

ACTOR ENGAGEMENT IN NETWORKS: DEFINING THE CONCEPTUAL DOMAIN

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ABSTRACT

Considerable managerial and academic interest has made engagement a key priority in marketing and service research, spurring a rapidly increasing body of literature on this topic. Academic research initially explored customer engagement (CE) and customer engagement behavior (CEB) within the firm-customer dyad. Recent developments suggest a need to broaden the conceptual domain of CE not only from the focal subject of customers/consumers to a general actor-to-actor perspective but also from the firm-customer dyad to relationships among multiple actors in service ecosystems. Hence, the purpose of this paper is to bring a broadened definition to the conceptual domain of actor engagement (AE) in networks. Our theorizing process adopted a propositional conceptual approach that built on CE research and was guided by the general theoretical perspective of service-dominant (S-D) logic. The critical contribution of the paper lies in its systematic development of the conceptual domain of AE and the potential this development has for guiding knowledge development and cross-fertilization in various research fields, including customer, work, citizen, and business engagement. We provide a definition of AE and five fundamental propositions that embody a broader network perspective of engagement and conclude by discussing an agenda for future research that illustrates its managerial relevance.

Keywords: actor engagement, customer engagement, connectedness, networks, service ecosystems

INTRODUCTION

During the last 15 years, business practitioners have paid increasing attention to the role of “engagement” in cocreating customer experience (see, for example, Malhotra, Malhotra, and See 2013; Marketing Science Institute 2014). Academic research associating the concept with enhanced customer commitment and loyalty (Vivek, Beatty, and Morgan 2012), customer-brand connections (Brodie et al. 2013; Hollebeek, Glynn, and Brodie 2014), and, ultimately, enhanced corporate performance, including sales growth, superior competitive advantage, and profitability (Kumar and Pansari 2016; Pansari and Kumar 2016) has further accentuated the importance of engagement. This increased focus on engagement has helped align academic and practitioner interests, especially in terms of understanding the concept.

Initial academic work exploring the firm-customer dyad defined customer engagement (CE) as the customer’s cognitive and emotional absorption resulting from *interactive experiences with the firm or a brand* (Brodie et al. 2011; Vivek, Beatty, and Morgan 2012) and manifesting in customer engagement behaviors (CEBs) that have a firm or brand focus (e.g., Kumar et al. 2010; van Doorn et al. 2010). However, contemporary business environments, such as the collaborative economy, have highlighted the shortcomings of this dyadic firm-customer perspective. Traditional customer-firm roles do not apply in such environments when, for example, individuals provide and use peer-to-peer services. Also, platforms such as Tripadvisor, Turo, and Uber have brought transparency to engagement on multiple levels of aggregation. Using Uber as an example, we can see that engagement occurs not only on a micro-level between individual peers (i.e., Uber driver and Uber guest) but also on a meso-level between the collective of Uber guests (i.e., Uber review system) and individual peers. Recent engagement research reflecting these dynamic network structures emphasizes the *reciprocal, social, and collective nature of engagement beyond a dyadic*

interaction (e.g., Alexander, Jaakkola, and Hollebeek 2018; Chandler and Lusch 2015; Jaakkola and Alexander 2014) and *multiple types of actors beyond just customers*, such as citizens (Bowden et al. 2016), employees (Kumar and Pansari 2016, 2016), business partners (Reinartz and Berkmann 2018; Jaakkola and Aarikka-Stenroos, 2018; Vivek, Vivek, and Beatty 2016), and even non-human actors (Storbacka et al. 2016).

Although highly relevant, this emerging stream of engagement literature addressing versatile actors in networks is fragmented and has resulted in conceptual misalignment with existing conceptualizations of customer engagement that do not closely fit these contexts. There is, therefore, a need to broaden the conceptual domain of customer engagement through: first, moving the focus from one centered primarily on customers/consumers to one that includes a general *actor-to-actor* perspective (Vargo and Lusch 2011) and accommodates a variety of versatile actor roles; and second, moving the focus from one centered on dyadic firm-customer relationships to one that embraces *network relationships* among versatile actors in service ecosystems.

An actor-to-actor orientation recognizes that all actors are resource-integrating, service-providing “enterprises” that have in common, that they are all cocreating value in service ecosystems (Vargo and Lusch 2011, 2017). For engagement research, this view necessitates capturing the conceptual commonalities of engagement across actor contexts so that the more extensive networks surrounding the actors can be identified. Although the actor-to-actor orientation resonates with, for example, business-to-business literature (Jaakkola and Aarikka-Stenroos 2018; Vargo and Lusch 2011), the need to fully elaborate cross-fertilization of engagement and actor orientation remains. In addition, despite recent research on actor engagement (Alexander et al. 2018; Jaakkola, Conduit, and Fehrer 2018; Storbacka et al. 2016),

the conceptual underpinnings have yet to be systematically defined. For these reasons, our *purpose in this paper is to present a broadened conceptual domain of actor engagement (AE) in networks.*

We began our work by adopting a propositional conceptual approach (Cornelissen 2017) which follows the theorizing process that Brodie et al. (2011) used to define the conceptual domain of CE. We systematically combined developments in the engagement literature with developments in service-dominant (S-D) logic (Vargo and Lusch 2004, 2008, 2016) to create guidelines for AE. We chose S-D logic not only because it is foundational to understanding actor interactions in networks but also because it is the most commonly used theoretical approach in service research (Benoit et al. 2017). S-D logic aligns with both recent CE research (e.g., Hollebeek, Srivastava, and Chen 2016; Kumar et al. 2017) and recent AE research (e.g., Chandler and Lusch 2015; Jaakkola & Aarikka-Stenroos, 2018; Storbacka et al. 2016). We then drew on the actor-to-actor orientation provided by S-D logic to develop five fundamental propositions (FPs) that define the conceptual domain of AE. This theorizing process led us to define AE as *a dynamic and iterative process that reflects actors' dispositions to invest resources in their interactions with other connected actors in a service system.*

In keeping with the highly cited work by Brodie et al. (2011) and van Doorn et al. (2010) that guided empirical refinement of conceptualizations and operationalization of CE and CEB, our broadened conceptualization of AE offers strong theoretical foundations. More specifically, it equips the domain of service and marketing research with an *integrated conceptualization of AE* applicable to business-to-business markets, business-to-customer markets, (social) entrepreneurial market structures, and the blurred boundaries across all of these conventional market views. In addition, our future-orientated understanding of AE addresses phenomena relevant for contemporary business environments, such as the rise of the collaborative economy, increasing

connectivity and sociality among actors, blurring of traditional economic roles, and the emergence of new types of organizations such as platform businesses.

Our paper proceeds as follows. First, we identify key developments in the literature on engagement research, including contributions to CE and AE. We then introduce S-D logic and describe how it guided the development of our new fundamental propositions of AE. We end with a discussion of the implications of our work. This includes an examination of how CE and AE research can complement each other and suggestions for future research.

ENGAGEMENT RESEARCH

Our review of the literature revealed two key streams of engagement research. The first, *customer engagement research*, adopts a predominantly dyadic firm-customer relationships perspective, and the corpus of articles on “customer engagement,” “consumer engagement,” and “brand engagement” has developed substantially. Scopus analysis identified 832 such articles published between 2005 and 2018. The second stream of research, which we have labeled *emerging actor engagement research*, focuses on engagement in service ecosystems by many different types of actors. In this research stream, CE represents a subset of the broader AE concept. Table 1 presents selected key contributions informing the development of CE and AE research. Note that most of the articles contribute to both streams of research, thus demonstrating the emergence of AE literature from developments in the CE literature.

[Take in Table 1 about here]

Customer Engagement Research

Academic research on engagement in the marketing and service literature emerged around 2009/2010. As evident from Table 1, researchers initially attempted to conceptualize customer

engagement in terms of customers' emotional responses to consumption situations, and customer-brand relationships based on something more powerful than satisfaction and thus having significant managerial relevance (Bowden 2009). The Marketing Science Institute's inclusion of engagement as a key research priority in 2010 and coverage of CE in special issues of the *Journal of Service Research* (2010, 2011) led to a rapid increase in published research directed towards conceptualizing and later measuring CE as a phenomenon occurring in dyadic relationships between customers and firms/brands. Initial theoretical understandings of CE focused on the behavioral manifestations of engagement, with CEB accordingly defined as voluntary, firm-focused customer behaviors – such as writing reviews or providing word-of-mouth recommendations – centered on the focal firm but going beyond the core purchase or servicing process (van Doorn et al. 2010).

By building on the CEB approach and drawing on both the expanded domain of relationship marketing and theoretical understandings of engagement that have conceptual roots in other literature, Brodie et al. (2011) developed a more comprehensive conceptualization underpinned by five propositions. The work led Brodie and his colleagues to define CE as a psychological state that occurs through interactive, co-created experiences with a firm or a brand and is manifested in focal engagement behaviors. Scholars have subsequently further detailed the conceptual distinctiveness of CE vis-à-vis other relational concepts such as loyalty, satisfaction, trust, and commitment (Pansari and Kumar 2016), and other behavioral concepts including customer citizenship and extra-role behaviors (Jaakkola and Alexander 2014). Managerial applications and the operationalization of the concept have also advanced. For example, by refining Brodie et al.'s (2011) five fundamental propositions, Hollebeek, Srivastava, and Chen (2016) defined the conceptual domain of CE within the context of customer relationship management. Other studies

have empirically identified processes of consumer engagement (Brodie et al. 2013) and types of CEB (Jaakkola and Alexander 2014).

Brodie et al.'s (2011) delineation of the multidimensional nature of engagement has also enabled researchers to develop nuanced understandings of the dimensions of engagement (Dessart, Veloutsou, and Morgan-Thomas 2015), and multidimensional scales for measuring a customer's level of engagement with or disposition towards a brand (Dwivedi 2015; Hollebeek et al. 2014). Some of these scales offer a more integrated perspective of engagement because they include items that measure engagement disposition, engagement behavior, and the social dimension of engagement (Baldus, Voorhees, and Calantone 2015; Vivek et al. 2014).

Because CE research views engagement as an enhancement of the firm-customer relationship beyond loyalty and commitment, it accentuates the important need for firms to influence and manage CE (Pansari and Kumar 2016). And because CE behaviours contribute to a firm's marketing functions directly or indirectly (Harmeling et al. 2016; Verleye, Gemmel, and Rangarajan 2014), research has explored how firms can embed these behaviors into their customer-relationship-management processes to create value (Hollebeek, Srivastava, and Chen 2016; Kumar et al. 2010; Verhoef, Reinartz, and Krafft 2010).

Emerging Research on Actor Engagement

The effort to broadening the conceptual domain of AE arose out of an acknowledgement that engagement occurs among different types of *versatile actors*, not just customers, and consumers. *Actors* can be defined as humans or collections of humans, such as organizations, who are involved in the *logic of human exchange systems* – including economy and society – and who are typically categorized according to their *discrete roles and functions* (Lusch and Vargo 2014, p.102). An

actor-to-actor orientation recognizes that regardless of their roles, all these actors – including the customer – are resource-integrating, service-providing “enterprises” (Vargo and Lusch 2011, 2017), that engage in various different contexts. Jaakkola and Alexander (2014) for example illustrate, when collective actors such as governmental and non-profit agencies support focal consumer engagement and contribute towards the same engagement object, they are, in essence, manifesting organizational or business actor engagement.

This and other studies have broadened the scope of engagement research because they engender discussions of CE in terms of individuals and collectives (Gill, Sridhar, and Grewal 2017; Reinartz and Berkmann 2018). Bowden et al. (2016), for example, discuss citizen engagement, while Kumar and Pansari (2016) highlight the role of employee engagement in driving CE and ultimately firm performance. Reinartz and Berkmann (2018), along with Vivek, Vivek, and Beatty (2016), provide conceptual analyses of the role of engagement in business-to-business settings, while Jaakkola and Aarikka-Stenroos (2018) examine the value outcomes of AE behavior in triadic business relationships. Finally, Storbacka et al. (2016) argue that engaging actors should include non-human actors, that is, machines or combinations of humans and machines to fully cover value creation in service systems.

The second line of conceptual expansion apparent in extant literature concerns the network surrounding the firm-customer dyad. Although the social-interaction aspect of engagement was acknowledged from the early period of CE research (e.g., Calder, Malthouse, and Schaedel 2009), the role of this aspect in broader networks was only under the spotlight some years later (see Table 1). Verleye, Gemmel, and Rangarajan (2014) show that a customer’s immediate network of actors affects CEB, while Dessart, Veloutsou, and Morgan-Thomas (2015) indicate that a community’s characteristics affect customers’ intentions to engage. Other studies have found that the

surrounding network also affects, and is affected by, the outcomes of engagement. For example, engagement in online brand communities can influence customers' positively and negatively valenced engagement with the brand (Bowden et al. 2017) and their perceptions of a marketing strategy (Nguyen et al. 2016). Engaged customers, furthermore, influence one another's value outcomes and the development of the community itself through interactive engagement processes such as "sharing," "advocating," and "socializing" (Brodie et al. 2013).

The notion of *connectedness* among actors in the network and the broader service ecosystem has thus become central to the domain of engagement research (Fehrer et al. 2018) and led Chandler and Lusch (2015) to propose that the connections surrounding an actor's experience in the service ecosystem contribute to the framing of an *engagement disposition*, that is, the inclination of the actor to take up ideas and interests. Alexander et al. (2018) note that this disposition is affected by multiple contexts and the *institutions* prevalent in the service ecosystem in which the actor is embedded.

Jaakkola and Alexander (2014) laid out the conceptual connection between engagement and value creation in service ecosystems when they proposed that CEBs trigger broader value cocreation processes in the service ecosystem because these induce interaction and resource integration beyond the firm-customer dyad. This increasingly systemic view of CE has unraveled the iterative and network-centered nature of CE antecedents, behavioral manifestations, and consequences. As Brodie et al. (2013) and Jaakkola and Alexander (2014) have found, positive behavioral outcomes for focal actors intensify those actors' internal dispositions and their external connections with other actors. When CEB serves as a catalyst, it means that customers have a direct influence on the resources, perceptions, preferences, or actions of other customers, which may, in turn, contribute to the initiation, enhancement, or deterioration of relationships among

various actors in the network (Jaakkola and Alexander 2014). Li, Juric, and Brodie (2017) elaborated on this dynamic process after examining how engagement evolves and spreads in networks. Their insights indicate that engagement emerges through *iterations of service relationships* in the ecosystem. Storbacka et al. (2016), and likewise Breidbach and Brodie (2017), argue that *engagement platforms* are essential intermediaries in the AE process because they facilitate and orchestrate connections among multiple actors in the service ecosystem.

TOWARDS A BROADER PERSPECTIVE OF ACTOR ENGAGEMENT

The above-cited literature that perceives CE as one type of AE that focuses on the dyadic relationship between customers and firms provides a foundation for a broader perspective of AE, one that embraces networks involving multiple actor interactions. Whereas, for example, CE or work engagement (see Schaufeli and Salanova 2002) plays out on intra- and inter-personal levels (micro-level), AE reflects the interplay between various levels of aggregation (micro, meso, and macro). Figure 1. illustrates these interrelated levels. In innovation networks, for example, it becomes evident, that firms engage with other firms. On a lower level of aggregation, these firms consist of various engaged employees who engage with their customers. Entrepreneurs engage in entrepreneurial networks, working with councils, the government, volunteers, and customers, and could also be part of an innovation network. Networks on a higher level of aggregation, such as the collaborative economy, see engagement processes unfolding between public policy-makers, social collectives and platform providers.

These illustrated network structures are not fixed but are relative, which means we can investigate, say, the collaborative economy from the perspective of the macro-level (collectives, platforms, and policy-makers), the micro-level (between individual service providers and

customers), and the meso-level of analysis (where we might see the engagement behaviors of individuals linking in with the engagement practices of social collectives).

[Take in Figure 1 about here]

Identifying and appreciating the roles of reference groups and network connections is critical with respect to balancing multiple actor roles and understanding the process of engagement. However, research conducted in accordance with this systemic perspective and directed towards identifying general actor properties of engagement is still in its infancy, which is why we've endeavored in this paper to introduce a comprehensive systemic understanding of AE that focuses on a plethora of versatile actors and the multiple dynamic relationships among them.

Defining the Conceptual Domain of Actor Engagement

To ground the conceptual domain of AE theoretically, we drew on extant engagement research and used insights from it to inform our second stage of theorizing, which we conducted with the aid of a systemic lens, S-D logic. Because S-D logic provides a means of rethinking the nature of markets and societies, it directs study towards networks and interdependencies between versatile actors (Vargo and Lusch 2016). This type of systemic perspective proved foundational to our effort to understand the reciprocal, social, and collective nature of engagement beyond the dyad (see Table 2).

[Take in Table 2 about here]

Early in the evolution of S-D logic, Vargo and Lusch (2011) recognized the need to consider a set of social and economic actors that extended beyond the traditional roles of producer and consumer and embraced individuals, households, firms, and other actors. In short, they advised the adoption of an actor-to-actor orientation. S-D logic is grounded in the premise that all actors

depend on one another's capabilities in a complex system (Vargo 2011). Actors exercise agency to invest their resources in ways that benefit themselves and/or other actors and so improve mutual wellbeing (Taillard, Peters, and Pels 2016). Actors can also coordinate their efforts to improve their resource integration and ultimately shape their service ecosystem (Taillard, Peters, and Pels 2016). The implication for scholars engaged with the conceptual domain of AE is the need to consider how actors' dispositions relate to actors' behaviors and to acknowledge actors' connections to other actors. Thus, we recognize that *actors (individuals and non-individuals) are inseparable from their actions and connections.*

In their systematic review of the S-D logic literature, Wilden et al. (2017) state that the most significant shift in S-D logic in recent years is the emergence of research centered on the notion of the service ecosystem. This literature recognizes that actors interact in a complex system of service-for-service exchange that is relatively self-contained and self-adjusting (Lusch and Vargo 2014). The smallest service ecosystem involves an individual interacting with another; the largest comprises the global economy (Maglio and Spohrer 2008). A service ecosystem expands in accordance with dynamically developing relationships among actors involved in resource integration. Consequently, value – from an ecosystem perspective – can only emerge through the resource investments of multiple actors (Vargo and Lusch 2004). This perspective demonstrates an overall movement towards understanding dynamic service interactions and environments (Wilden et al. 2017). Consequently, within the conceptual understanding of AE, we need to recognize that *the process of AE and how value is cocreated through AE must be understood as emergent within dynamic and iterative relationships* among various actors.

Within a service ecosystem, actor interdependence results in both value co-creation and emergence (Taillard, Peters, and Pels 2016). Scholars such as Laud et al. (2015) have drawn on

social capital theory to examine the relational nature of these interdependencies and to further understand the nature of the embeddedness among actors in a network. However, the need for research designed to understand how actors' connectedness emerges and subsequently influences value cocreation activities and outcomes remains (Wilden et al. 2017). Because emergence explains how smaller units of connected actors form larger structures, the influence of connectedness among actors and the resulting emergence also needs to be considered within the dynamic AE process. Hence, *connectedness becomes a critical property of AE*.

When Wilden et al. (2017) identified the service ecosystem view as an emergent perspective, they also identified it as the most significant area for future S-D logic research. They furthermore argued for a greater understanding of the role of institutions and practices in the creation of phenomenological value within the service ecosystem. According to Scott (2001), institutions provide reliable structures for actors to operate in. Institutions can be both formal (e.g., the justice system) or informal (e.g., how people greet one another). Although institutions are generally stable and can be reproduced, they are capable of disruption and change. Institutions provide actors with cognitive "short-cuts" because they lessen the need for actors to assess and reassess every experience, action, and decision by allowing them to draw on institutionalized norms. These provide actors with security and certainty through heuristic pathways and social schemata (Vargo and Lusch 2016).

Actors thus operate, and *AE thus develops*, within a *broader institutional context* that includes other actors, such as individuals, groups, organizations, competitors, and regulators (Edvardsson et al. 2014; Koskela-Huotari and Vargo 2016). This broader institutional context is embedded in "nested systems" at micro-, meso- and/or macro-levels. These levels are interdependent, overlapping and perceptual – rather than absolute – depending on the purpose of

the service ecosystem (Giddens 1984). To sum up: *AE is embedded in an institutional context*, which is situated at multiple system-levels.

Assemblages of interdependent institutions, called institutional arrangements in S-D logic (Vargo and Lusch 2016, 2017), guide the manner in which actors operate within a relationship, organization, industry, market, or economy. For example, a formal institution such as an industry regulator shapes the way actors (e.g., firms) behave in an industry. Institutional arrangements, moreover, continuously guide and influence an actor's interpretation of value (Edvardsson, Tronvoll, and Gruber 2011): thus, the more actors share institutional arrangements, the greater the potential coordination benefit to all of them.

These institutional arrangements are not, however, given but are shaped by engaged actors. Institutional arrangements not only influence the way actors interact but also provide rule structures within which actors can change or even disrupt established (social) practices (Battilana and D'auanno 2009). The resulting new practices form new institutional arrangements. Practices thus can start on a dyadic level, form structures on other system levels, and come back to the initial dyad (Taillard, Peters, and Pels 2016; Vargo and Lusch 2016). Consequently, within the conceptual understanding of AE, we conclude that the *institutionalization of AE – that is, the (re)formation and deformation of AE practices – is essential for cocreating coordination benefits in a service ecosystem.*

Fundamental Propositions

During the third stage of our theorizing, we used the five guidelines from S-D logic to direct the conceptualization of the five fundamental propositions (FPs) for AE. When developing the FPs, we were adamant that they should be sufficiently broad in scope to provide new insight into the

conceptual distinctiveness between AE and CE. To address this, we combined forward-looking systemic thinking, that is, S-D logic, with the latest developments in the engagement literature while simultaneously revisiting *Brodie et al.'s (2011) original FPs*.

Our fourth stage of theorizing process saw us examining our newly developed FPs within the context of four companies, each of which uses a different business model (see Appendix, 1). These were the Food Assembly (a platform business), Under Armour, an incumbent business, Upwork (a knowledge-intensive business), and the St Vincent de Paul Society (a social enterprise).

Fundamental Proposition 1

Drawing on Brodie et al.'s (2011) original FP1: 'CE reflects a psychological state, which occurs by interactive customer experiences with a focal agent/object within specific service relationships,' it is important to understand actors' psychological states or dispositions to engage and how these dispositions occur and manifest. Because the term "disposition" applies to any actor, whether individual, social, human, non-human, or in a network (Chandler and Lusch, 2015; Storbacka et al. 2016), we consider it a more useful descriptor of an actor-to-actor orientation than the term "psychological state." From a network perspective, *actors (individuals and non-individuals) are inseparable from their actions and connections (first S-D logic guideline)*.

According to Chandler and Lusch (2015), "because each and every actor experience [within a service ecosystem] occurs in a specific time and place the connections surrounding the experience contribute to the framing of a psychological state or disposition" (p. 4). Engagement dispositions manifest in engagement behaviors, and it is through engagement behaviors that engagement affects connections to other actors (Alexander et al. 2018; Jaakkola and Alexander 2014; van Doorn et al. 2010).

Kevin Plank, the founder of Under Armour (Case 2, Appendix 1), has as his mantra: “Think like an entrepreneur. Create like an innovator. Perform like a teammate.” This engagement disposition is manifested through Under Armour’s engagement behaviors, such as inviting start-ups and business partners to connect and co-innovate. The firm opens its service ecosystem to reciprocal engagement among various versatile actors, including start-ups, students, customers, and even technology (e.g., IBM Watson’s cognitive computing technology).

Engagement behaviors represent the specific resource contributions, such as time, energy, and effort (Hollebeek, Srivastava, and Chen 2016), that actors bring to their interactions with other actors. These resource contributions go beyond what is elementary to transactional exchange (Alexander, et al. 2018) because they are driven by actors’ unique purposes and intentions (Jaakkola and Alexander 2014) and are determined by connections with other actors (Chandler and Lusch 2015). Our first AE FP serves as a summative statement of this discussion:

Fundamental Proposition 1: AE dispositions occur through connections with other actors that lead to resource contributions beyond what is elementary to the transactional exchange.

Fundamental Proposition 2

Our second FP drew on Brodie et al.’s (2011) FP2 (*‘CE states occur within a dynamic, iterative process of service relationships that co-create value’*) and FP3 (*‘CE plays a central role within a nomological network of service relationships’*). Brodie and colleagues’ FP2 highlights the dynamic nature of CE, which the researchers conceptualized as arising over time through interactive service experiences. Their FP3 emphasizes that CE is embedded in the network of other relational concepts that iteratively influence one another. Because these two original FPs relate to value cocreation in service ecosystems through dynamic and evolving relationships between

actors, we decided to consider them together, which allowed us to conceptualize *AE as emerging in dynamic and iterative relationships* (second S-D logic guideline).

Conceptualizations of *relational dynamics* are well established in the service literature. For example, Bell, Auh, and Smalley (2005) investigated customer relationship dynamics, referring back, as they did so, to Dwyer, Schurr, and Oh (1987), who developed the life cycle of relationship development. According to this life-cycle concept, customer relationships are ever-changing phenomena that require continuous adjustments to the service environment.

Recent research provides evidence on the role of engagement in these cycles and supports the notion of an iterative and dynamic engagement process wherein relational constructs, such as satisfaction, commitment, and empowerment, appear not only to drive engagement and related behaviors but also to manifest as their outcomes. Explorative studies by Brodie et al. (2013) and Jaakkola and Alexander (2014), for example, demonstrate that the antecedents, manifestations, and outcomes of engagement behaviors are indeed cyclical because the positive outcomes for the actors intensify both their internal dispositions and their external connections to other actors in the network. Fehrer et al. (2018) tested, through multiple experiments over time, the dynamic nature of the engagement process both within and beyond the customer-firm dyad and found support for iterative relationships between loyalty and engagement. Support for the dynamic and iterative process of engagement is also evident in business-to-business research that suggests trust and satisfaction function as both antecedents and outcomes of engagement-related functions of business relationships; for example, participating in product development, providing referrals, and scouting for information (e.g., Marcos-Cuevas et al. 2016).

Li, Juric, and Brodie (2017) provide a theoretical framework for AE that highlights the iterative process whereby engagement outcomes from previous phases become new engagement

conditions in the next iteration. The interactive character of AE means that its consequences reach beyond the focal actor. Volunteers and other actors within the St Vincent de Paul Society (Case 4, Appendix 1) can directly observe the difference their engagement behaviors (i.e., providing food, shelter, and support) make in people's lives. Seeing the outcomes of their engagement behavior creates a stronger bond among the volunteers and with the society, enhances the engagement disposition of the volunteers, and intensifies their engagement behaviors.

Through engagement behaviors, actors directly influence the resources, dispositions, and actions of other actors in the service ecosystem, a process that contributes to the initiation, enhancement, or deterioration of the relationships among those actors (Jaakkola and Alexander 2014). We reassert that because engagement plays a central role in the nomological network of service relationships, these relationships need to be broadened in scope so that we see them as actor-to-actor relationships in a service ecosystem. AE occurs alongside relationships in networks, where its drivers and outcomes are iterative and where positive outcomes for actors lead to more engagement and more intense connectedness, which results in broadening the network and shaping the service ecosystem. In keeping with this discussion, our second FP reads:

Fundamental Proposition 2: AE emerges through a dynamic, iterative process, where its antecedents and consequences affect actors' dispositions and network connections.

Fundamental Proposition 3

Having considered Brodie et al.'s (2011) fourth FP ('*CE is a multidimensional concept subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and behavioral dimensions* '), we continued to view AE as a multidimensional concept but extend it to encompass another element, connectedness. From a systemic perspective, *connectedness is a critical property*

of *AE* (third guideline), because social connections between actors are essential for the emergence of network structures (Taillard, Peters, and Pels 2016).

Recent conceptualizations of engagement elaborate on a social or relational property of engagement that emphasizes the connections between actors in a service ecosystem (Hollebeek, Srivastava, and Chen 2016; Vivek et al. 2014; Vivek, Beatty, and Morgan 2012). Kumar and Pansari (2016, p. 6), for example, describe engagement as the “attitude, behavior and the level of connectedness” among customers and employees. We see engagement connectedness as the link between a dyadic relation (e.g., between the customer and the brand) and other relations (e.g., peers, volunteers, entrepreneurs, other businesses). In other words, connectedness refers to the relationship between two actors that are affected to some extent by further relationships to other actors (Chandler and Vargo 2011; Vedel, Holma, and Havila 2016; Yamagishi, Gillmore, and Cook 1988).

Business engagement at Under Armour (Case 2, Appendix 1) shows that connections within the network (e.g., between entrepreneurs, business partners, students) are an essential factor with respect to each actor’s engagement disposition and therefore central to their engagement behavior. The creation of ideas on Under Armour’s innovation platform echoes actors’ cognitive engagement state, which manifests in sharing their ideas with Under Armour and other connected actors on the platform.

The literature reveals an inconsistent understanding of how the relational or social notion of connectedness relates to the engagement concept. For Calder, Malthouse, and Schaedel (2009), engagement incorporates a personal dimension and a social-interactive dimension. Other authors see social engagement as a dimension of customer engagement (e.g., Hollebeek, Srivastava, and Chen 2016; Vivek et al. 2014), while Kozinets (2014, p. 10) defines social brand engagement in

terms of “meaningful connection, creation, and communication between one consumer and one or more other consumers using brands.”

We consider that future research which incorporates the notion of engagement connectedness will lead to an explanation of how network structures emerge because such work will provide a deeper understanding of the interplay between engagement disposition, engagement behaviors, and the relational connections within the service ecosystem (Chandler and Vargo 2011; Vedel, Holma, and Havila 2016). The AE concept, therefore, highlights the interplay of *three properties central to AE* within a network: (i) the observable activity of engaging (engagement behavior), (ii) emotional and/or cognitive readiness to engage (engagement disposition); and (iii) the extent to which network relationships influence actors in the network (engagement connectedness). Based on this discussion, we worded our third FP as follows:

Fundamental Proposition 3: AE is a multidimensional concept, subject to the interplay of dispositions, and/or behaviors, and the level of connectedness among actors.

Fundamental Proposition 4

When postulating their fifth *FP* (*‘CE occurs within a specific set of situational conditions generating differing CE levels’*), Brodie et al. (2011) focused on explaining the intensity of CE in given situational conditions. Recent S-D logic work on institutions (Koskela-Huotari and Vargo 2016; Vargo and Lusch 2016) refers to the institutional conditions (Giddens 1984; Orlikowski 2010) that can drive the emergence of distinct AE intensities and also valence over time. By drawing on the fourth S-D logic guideline (*AE is embedded in an institutional context*), we were able to direct our attention to the unique institutional context in which the engaging actors are embedded (Chandler and Vargo 2011; Koskela-Huotari and Vargo 2016).

“Zooming” our lens in and out from dyadic relationships to larger network relationships allowed us to view on meso and macro levels the broader institutional structure that emerges from dyadic interactions (Alexander et al. 2018). While context-specific institutions provide rules, norms, and structures for engagement, the engagement behaviors occurring within them simultaneously sustain and also change them (Alexander et al. 2018; Storbacka et al. 2016). Take, for example, the Food Assembly (Case 1, Appendix 1). Platform businesses such as eBay, Uber, and Airbnb, led the way for the Food Assembly because eBay and the like had already established “rules” for engagement practices in peer-to-peer networks, such as peer-to-peer review mechanisms, secure payment, and insurance. To give another example: shared social trends (e.g., preferences for organic farming and local food) and values (e.g., a healthy, sustainable lifestyle) create positively valenced engagement dispositions and behaviors and increase connectedness within the network.

The embedded nature of AE explains interdependence between engagement intensity and valence and the institutional context (Alexander et al. 2018; Conduit, Karpen, and Farrelly 2016). The valence of engagement refers to whether an actor’s disposition towards an engagement object (such as a brand) is positive or negative in nature: positive AE manifests in behaviors that support the engagement object, such as positive word-of-mouth (van Doorn et al. 2010); negative AE manifests through behaviors such as unfavorable reviews and complaining (Azer and Alexander 2018).

Actors’ institutional contexts bring in societal, social, and collective norms and values that influence actors’ dispositions as well as their positions and roles in the service ecosystem, ultimately affecting what they see as valuable and influencing how they engage with others (Alexander et al. 2018; Koskela-Huotari and Vargo 2016; Li, Juric, and Brodie 2017). Actors are

usually situated within multiple engagement contexts, each associated with institutional arrangements (see FP5) that may coincide, overlap, and/or even conflict, thus potentially causing the actors to redirect or cease their engagement (Alexander et al. 2018).

We agreed, from our discussion of these matters, that an understanding of conditions for engagement needed to expand beyond situational drivers to include the role of institutional contexts, and we worded our fourth FP accordingly:

Fundamental Proposition 4: AE occurs within a specific set of institutional contexts, generating differing AE intensities and valence over time.

Fundamental Proposition 5

Consideration of the essential role of institutions framed our look at AE practices that constrain and are constrained by institutional arrangements on the network level. From our reading of Vargo and Lusch (2016), we recognized that meso-level structural influences affect AE practices. Also, because AE executed by versatile actors with no commonly shared (i.e., institutionalized) understanding can lose its effectiveness, the *institutionalization of AE is essential for cocreating coordination benefits in a service ecosystem (fifth S-D logic guideline)*.

Alexander et al. (2018) argue that actors seeking to have their needs met by a service ecosystem tend to adopt habitual and/or self-regulated engagement practices while working with and/or around other actors in that system. Jaakkola and Aarikka-Stenroos (2018) provide an example of this in their account of how the use of customer references in business-to-business markets has become an engagement practice, i.e. institutionalized activity that supports, in various ways, value cocreation by actors in the business network.

We maintain that if shared institutional arrangements are to evolve, then engagement platforms, that is, physical or virtual touch points designed to provide structural support for the integration of resources (Breidbach, Brodie, and Hollebeek 2014), are essential. Upwork (Case 3, Appendix 1) provides a digital platform that enables freelancers and business-to-business clients to locate suitable partners, evaluate their qualities, carry out assignments, govern collaboration, and enable safe financial exchange. Upwork's value creation continues to be based on its ability to establish engagement practices that different actors can share, thereby lowering risk perceptions and enabling smooth collaboration and positive value outcomes. Engagement platforms (i.e., physical or virtual touch points) thus become essential facilitators for engagement (Breidbach and Brodie 2017).

Engagement platforms are also instrumental, through the rules and technology they employ, in connecting actors. As such, they are integral to the institutionalizing process. We also need to remember that actors choose to engage with other actors on focal platforms at particular stages in their service relationship. Each instance of AE thus combines a specific set of actors, connections, platforms, and contexts (Koskela-Huotari and Vargo 2016; Storbacka et al. 2016). Consequently, and in accordance with work by Breidbach and Brodie (2017) and Fehrer, Woratschek, and Brodie (2018), we maintain that shared engagement practices culminate in enhanced efficiency, positive network effects, and growth in service ecosystems. Our fifth FP, therefore, states:

Fundamental Proposition 5: AE is coordinated through shared practices that occur within engagement platforms.

Actor Engagement: General Definition and Conceptual Domain

The preceding theorizing process resulted in us developing a general definition of actor engagement that we consider applies across contexts: *Actor engagement (AE) is a dynamic and iterative process, reflecting actors' dispositions to invest resources in their interactions with other connected actors in a service system.* More specifically, our development of the five FPs allowed us to frame a conceptual domain for AE (see Table 3).

[Take in Table 3 about here]

IMPLICATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The initial stage of our theorizing process revealed two distinct emphases within engagement research, CE and AE, each of which draws on different theoretical and methodological perspectives to explore engagement (refer Table 1). However, scrutiny of the original CE FPs proposed by Brodie et al. (2011) helped us define a conceptual domain for AE that we consider brings greater convergence to the research domain of engagement and will help stem future segregation of CE and AE in the literature.

CE research has commonly drawn on relationship marketing/management and S-D logic foundations, with a focus on empirically exploring and measuring engagement, its antecedents, outcomes, and dynamics (e.g., Dessart, Veloutsou, and Morgan-Thomas 2015; Hollebeek, Glynn, and Brodie 2014). AE research derives from theoretical foundations that provide models and frameworks for exploring systemic effects, such as S-D logic, actor-network theory, structuration theory, and stakeholder theory (e.g., Alexander et al. 2018; Jonas et al. 2018). This research has included predominantly qualitative approaches, such as ethnographic studies (Keeling, Laing, and Ruyter 2018), case studies (Jonas et al. 2018), and online reviews (Azer and Alexander 2018), as well as quantitative approaches (e.g., Fehrer et al. 2018; Sim, Conduit, and Plewa 2018).

Although research approaches to CE and AE differ, we think they also exhibit complementarity because they provide two complementary perspectives from which to explore engagement. These perspectives can then be “merged” to create a holistic picture. Specifically, CE research allows us to zoom in on the dyadic interaction between the focal engagement subject and object within the broader network, whereas AE research lets us zoom out our lens so that we can understand the engagement occurring among multiple actors in complex networks (see Table 4).

[Take in Table 4 about here]

On the basis of our discussion and explanations in this paper and in keeping with the CE and AE characteristics identified in Table 4, we call for further research that expands the extant domain of engagement research through consideration of the focal actors, engagement contexts, levels of aggregation and analysis, theoretical foundations, and research methodologies. We accordingly conclude that future research needs to encompass the following four emphases. We also refer readers to Appendix 2, which presents *specific research questions* that tap into these emphases.

Research Area 1: A Focus on a Broader Range of Focal Actors

Because AE expands the focus on actors in the network through consideration of a range of individual and non-individual actors, we need a better understanding of the roles and actions of these actors. All actors have an engagement disposition (Storbacka et al. 2016) and agency to engage with other actors in a network (Taillard et al. 2016). Consequently, exploring the engagement roles of various actors in different contexts will allow us to develop a classification of actor engagement types and/or dispositions. Securing an understanding of the roles of various actors within a collective group would be particularly pertinent for business engagement.

Also, because AE occurs within networked settings, a framework for identifying and mapping actors and their interactions and connections within those settings will advance our knowledge of AE. Research in networked settings such as the St Vincent de Paul Society (Case 4, Appendix 1), where multiple stakeholders endeavor through a collaborative effort to achieve positive outcomes, will also be valuable, especially in identifying the engagement behaviors that the stakeholders adopt and the key mechanisms that make this engagement practice effective. Such understandings should benefit the development of social innovation and public policy.

Research Area 2: Investigation into How Engagement Emerges across Interrelated Network Structures

Future research designed to examine how dynamic processes of AE beyond the dyad unfold and how AE practices emerge on a dyadic level and spill over to affect other connections and levels in the network would advance our understanding of how engagement between actors emerges and evolves through relationships in network structures such as firms, business-to-business contexts, and entrepreneurial and social ecosystems. The Food Assembly (Case 1, Appendix 1), for example, includes multiple actors (food enthusiasts, local producers, and growers) connected through a local host on a global digital platform. Whereas traditional CE research would examine engagement at the dyadic level between the local host and local customers physically in store, AE would look at engagement on the digital platform at the global level, allowing us to empirically and conceptually demonstrate that engagement at these two levels is dynamic, with each level of engagement iteratively reinforcing engagement on the other.

Research Area 3: Use of Different Theoretical Perspectives to Further Investigate Engagement Properties

As we extend our conceptual understanding of engagement through AE, we will undoubtedly find ourselves drawing from a broader range of meta-theories that also underpin S-D logic. Extant examples of such approaches include the use of structuration theory (Alexander et al. 2018), stakeholder theory (Jonas et al. 2018), and complexity theory (Sim, Conduit, and Plewa 2018). We encourage scholars to continue using systemic theoretical frameworks to better understand the processes of AE, AE practices and capabilities, and triadic and systemic dynamics of AE. These might include practice theory (Bourdieu 1990), institutional theory (Scott 2001), dynamic capabilities (Teece 2007), and (systemic/open) business models (Fehrer, Woratschek, and Brodie 2018; Wieland, Hartmann, and Vargo 2017).

Because we have argued in this paper that AE is embedded in an institutional context, future research could also draw on institutional theory to help us understand how AE practices contribute to the formation of institutional arrangements and how these arrangements constrain AE practices. This approach would lead to various avenues for future research related to value cocreation through AE in service ecosystems and the role of formal and informal structures (institutions) for AE practices on different system levels. As such, future research could provide a framework for understanding the role and nature of formal and informal institutions as context for emerging AE dispositions, behaviors, and connections within firms' business-to-business, entrepreneurial, and social ecosystems.

The retailer Under Armour (Case 2, Appendix 1) engages multiple actors in its innovation network, including start-ups, students, customers, and even technology. Identifying the engagement practices of the various actor groups in an innovation network such as this one would aid our understanding of the institutional arrangements that enable engagement practices to form. Knowledge of how these institutional arrangements align with and are influenced by the incumbent

business (i.e., Under Armour), and the effect these processes have on AE is of managerial and theoretical importance.

Research Area 4: Use of Different Research Methodologies to Further Investigate Engagement Properties

Finally, those of us intent on developing a broader systemic perspective of engagement need to bring multiple methodological approaches of theory discovery and justification to research designed to strengthen understanding of engagement properties. Methods that allow for gathering longitudinal data, such as case studies, longitudinal experiments, ethnographies, and semantic and linguistic analyses, will be particularly useful in this regard. To refine our conceptualizations of AE in different contexts, we also need to have on hand procedures such as simulations for exploring dynamic network-centered processes and their engagement mechanisms. The empirical research currently informing the CE realm, such as measurement of the construct (Dessart, Veloutsou, and Morgan-Thomas 2015) and determinants of its antecedents and outcomes (Kumar and Pansari 2016), can also be used to guide the development of AE measurement constructs and to further shape and verify the AE conceptual domain.

CONCLUSION

This paper provides two significant contributions. First, it advances the conceptualization of CE that focuses on the interactive experience between customers and firms by encompassing the multitude of interactions that occur among actors in service ecosystems within interrelated network structures on micro-, meso-, and macro-levels. Second, it offers a step towards the development of a unified and stronger engagement theory by overviewing the development of CE/AE conceptual streams and demonstrating their commonalities. Essentially, because our AE conceptualization

accommodates various types of actors and relationships, it can help researchers integrate the dispersed insights on engagement evident in the current literature.

In addition, our AE framework equips the domain with a future-orientated understanding of engagement in diverse contexts. As such, it addresses phenomena relevant to contemporary business environments. These include the rise of the collaborative economy, increasing connectivity and sociality among actors, blurring of traditional economic roles, and the emergence of new types of organizations such as platform businesses.

This broadened AE perspective has application for a large variety of business models and contexts, including incumbent businesses, start-ups, knowledge intense services, and social entrepreneurial networks. Our illustrative cases in Appendix 1 confirm that AE provides a sound framework for analyzing and understanding network structures of different actor groups. The framework should also allow academics and managers to identify, map, and investigate actors (individuals and non-individuals), their interactions and connections within firms, business-to-business, entrepreneurial, and social ecosystems.

Finally, in the same way, that the work on CE by Brodie et al. (2011) and CEB by van Doorn et al. (2010) guided empirical refinement of CE conceptualization and operationalization, we trust that our paper will guide conceptual and empirical refinement among researchers studying AE from a network perspective.

APPENDICES

Appendix 1: Illustrative Cases

During the last stage of our theorizing process, we explored how readily the conceptual domain of AE could be applied to contemporary and traditional business environments. The four cases presented in the table to this appendix also illustrate how our five newly developed FPs play out in four very different contexts: (1) platform businesses, (2) incumbent businesses, (3) knowledge-intensive businesses, and (4) social enterprises.

[Take in Table A1 here]

Appendix 2: Questions for Future Research on Actor Engagement

[Take in Table A2 here]

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Table 1. Selected Key Contributions Informing the Development of CE/AE Research

Article	Main Focus	Approach	Key Contribution to CE	Key Contribution to AE
Bowden 2009	Outlines the basic nature of CE as an individual customer's psychological process.	Conceptual	Providing initial conceptualization of CE.	Not applicable.
van Doorn et al. 2010	Develops the concept of customer engagement behaviors (CEB), defined as the customers' behavioral manifestation towards a brand or firm, beyond purchase.	Conceptual	Outlining behavioral manifestations of engagement by consumers; suggesting a framework for managing CE.	Not applicable.
Brodie et al. 2011	Establishes a general definition for CE as a multidimensional concept reflecting a customer's psychological state occurring within dynamic processes.	Conceptual	Defining the theoretical foundations of CE (mainly by building on S-D logic).	Highlights that engagement plays a central role in the process of relational exchange and emerges through iterative, interactive processes.
Brodie et al. 2013	Explores the nature and scope of consumer engagement in an online brand community environment.	Empirical	Identifying interactive engagement processes shared by consumers in an online brand community.	Showing that the surrounding ecosystem affects and is affected by the outcomes of engagement for the focal actor.
Hollebeek, Glynn, and Brodie 2014	Develops and validates a consumer brand engagement (CBE) scale in social media settings.	Empirical	Developing and validating a scale comprising three CBE dimensions; identifying antecedents and outcomes of CBE.	Not applicable.
Vivek et al. 2014	Develops a scale to measure CE as an individual customer's interactive, reciprocal relationship with a focal agent/object.	Empirical	Developing and validating a scale for CE.	Adding a social dimension to the CE concept by referencing interactions among consumers.
Jaakkola and Alexander 2014	Conceptualizes the role of CEB in value cocreation within a multistakeholder service system.	Empirical	Identifying behavioral manifestations of engagement; identifying CEB drivers and value outcomes.	Exploring CE outcomes beyond the focal customers; demonstrating how CEB induces value cocreation processes to spreading through the service system.
Dessart, Veloutsou, and Morgan-Thomas 2015	Explores the dimensions of CE in online brand communities so as to tap into the core social and interactive characteristics of engagement.	Empirical	Identifying three engagement dimensions (cognition, affect, and behaviors) and analyzing their meanings and subdimensions.	Highlighting the social and interactive characteristics of engagement; indicating that the properties of communities drive engagement.
Chandler and Lusch 2015	Develops a framework for the role that value propositions play in service systems.	Conceptual	Theorizing on the connection between value propositions, engagement, and service experience; conceptualizing engagement as consisting of two core properties – connections and dispositions.	

Kumar and Pansari 2016	Seeks to understand the components, moderators, and consequences of engagement of an organization's internal (employees) and external (customers) stakeholders.	Empirical	Developing a framework showing how employee engagement affects customer engagement.	Showing that employee engagement positively affects firm performance; suggesting that this effect is stronger for business-to-business than business-to-customer contexts.
Harmeling et al. 2016	Conceptualizes customer engagement marketing as a firm's strategic efforts to trigger individual customers' CE.	Conceptual	Outlining how CE can boost marketing; suggesting two types of engagement marketing approaches.	Not applicable.
Hollebeek, Srivastava, and Chen 2016	Develops an S-D logic-informed framework comprising CE processes, antecedents, and resulting benefits.	Conceptual	Suggesting five propositions of CE; applying these to customer relationship management.	Acknowledging the role of service systems in customer engagement.
Storbacka et al. 2016	Theorizes about engagement as a micro-foundation for value cocreation.	Conceptual	Suggesting that engagement entails both actor disposition to engage and the activity of engaging; arguing that engagement underlies value cocreation.	Introducing engagement by general actors in service ecosystems; suggesting that non-human actors also need to be considered; highlighting the role of engagement platforms.
Li, Juric, and Brodie 2017	Explores the dynamic process of multiactor engagement.	Empirical	Demonstrating the iterative nature of engagement processes; showing how engagement evolves and spreads in networks over time.	
Gill, Sridhar, and Grewal 2017	Assesses returns on engagement initiatives in the context of a B2B mobile app.	Empirical	Providing empirical evidence on how the benefits of engagement initiatives materialize for B2B sellers.	Advancing understanding of engagement by business customers.
Fehrer, Woratschek, Germelmann and Brodie 2018	Draws on the findings of experiments to operationalize the dynamic nature of the engagement process within and beyond the customer-firm dyad	Empirical	Empirically validating the theoretically grounded iterative nature of customer engagement within a dyadic setting.	Empirically testing interrelationships with other network actors (engagement connectedness) in a triadic setting.
Alexander, Jaakkola, and Hollebeek 2018	Examines AE from multiple levels of aggregation within a service ecosystem framework.	Conceptual	Introducing the relevance of multiple engagement contexts and the role of institutions in triggering/ceasing AE.	
Sim, Conduit, and Plewa 2018	Examines the interdependencies of engagement with multiple foci in an educational service system.	Empirical	Not applicable.	Providing empirical evidence that the dimensions of engagement objects in a service system are interrelated.
Jaakkola and Aarikka-Stenroos 2018	Examines how customer referencing as engagement behavior in business markets affects value creation in business networks.	Empirical	Providing empirical evidence of the value outcomes of engagement behavior for B2B buyers and sellers.	Advancing understanding of engagement by business-to-business actors and how its value outcomes materialize on actor, dyadic, and network levels.

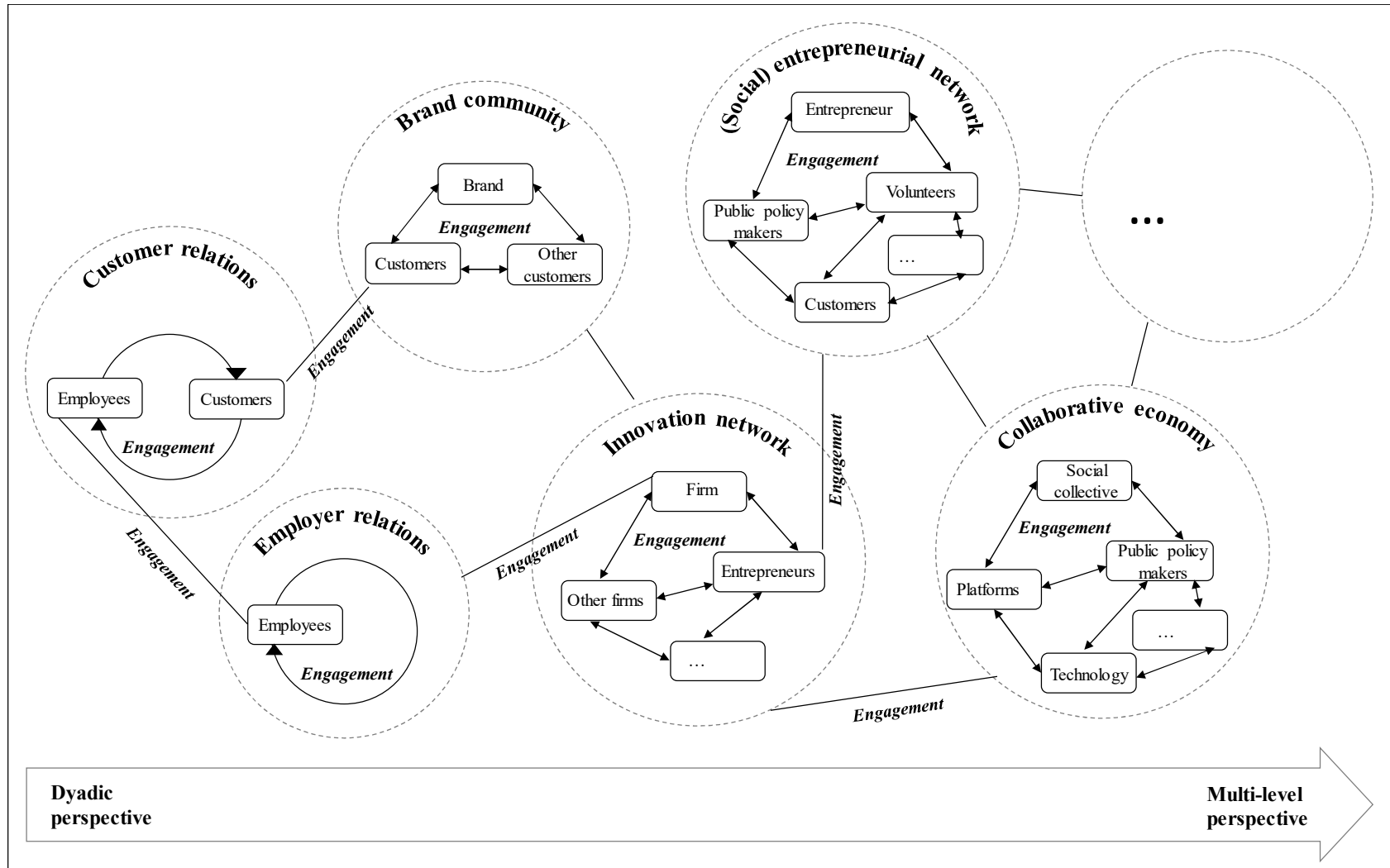


Figure 1. Actor Engagement in Layered Interrelated Networks (Exemplary Network Structures)

Table 2. S-D Logic Guidelines for Developing AE Fundamental Propositions

S-D Logic Concepts	Explanation	Guidelines
Actors and Agency	<ul style="list-style-type: none"> • Notion of an actor is not limited to individual actors but extends to non-individual (social and economic) actors (Lusch and Vargo 2014). • Actors not only exercise their agency but also coordinate their actions to improve resource integration (Taillard Peters, and Pels 2016) • Agency allows actors to take actions that shape the service ecosystem that they and others inhabit (Taillard, Peters, and Pels 2016) 	<i>Actors (individuals and non-individuals) are inseparable from their actions and connections.</i>
System Emergence	<ul style="list-style-type: none"> • S-D logic establishes the theoretical perspective of a service ecosystem as being “a relatively self-contained, self-adjusting system” (Lusch and Vargo 2014; Vargo and Lusch 2016) • Value cocreation occurs through relationships between actors (network structures) involved in resource integration (Vargo and Lusch 2004, 2008). • Actors interact in multiple overlapping networks (Vargo and Lusch 2008, 2016). 	<i>AE processes emerge in dynamic and iterative relationships.</i>
Interactions and Interdependencies	<ul style="list-style-type: none"> • Interactions result in interdependence, necessary for adaptability, and serve as a source of the dynamism and emergence in service ecosystems (Taillard, Peters, and Pels 2016). • Network structures are essential for understanding value cocreation within dynamic service ecosystems (Vargo and Lusch 2016). 	<i>Connectedness is a critical property of AE.</i>
Institutions as Context	<ul style="list-style-type: none"> • Institutions represent the context for interactions in service ecosystems (Edvardsson et al. 2014; Koskela-Huotari and Vargo 2016). • Institutional context is embedded in interdependent and overlapping micro-, meso- or macro-system levels (Giddens, 1984). 	<i>AE is embedded in an institutional context.</i>
Institutional Arrangements Enabling and Constrained by Social Practices	<ul style="list-style-type: none"> • Institutional arrangements are enabling and are constrained by (social) practices between versatile actors (Giddens, 1984; Vargo and Lusch 2016). • Shared practices may result in new assemblages of interdependent institutions, i.e., institutional arrangements (Vargo and Lusch 2016). • Practices start on a dyadic level, form structures on another system level, and go back to the initial dyad (Taillard, Peters and Pels 2016) 	<i>Institutionalization of AE is essential for cocreating coordination benefits in a service ecosystem.</i>

Table 3. Fundamental Propositions for AE

Original FPs for CE (Brodie et al. 2011)	FPs for AE	Explanation
<i>FP1:</i> CE reflects a psychological state, which occurs by interactive customer experiences with a focal agent/object within specific service relationships.	FP1: AE dispositions occur through connections with other actors that lead to resource contributions beyond what is elementary to the transactional exchange.	Dispositions reflect an actor’s readiness to invest resources in connections with other actors. Actors include individuals, groups, organizations, and technologies . Connections contribute to framing an actor’s disposition while simultaneously representing the context for engagement. Each actor provides a set of possible dispositions for engagement, manifesting in resource contributions and generating a set of new connections that shape the networks the actor and other actors inhabit.
<i>FP2:</i> CE states occur within a dynamic, iterative process of service relationships that co-create value.	FP2: AE emerges through a dynamic, iterative process, where its antecedents and consequences affect actors’ dispositions and network connections.	The dynamic and iterative nature of engagement in service relationships is supported by empirical research. The interactive character of AE means that its consequences reach beyond the focal actor. AE creates benefits for multiple actors in the service ecosystem and explains how networks grow based on new connections and intensified connectedness.
<i>FP3:</i> CE plays a central role within a nomological network of service relationships.	FP3: AE is a multi-dimensional concept, subject to the interplay of dispositions, and/or behaviors and the level of connectedness among actors.	AE is viewed as a multidimensional concept emphasizing emotional, cognitive and behavioral dimensions and further including connectedness. Connectedness as a new property of AE explicitly recognizes that the interaction between actors is affected by further relationships with other actors within the service ecosystem. Connectedness explains how engagement dyads interconnect to form overall network structures.
<i>FP4:</i> CE is a multidimensional concept subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and behavioral dimensions.	FP4: AE occurs within a specific set of institutional contexts, generating differing AE intensities and valence over time.	AE is influenced by the institutional context of that service ecosystem . As actors engage, the institutional arrangements are impacted and evolve, subsequently influencing future engagement; thus highlighting the dynamic nature of AE. An actor’s institutional context provides norms and values that affect actor dispositions, explaining the different intensities and valence of AE across contexts.
<i>FP5:</i> CE occurs within a specific set of situational conditions generating differing CE levels.	FP5: AE is coordinated through shared practices that occur on engagement platforms.	AE practices are characterized by the routinized, habitual, and/or self-regulated behaviors actors employ to work with and/or around other actors in seeking to meet their needs. Engagement platforms , i.e., physical or virtual touch points designed to provide structural support for resource investments, facilitate the development of shared engagement practices.

Table 4. CE/AE Research Perspectives

	CE Research Perspectives	AE Research Perspectives
Focal Actor(s)	Customers, customers-employees, customers-brand, customers-to-customers	All actors, including suppliers, partners, firms, government, citizens, non-humans
Context	Customer-firm relationships	Network relationships
Level of Aggregation	Micro-level	Interrelated network structures at micro, meso, and macro levels
Level of Analysis	Intra- and interpersonal, dyadic	Layered and interrelated network relationships on multiple system levels
Theoretical Foundation	Relationship marketing/management; S-D logic	S-D logic, actor-network theory, institutional theory
Research Methodologies	Exploration and measurement of customer engagement, its drivers, outcomes, and dynamics	Exploration and measurement of holistic network structures and processes of AE

Appendix 1

Illustrations of the Conceptual Domain of AE in Four Contexts

Business Contexts	FP1: AE dispositions occur through connections with other actors that lead to resource contributions beyond what is elementary to the transactional exchange.	FP2: AE emerges through a dynamic, iterative process, where its antecedents and consequences affect actors' dispositions and network connections.	FP3: AE is a multidimensional concept, subject to the interplay of dispositions, and/or behaviors, and level of connectedness among actors.	FP4: AE occurs within a specific set of institutional contexts, generating differing AE intensities and valence over time.	FP5: AE is coordinated through shared practices that occur on engagement platforms.
<p>Case 1: Platform business</p> <p>The Food Assembly https://thefoodassembly.com</p> <p>This global platform creates local food markets that connect organic- and fresh- food enthusiasts with local producers and growers via a local host. Founded in 2011 by Mounir Mahjoubi, Marc-David Choukroun, and Guilhem Chéron, it works like a pop-up preorder food-shopping system.</p>	<p>The local host organizes each assembly (local market place for producers and customers). Customers preorder their food and pick it up once a week at the assembly. Embedded in a community of fresh food enthusiasts (AE connections), members (customers, hosts, producers) have the disposition to engage in shaping this local food market.</p>	<p>Based on interactions that intensify during the weekly meetings at the pickup market place, members can grow the assembly network through AE behaviors, such as word-of-mouth, hosting the next event, or encouraging new producers (growers, farmers, bakers, butchers, etc.) to join. Actively establishing further connections makes members feel part of the community and increases their disposition to engage and their loyalty to shop with members of their assembly.</p>	<p>Customers are emotionally affected by the values of the food community (healthy and sustainable lifestyle). This emotional state manifests in engagement behaviors, such as referring the local assembly to friends. If friends join the assembly, their doing so builds new connections between producers, hosts, and customers and increases connectedness among members. The interplay of all properties (behavior, disposition and connectedness) explains how the Food Assembly network grows.</p>	<p>Other platform businesses such as eBay, Uber, and Airbnb led the way for establishing some “rules of the game” (institutions) concerning engagement practices in peer-to-peer networks, such as peer-to-peer review mechanisms, secure payment, insurance, etc. These rules are maintained in the Food Assembly networks. Social trends such as preferences for organic farming and local food and values (e.g., a healthy and sustainable lifestyle) create positively valenced engagement dispositions and behaviors. Shared values increase connectedness within the network.</p>	<p>As a platform business, the Food Assembly's central role is to ensure that local hosts, producers, and customers meet at the same time and place. The Food Assembly therefore provides the structure for emerging engagement practices. It also facilitates these practices by introducing all producers and their products and by providing them with a structured process for connecting with customers.</p>
<p>Case 2: Incumbent business</p> <p>Under Armour</p>	<p>“Think like an entrepreneur. Create like an innovator. Perform like a teammate” is Kevin</p>	<p>The engagement behaviors (i.e., idea generations) of start-ups, students, and</p>	<p>Connections between Under Armour and other actors (entrepreneurs, business partners, students)</p>	<p>Under Armour has built up a culture of open innovation (institutional context). In 2011, the business launched</p>	<p>Under Armour's Idea House provides an engagement platform because it partners not</p>

<https://www.underarmour.com>

Founded in 1996 by Kevin Plank, Under Armour is one of the leading manufacturers of footwear, sportswear, and casual apparel. Over the years, Under Armour has developed a strong network of start-ups and business partners, including a strategic partnership with IBM to use IBM Watson.

Plank's message for his community. Under Armour manifests this engagement disposition through engagement behaviors such as inviting start-ups and business partners to connect. The firm opens its service ecosystem for reciprocal engagement by various versatile actors, including start-ups, students, customers, and even technology (e.g., IBM Watson's cognitive computing technology to provide meaningful data from customer's activities on the Under Armour app).

employees on Under Armour's open innovation platform (Idea House) signals that actors will benefit from engaging. Openly exchanging ideas with Under Armour influences not only the engagement dispositions between actively involved parties but also the engagement disposition of customers observing the interactions on the open innovation platform.

are essential for the actors' engagement dispositions and are a central part of their engagement behaviors. Creating ideas on the innovation platform echoes actors' cognitive engagement state, which manifests in sharing their ideas with Under Armour and in their connections on the platform.

an innovation challenge in the form of an entrepreneur competition. Every year since then, it has invited up to 20 leading fitness, apparel, and technology start-ups to work, during October, with their Idea House. During this time, Under Armour introduces all invited actors to the rules of the game of engaging. The ensuing open-innovation culture is based on trustful relationships with all actors, and these relationships fertilize one another. Entrepreneurs know they will benefit from engaging and sharing their ideas. The institutional context that Under Armour creates thus allows for high-engagement intensities.

only with start-ups and entrepreneurs but also with other actors, such as the University of Maryland. It also invites young, creative students to the Idea House. Under Armour's open innovation platform structure facilitates the engagement practices of all these versatile actors. By establishing capability to reinforce (e.g., Cupid's Cup entrepreneur competition) and align (systematic idea sourcing process) engagement within its network, Under Armour has systematically extended its service ecosystem.

Case 3: Knowledge-intensive business

Upwork

<https://www.upwork.com/>

Upwork, founded as *Elance* in 1999 by Beerud Sheth and Srinu Anumolu, is a global freelancing platform where businesses (clients) can find and hire independent professionals (freelancers and agencies) to work on projects.

Upwork's success depends on engagement by freelancers, agencies, and businesses offering and searching for professional services. Actors can browse profiles and review one another's work, connect and work with one another, and share experiences on the Upwork platform. The unique disposition that each actor has towards Upwork is formed through connections with Upwork as well as with other

Engaged professionals invest more time and resources in a business client project, resulting not only in more satisfied business clients and positive reviews but also increased engagement. Engaged professionals and clients share their views with other businesses, a process that leads to the emergence of new relationships as new actors join the Upwork network.

Engagement by business clients and professionals reflects their cognitive attention as it takes place through professional problem solving and learning with Upwork services. Engagement also reflects the emotions evoked through these connections. Each actor's feelings and thoughts may manifest in behaviors such as recommending or advising against Upwork services or particular business partners in professional or social

Professionals' and business clients' perceptions of Upwork are affected by how well these actors view its payment levels and ways of operating and the extent to which they think these aspects align with industry standards and common business practices. Upwork constantly monitors freelancers' work, which some view as violating professional norms, leading to negatively valenced engagement. Over time, Upwork-driven practices can become industry standards. For example, by

Upwork's value creation is based on its ability to establish ways of working that its different actors share (engagement practices). Alignment lowers risk perceptions and enables smooth collaboration and positive value outcomes and is accomplished through a digital platform that enables providers and buyers of professional services to locate suitable partners, evaluate their qualities, carry out assignments, govern collaboration, and

<p>Case 4: Social enterprise</p> <p>St Vincent de Paul Society https://www.vinnies.org.au/</p> <p>Founded in 1833 in Paris by Frederic Ozanam, the St Vincent de Paul Society is a global not-for-profit organization with a commitment to providing food, clothing, and accommodation for those in need in society. The local chapter was founded in 1884 and has over 3500 volunteers that assist over 100,000 people in the local geographic area.</p>	<p>actors and so affects how that actor interacts.</p> <p>The society (colloquially known as “Vinnies”) brings together a network of actors that includes volunteers, social workers, government bodies, and the public (through donations), each of whom has the disposition to engage to help people in need. It is only through these connections and the interactions among these actors that Vinnies can provide assistance.</p>	<p>Volunteers and other actors can directly observe the difference their engagement behaviors (providing food, shelter, support) make in people’s lives. The impact of seeing the outcomes of these behaviors creates a stronger bond among the volunteers and with Vinnies. It also enhances the engagement disposition of the volunteers and the intensity of their future engagement behaviors.</p>	<p>connections with other businesses.</p> <p>Engaged actors in this network have a strong emotional, even spiritual, connection with Vinnies and with the individuals they assist. The more connected these actors in the network are, the more cognitively and emotionally invested they become in the cause. They often actively recruit other volunteers and source other resources (e.g., clothing), thus expanding the network connections that enable Vinnies to engage with and assist more people in need.</p>	<p>making prices visible, Upwork may affect price levels in different industries.</p> <p>Vinnies recently established a crisis accommodation center for women who had been displaced from their homes (often due to domestic violence). Vinnies was already actively engaged with these women, and overall the engagement was positive. However, Vinnies’ inability to provide accommodation often produced a sense of hopelessness (negatively valenced engagement) and disengagement. To establish the center, Vinnies engaged several actors, including government bodies, to advocate for changes in funding and licensing agreements and local law enforcement so that different procedures could be established for housing these women, and social workers and volunteers could be brought in to support the new initiative. This process changed Vinnies’ institutional context and facilitated a more intense and positive engagement among all actors in its network.</p>	<p>experience safe financial transactions.</p> <p>Vinnies food vans are a physical form of the society’s engagement platform that connects the actors in its service ecosystem in a coordinated manner to facilitate delivery of food to those in need. Vinnies has established engagement practices (systems and supporting technology) to support its engagement with local businesses who want to donate excess or prepared food (e.g., bread rolls, meat, curry dishes). This coordinated approach has enabled Vinnies to engage with the large number of people who line up at established times and locations (further engagement practices) seeking a free meal.</p>
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Appendix 2

Questions for Future Research about AE

Research Areas	Research Questions
Research Area 1: A Focus on a Broader Range of Focal Actors	<ol style="list-style-type: none">1. What relevant actor roles do we need to consider when exploring AE in specific networks (e.g., business, social, public networks)?2. What actions (engagement behaviors) do these different actors adopt in accordance with their role in the network (e.g., as customers, service providers, platform providers)?3. What is the best way to conceptualization technologies, artificial intelligence especially, as actors in the engagement process? How does technology enact engagement behavior? What definitions can we apply to the engagement dispositions of technologies?4. How do different types of actors engaging in service exchange reconcile the potentially conflicting institutional arrangements guiding their engagement dispositions, behaviors, and practices?
Research Area 2: Investigation into How Engagement Emerges across Interrelated Network Structures	<ol style="list-style-type: none">5. What makes AE in the dyad spill over to affect other connections in the network? How does AE among a specific group of actors extend throughout the network to affect the broader service ecosystem?6. What are the engagement mechanisms (e.g., learning, sharing) through which the actions of one actor affect the actions of other actors in the service ecosystem?7. How does the dynamic process of AE beyond the dyad unfold? What are the antecedents and outcomes in different iterations of the engagement process leading to value cocreation in the service ecosystem?8. How do network structures differ in terms of their level of connectedness?9. What effects do negative engagement have on the dynamic process of AE in networks?
Research Area 3: Use of Different Theoretical Perspectives to Further Investigate Engagement Properties	<ol style="list-style-type: none">10. How can other systemic frameworks, including practice theory, structuration theory, institutional theory, design theory and business models further cross-fertilize and reconcile the conceptual domain of AE?11. How and to what degree do institutions and institutional arrangements influence engagement dispositions, behaviors, and connectedness? How do the engagement practices of various actors result in the (re)formation and deformation of institutional arrangements?12. How do engagement practices emerge in a service ecosystem? How can service ecosystems facilitate the emergence of these practices?

**Research Area 4: Use of Different
Research Methodologies to Further
investigate Engagement Properties**

13. What (dynamic) capabilities are necessary to facilitate favorable engagement practices and deinstitutionalize unfavorable ones?
 14. How should engagement platforms be designed to best support favorable engagement practices? How do differently designed engagement platforms influence the way engagement practices emerge?
 15. How can AE be conceptualized in the context of business model design and business model innovation?
 16. How can versatile methods be combined to analyze dynamic engagement processes with different levels of analysis?
 17. Though which methods can the level of connectedness be empirically studied?
 18. What methods should we use to operationalize and measure the interplay of individual engagement disposition, engagement behaviors, and connectedness?
 19. How can we operationalize and measure the influence of institutional context on the engagement process?
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