource integration, which consequently enables value cocreation, presented in a loop between value and resource integration. Only when resources are interpreted, value cocreation can take place. Furthermore, the phenomenological value that is an outcome of value cocreation depends on the meaning based on which the resources were integrated.

Therefore, the relationship between meaning and value integrates smaller interpretative layers. Meaning frames what is valuable, but what is valuable also reinforces the meaning that affects all ongoing dynamic relationships in the framework.

Thus, understanding how and why actors interact and engage in the processes of resource integration and value cocreation cannot be fully understood without addressing the concept of meaning. Whether a particular interaction was valuable and value was cocreated can be evaluated only after the experience of interaction formed in use (Foglieni and Holmlid, 2017). This framework shows that users will engage in interaction along the process of resource integration and value cocreation if it makes sense. Whether something is meaningful is understood before the actual interaction and experience take place. Therefore, meaning can be seen as an incentive to act and interact that leads to resource integration.

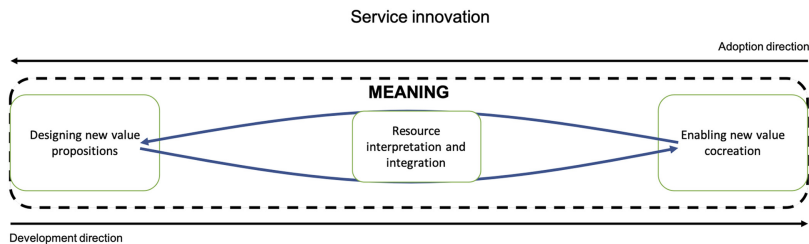
*Meaning in service innovation: an illustrative example*

The dynamic displayed in Figure 1 enables a broader phenomenological view of value cocreation, where meaning guides how resources become how are they integrated and how they shape interactive value formation. Meaning can also change how resources are interpreted, which leads to new resource recombination. Hence, positioning meaning as an integral part of resource integration and the value cocreation loop can contribute to a new phenomenological perspective on service innovation within S-D logic (Helkkula et al., 2018; Lusch and Nambisan, 2015).

Understanding the underlying process dynamics between meaning, resources and value is important for considering implications for service innovation, both in how it is developed and how it is adopted. Following the underlying dynamics presented in the previous framework, Figure 2 represents the role of meaning in service innovation on a broader level, focusing on how meaning frames value proposition, resource interpretation and new value cocreation, which are important both for the development and adoption of service innovation.

Value propositions are the starting point of service innovation from the service provider perspective since they become instrumental in resource integration and new value cocreation (Skälén et al., 2015). This represents, on the one hand, the development direction of service innovation, which is motivated by the providers' sphere, to integrate resources and cocreate value with other actors. On the other hand, new value cocreation will emerge if actors interpret resources and value propositions as meaningful to engage with them. This represents the adoption direction. Both directions are relevant for service innovation.

When Uber entered the shared transportation market, it offered an online platform that functionally responded to the need for personal transportation. Although the company has not used any disruptive technology, its service actually disrupted the meaning of transportation. Existing resources were reinterpreted through new practices enabled by technology. Uber, therefore, represented a breakthrough service innovation, although there were not only taxi services already in the market but also services using similar technologies.



**Figure 2.**  
Understanding  
meaning in service  
innovation

Uber is, consequently, not a breakthrough technological innovation but an innovation of meaning in the value proposition of personal transportation. At a broader level, Uber not only used existing technologies as a resource but also reconfigured other operand and operant resources in such a way that actors could have interpreted them as meaningful. What these reconfigured resources created was a new value proposition that enabled a new interpretation of resources. This change of meaning also resulted in reframing of value. Once established, new meaning continued to be reinforced directly through the dynamics of value experienced around interaction and usage. This perspective on innovation puts the phenomenological aspect of newness into the focus of service innovation and acknowledges the interpretative relevance of the framework. It also points to the role of meaning in service innovation both in terms of designing new value propositions and enabling new value cocreation through the novel interpretation and reconfiguration of resources.

Representation in [Figure 2](#) posits meaning as encompassing the design of value propositions that will influence how resources are interpreted and integrated and, subsequently, how this will enable new value cocreation. From this perspective, understanding meaning from a human-centered perspective can be a starting point for service innovation because it will influence the interpretation of resources that are integrated during a particular use. For something to be seen as a resource, it must be interpreted as such, making meaning an important aspect of service innovation for both its development and adoption.

## Discussion

This paper introduces the concept of meaning from a human-centered design perspective and argues that it represents an important but missing link in understanding the mechanisms of new value cocreation – especially its phenomenological and interpretative aspects ([Helkkula et al., 2018](#); [Snyder et al., 2016](#)). Understanding service innovation as new value cocreation informed by S-D logic, this paper delineates its core building blocks, positioning the concept of meaning among them, and points to the research challenges related to understanding underlying mechanisms connected to the interactive process of new value formation ([Echeverri and Skålén, 2011](#); [Skålén et al., 2015](#)). We argue that the fundamental interconnectedness of meaning arising in interaction brings forward an interpretative lens. This means that people interact with artifacts if they make sense to them ([Krippendorff, 2006](#)), which becomes essential for understanding interactive value formation. This is relevant for further theoretical development of service innovation informed by S-D logic, especially in connection to designing value propositions and understanding processes of resource integration and new value cocreation. This conceptual paper contributes to S-D logic and service innovation in the following ways.

First, the conceptual framework presented in [Figure 1](#) posits that meaning frames value formation on a broad level and drives the interpretative processes related to resource integration and value cocreation. It makes explicit the relationship between meaning, resource integration and value cocreation that is necessary for understanding the mechanisms of how and why new value emerges, which are often assumed. Based on the conceptualization from human-centered design, the concept of meaning is defined as idiosyncratic, relational, context driven and tied to interaction, thus influencing actors' incentives to engage in any form of interactive practice ([Krippendorff, 1989](#); [Medeiros, 2014](#)). Meaning provides the interpretive lens to understand how value is interactively formed and how resources become in use through the process of resource interpretation. Without meaning enabling resources interpretation, their integration as a driver of new value cocreation cannot ensue. Understanding the role of meaning presented in [Figure 1](#) contributes to the phenomenological understanding of value and value cocreation, where resource

integration is also central to how phenomenological value is cocreated (Kleinaltenkamp *et al.*, 2012). Hence, meaning enriches the understanding of how resources become in the value cocreation process through its role in resource interpretation. This answers Peters *et al.* (2014), who call for advancing the knowledge of resource integration by exploring how individuals create meaning while integrating resources. Due to the nature of resources that become through use and interaction, the interpretative lens that meaning brings is necessary for resources to be recognized as such by an actor in a given situation. Meaning also enriches the phenomenological understanding of how new value is formed, emphasizing the interdependent and interactive dynamic between these two concepts. It implies that all interaction among actors, whether seen as resource integration or value cocreation, is a manifestation of meaning that determines the formation and appropriation of new value. Therefore, this contribution adds to the current body of knowledge that seeks to understand specific properties of concepts that are important for service innovation, such as value cocreation and resource integration within S-D logic (Findsrud and Dehling, 2019; Koskela-Houtari and Vargo, 2016; Laud and Karpen, 2017; Peters *et al.*, 2014).

Second, the concept of meaning emphasizes a human-centered perspective in service innovation. Meaning brings forward the interpretative lens for understanding resources and practices related to the development of new value propositions since engagement with new value propositions will depend on how actors have interpreted them. Developing innovative value propositions, especially in the technology-infused service landscape that challenges traditional market roles, requires service providers to understand value as a consequence of meaningful interactions that drives cocreation among multiple actors. When developing innovative value propositions, service providers should focus on discovering how and interpreting why actors engage in certain individual or institutional service practices to uncover what makes them meaningful. Understanding how actors interpret their own interaction with various artifacts enables service providers to integrate a human-centered perspective in service innovation. Thus, approaching service innovation by understanding the role of meaning in designing value propositions can have important implications, especially for technology-enabled service innovation, where human-centered understanding is often lacking (Kustrak Korper *et al.*, 2020). Relating to value propositions, and as presented in Figure 2, resource interpretation can also facilitate a new understanding of resources addressing service innovation as a recombination of novel resources (Lusch and Nambisan, 2015). As such, changing what resources mean opens up new possibilities for interpreting resources, recombining them in a new way and resulting in new value cocreation. Since value propositions are instrumental for resource integration, conceptualizing the role of meaning in this process is aimed at providing further theoretical insight to explain cocreative practices relevant in designing value propositions (Payne *et al.*, 2017).

Finally, meaning seems to be presumed in S-D logic. The fundamental premise that value is phenomenologically formed by specific actors (Vargo and Lusch, 2004), combined with the current introduction of neo-institutional concepts (Koskela-Huotari *et al.*, 2016; Siltaloppi and Wieland, 2018), suggests that the cocreation of value may be axiomatic but that it also interacts with aspects that have not yet been clarified. While the phenomenological assertion of S-D logic directs attention to the individual and the accumulated experiences of the individual within norms and contexts, the institutional concepts direct attention to a system-based understanding where the enactment of norms and formative structures acts as framing. Both imply that as actors integrate resources for value cocreation, there are accumulated experiences, norms and enacted structures that precede any resource integrative action. Therefore, we see our conceptual integration (MacInnis, 2011) as a fruitful way to open up new research avenues and provide grounds for multidisciplinary contributions toward understanding service innovation, especially in human-centered service systems (Maglio *et al.*, 2015). We see the intersection of service innovation and service

design as especially relevant for further empirical development based on the proposed integrative framework from [Figure 1](#). Meaning is a central concept in human-centered design, and human-centered principles represent the main tenets of service design ([Karpen et al., 2017](#)). Service design has been established as a research area that can contribute and complement service innovation in complex service systems, especially in addressing complexities surrounding the emergence of new forms of value creation through its human-centered approach (see, e.g. [Holmlid et al., 2017](#); [Patrício et al., 2018](#); [Wetter-Edman et al., 2014](#); [Yu and Sangiorgi, 2018](#)). Therefore, we contend that empirical explorations of the meaning concept for service innovation, leading to multidisciplinary contributions, should ensue in the intersection with service design because it has a set of established human-centered and cocreative principles, methods and techniques for working with meaning ([Čaić et al., 2019](#); [Wetter-Edman et al., 2014, 2018](#)).

### Conclusion and future research directions

This paper delineates the role of meaning and integrates it with the main building blocks of service innovation, opening up new pathways for further exploration of this phenomenon and its multidisciplinary contribution. According to the human-centered perspective, people make sense of things and use them according to their interpretation in a particular context. This paper argues that to understand mechanisms of service innovation and how actors engage with value propositions, integrate resources and cocreate new value, the concept of meaning should be considered in its entirety, without limiting its role to the quality of value ([Vargo and Lusch, 2008](#)) or as part of institutionalization processes ([Edvardsson and Tronvoll, 2013](#)). The concept of meaning can shed light on why people engage in interactions in the first place and how they evaluate the outcomes of those experiences. This conceptualization of meaning can bring new insights to the understanding of new value cocreation in S-D logic. Meaning, much like value, is not viewed as a property that can be added and delivered to the objectified recipient. Instead, its creation requires interaction and is always phenomenological and contextual. For service providers, understanding the importance of meaning for actors' value cocreation can be an important step in designing value propositions for successful innovation outcomes. The concept of meaning resonates strongly with the main tenets of S-D logic but can also be seen as a point of departure for questioning the theoretical assumptions relating to value formation, resource integration and service innovation. Although questioning these assumptions is outside the scope of this paper, we argue that the concept of meaning should nevertheless be introduced as an integral part of the S-D logic discourse.

This paper has some limitations. The conceptual framework presented in this paper focuses on exploring meaning primarily as a phenomenological concept relating to value and resources. Although experience is an important tenet of the phenomenological perspective of service innovation ([Helkkula et al., 2018](#); [Peñaloza and Mish, 2011](#)), further elaboration is beyond the scope of this paper. Thus, further theoretical clarification of the role of experience could be beneficial in strengthening the conceptual potential of the presented framework. Additionally, the integrative framework that we present is a first step that can be used empirically to explore this dynamic in different contexts. The paper highlights viewing context as a boundary in framing the dynamics of meaning and value, but it does not address the interplay between meaning, value and context in detail. Context is an important element in discussions of value cocreation and especially customer experience ([Akaka et al., 2013, 2015](#); [Chandler and Vargo, 2011](#); [Voss et al., 2016](#)). Thus, using this conceptual framework to study the influence of contextual boundaries could provide a more fine-grained conceptual understanding of the interplay between the main concepts. We address some of these limitations by highlighting future research directions in the following paragraphs.

Although this paper is conceptual with the aim of making theoretical contributions, to motivate empirical research, we provide future research directions guided by the selection of research questions. The future research directions focus on empirical opportunities for exploring the role of meaning in service innovation in designing value propositions, integrating resources and cocreating new value. Additionally, we see the future research directions as a platform that can gather both the service and design research communities with the aim to address the service innovation phenomenon through a multidisciplinary lens. The research questions are presented in [Table 1](#).

The table presents research questions that can be addressed empirically to support the conceptualization presented in [Figures 1](#) and [2](#). This list is not exhaustive but represents possible research directions. The future research directions are divided according to the central building blocks of service innovation: value propositions, resource integration and new value cocreation. Although these building blocks are interconnected and not mutually exclusive, we would like to emphasize some specificities.

Understanding the role of meaning in designing innovative value propositions should focus on how service providers can ensure that their value propositions are meaningful to other actors in the service system. This raises the question of how service providers can uncover what is meaningful during value proposition design, even though they cannot control how actors will interpret the value proposition. This is especially important if the context is complex and involves many actors. We see service design as an approach that can help. Although research into the development of innovative value propositions emphasizes the importance of cocreative practices and actors' inclusion in developing value propositions ([Skålén et al., 2015](#)), these are still considered instances that are dominantly controlled by the service providers. However, this control is often overemphasized, resulting in value

The role of meaning in service innovation	Research questions
Meaning and value propositions	<ol style="list-style-type: none"> <li>(1) How can service providers use the concept of meaning to design value propositions that will engage actors in interaction and to what extent is this process contingent to the complexity of the service system?</li> <li>(2) How can service design, through its human-centered principles and methods, facilitate the creation of meaningful value propositions?</li> <li>(3) What service design tools and techniques are useful in uncovering the future meaningfulness of new value propositions?</li> <li>(4) How can meaning be operationalized to explain the combination of cocreative practices and resources tied to new value propositions?</li> </ol>
Meaning and resource integration	<ol style="list-style-type: none"> <li>(1) What is the role of individual and collective meaning for resource integration and to what extent does this affect how actors interpret novel or existing resources?</li> <li>(2) What are the different ways of how meaning influences resource integration and to what extent can this influence be generalized across different contexts?</li> <li>(3) How is resource interpretation realized in operand and operant resources?</li> <li>(4) To what extent can resource interpretation influence deliberate orchestration of resources across the service system and how can service design assist in orchestration?</li> </ol>
Meaning and new value cocreation	<ol style="list-style-type: none"> <li>(1) How can emergence of new value be empirically explained through meaning and how does this differ on individual or a system level?</li> <li>(2) What is the role of meaning in value codestruction and to what extent can it hinder service innovation?</li> </ol>

**Table 1.**  
Future research directions

propositions that are too far away from what makes sense to their potential users. Understanding meaning directs a more holistic perspective on value proposition design because it requires service providers to become more attuned in observing actors' practices in a given context to be able to interpret the implied meaning. Thus, we argue that design's reflective practice can provide generative tools and techniques to uncover how meaning manifests in the use of different artifacts, from everyday products to language and discourse used to engage with a service (Čaić *et al.*, 2019; Secomandi and Snelders, 2011). The richness in understanding the everyday context of use, which is nevertheless bound by different institutional practices, can be systematized and communicated through service design. Therefore, researchers should not only seek to operationalize meaning for value proposition design but focus on how service design can facilitate this.

As we show in Figure 1, meaning is tied to use and interaction and influences the resource interpretation that leads to resource integration. Although there is a growing body of knowledge aiming to understand different facets of resource integration (Peters *et al.*, 2014), we see the importance of empirically addressing the interpretative aspect of resource integration. This can be especially interesting for differentiating operand and operant resources and understanding the role that meaning plays in their coordination, which should result in new value cocreation. Additionally, as novel interpretation of existing resources is tied to resource recombination and service innovation, it would be useful to explore what individual or institutional contextual elements drive this process.

Finally, uncovering the dynamics of meaning and value shows that these are complementary but different concepts. For an interaction to be valuable, it must be meaningful. Exploring meaning-specific elements in new value cocreation could help in explicating further these interconnected dynamics. More importantly, understanding if and to what extent meaning hinders service innovation or contributes to value codestruction could make a useful contribution to the elusive phenomenon of service innovation (Gustafsson *et al.*, 2020).

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### Further reading

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