



Invited paper

## Actor engagement, value creation and market innovation

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### ABSTRACT

We extend the discourse on actor engagement by arguing that the ‘actor’ should be viewed both as a single-actor (humans or machines) and a group of actors (collectives or organizations), and that engagement implies both exchange-based and non-exchange-based resource contributions, which are facilitated by dispositions, formed partly by actor specific characteristics and partly by the institutional and organizational arrangements prevalent in the context in which the resource contributions occur. We further show how the resource contributions, combined with other resources, improve resource density and, thus, drive value creation. This mechanism can be the foundation for ‘economies of actor engagement’; focal actors can achieve increasing returns by mobilizing actor engagement. Building on this, we argue that actor engagement is central for market-shaping strategies that aim for market innovations, which we define as the emergence and institutionalization of resource linkages that improve resource density and, hence, value creation in a market. Finally, we suggest that the dramatic shifts that we see in the operating environment are elevating the role of actor engagement, making the management of actor engagement a strategic priority.

### 1. Introduction

Research on engagement within the marketing discipline has developed customer engagement conceptualizations (Brodie, Hollebeek, Jurić, & Ilić, 2011), explored customer engagement's role in nomological networks (Brodie, Fehrer, Jaakkola, Hollebeek, & Conduit, 2016; Kumar & Pansari, 2016), described the role of engagement in service systems (Chandler & Lusch, 2015), and identified the contribution of engagement on a systemic level (Jaakkola & Alexander, 2014).

Recently the discourse has developed along four trajectories. First, building on the idea of generic actors (Vargo & Lusch, 2011), research is increasingly focusing on actor engagement rather than customer engagement (Storbacka, Brodie, Böhmman, Maglio, & Nenonen, 2016). Second, ideas related to collective (Kleinaltenkamp, Karpen, Plewa, Jaakkola, & Conduit, 2019) or multi-actor (Li, Juric, & Brodie, 2017) engagement in networks (Verleye, Gemmel, & Rangarajan, 2014) illustrates how actors are connected and how these connections drive engagement behaviours. Third, informed by the realization that value creation happens in a systemic context, literature is making attempts to be liberated from a dyadic view (Alexander, Jaakkola, & Hollebeek, 2018), thus recognizing how institutional contexts influence actor engagement. Finally, although most of the research so far has been descriptive in nature (i.e., focusing on delineating what engagement is), there are recent examples of more prescriptive research, such as Harmeling, Moffett, Arnold, and Carlson (2017), who suggest that firms

need to develop “engagement marketing” which aims to motivate, empower, and measure customer contributions to the marketing function.

In this research, we build on these development trajectories and explore actor engagement in an industrial marketing context. In their study of the historic development of the contributions of research on industrial marketing, Hadjikhani and LaPlaca (2013, p. 301) conclude that the “B2B journey has just started”. The argument is that more research is needed to support upcoming changes in the operation environment. Actor engagement is particularly interesting in an industrial marketing context as it has the potential to contribute to many of the research questions identified by Cortez and Johnston (2017), concerning, for instance, navigating in increasing business networks, identifying systematic patterns across different relationship types, increasing value co-creation through social media, supervising machine-to-machine interactions, and identifying the type of collaboration needed with government agencies.

Therefore, the purpose of our research is to (1) further delineate the actor concept and explore the essence of actor engagement, (2) explicate how the contemporary context for value creation elevates the role of actor engagement, and (3) illustrate the role of actor engagement in generating market innovations. In examining various aspects of actor engagement, we continuously tie our discussion to the managerial implications of actor engagement and also provide perspectives on further research efforts that can support managerial practice.

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The next section focuses on an examination of the generic actor, providing an alternative definition of the engaging actors. Building on this we also argue that, to be free from the restriction of dyadic thinking, engagement needs to be de-coupled from the exchange of property rights. The paper then proceeds by explicating the role of actor engagement as a driver of value creation, which suggests an elevation of actor engagement as a managerial priority. Next, and building on the previous sections, we explore how actor engagement can inform research related to market-shaping. In the final section, we make some reflections and offer ideas for further research.

To guide the reading experience, we provide a summary of the key constructs discussed in the paper in [Appendix A](#).

## 2. Perspectives on actor engagement

As digitalization drives universal connectivity (Storbacka, 2018), actors can be present in other actors' processes continuously, which blurs the previously strict actor roles. Based on the idea of generic actors that have ownership of, or access to resources and participate in resource integration with other actors in a market system (Vargo & Lusch, 2011), Storbacka and Cornell (2016) argued that the previously strict roles of producer vs. consumer, or seller vs. buyer are fleeting, as actors can have different roles. An actor-to-actor perspective effectively renders clearly specified and static actor roles useless. All actors have comparable processes of engagement and what is needed is a generic view of actor engagement.

To generate a generic view, we need a better understanding of both the actor and the essence of engagement.

### 2.1. Delineating the actor

In addition to expanding the discussion about engagement beyond the supplier-customer dyad, research has also highlighted the need to specify the meaning of actors. Actor is commonly used in social sciences to depict humans or collections of humans, such as organizations. When advancing our understanding of actor engagement, this has its downsides as it is not always clear if the generic actor construct refers to an individual or an organization, or if the organization is a firm or a governmental or non-governmental one. One way to deal with this dilemma would be to build on stakeholder theory and discuss stakeholder engagement (c.f., Jonas, Boha, Sörhammar, & Moeslein, 2018).

The discussion on actors has followed two trajectories. First, Storbacka and Cornell (2016) argued that to focus on human actors alone ignores the impact of technologies. They build on the socio-materiality discourse, which views the human and social dimension interwoven with materiality and technologies (Cecce-Kecmanovic, Galliers, Henfridsson, Newell, & Vidgen, 2014; Orlikowski & Scott, 2008). They further argue that advances in autonomous technologies provide increasing opportunities for re-shaping actor-to-actor interaction, for instance, by substituting human-based interaction with technology-to-technology interaction. The fast pace of development of smart machines in service interactions (Brynjolfsson & McAfee, 2012) means that adding technologies or machines to the equation is imperative. Hence, they argue that “actors need to be viewed not only as humans, but also as machines/technologies, or collections of humans and machines/technologies, including organizations” (Storbacka & Cornell, 2016, p. 3010).

Second, Kleinaltenkamp et al. (2019) argue for the need to also understand collective engagement of multiple (individual) actors. The argument is that focusing only on engagement by individual actors may lead to ignorance about aspects that arise from the inherent social embeddedness of actors, i.e., actor engagement by one actor affects resource integration processes between the focal actor and other actors in the service ecosystem. They define collective engagement as “multiple actors' shared cognitive, emotional, and behavioral dispositions, as manifested in their interactive efforts toward a focal object”.

Collective engagement has similarities to the discussion on multi-actor engagement (Li et al., 2017) and oor (Verleye et al., 2014), in that they view engagement from the perspective of how individual actors engage as members of a collective, of which they choose to be a member. However, collective engagement is different in that it (a) uses a different level of analysis by focusing on the collective, and (b) argues that the collective is more than just the sum of individuals. We agree with the collective view but argue that it would also be necessary to understand how multiple actors form an organization, that has agency beyond the agency of the individuals. As individual actors join forces in an organization (e.g., a firm) they agree on a strategy for this “collective”, enabling the mobilization of resource contributions by the organization. Collectives are informal in nature; their members identify with a reference group, they share institutional elements, and social contagion allows engagement to transfer among actors (Kleinaltenkamp et al., 2019).

Organizations are more formal; actors are paid to perform activities for the organization, they have commonly accepted goals, and actor activities are governed by “organizational institutions”, i.e., joint plans and definitions of appropriate behaviour. Adding to this: if the actor inside the organization is a machine, it will engage based on pre-programmed rules that reflect the strategy of the organization. The similarity is that both collectives and organizations are more than the sum of individuals.

To summarize, we suggest that engagement can be approached from a single-actor's (humans or machines) or a group of actors' (collectives or organizations) perspective. In an industrial marketing context, all these perspectives are relevant to consider when examining actor engagement. With this definition, ‘multi-actor’ implies various combinations of single-actors and groups of actors.

### 2.2. Defining actor engagement

Literature on customer engagement has provided various views of the phenomenon: (1) a singular focus on behavioral manifestations, (2) considerations of cognitive, emotional, and behavioral dispositions to engage; or (3) combinative approaches of both the disposition to engage and the act of engaging (Kleinaltenkamp et al., 2019).

In an actor engagement context, the focus of research has been more on behaviours and less on the dispositions – the argument being that it is through engagement behaviours that engagement affects other actors (Jaakkola & Alexander, 2014; Van Doorn et al., 2010). In their recent article Alexander et al. (2018, p. 336) define actor engagement as “an actor's voluntary resource contributions that focus on the engagement object [and] go beyond what is elementary to the exchange [...]”. This definition, and many other definitions (Jaakkola & Alexander, 2014; Kumar et al., 2010; Van Doorn et al., 2010; Verhoef, Reinartz, & Krafft, 2010; Vivek, Beatty, & Morgan, 2012), assumes that all actors are involved in exchange, which illustrates how difficult it is for marketing research to become emancipated from the “shackles of the dyad (and the myopia connected to this)” (Storbacka & Nenonen, 2011, p. 242).

The core of actor engagement is resource contributions. However, the major difference between customer and actor engagement is that although actor-to-actor resource integration is on-going, not all of this happens through exchange of property rights. Hence, we need to distinguish between two categories of actor engagement: (1) resource contributions in connection to (as an antecedent, activity or outcome of) exchange, and (2) resource contributions that do not involve exchange of property rights (c.f., Vivek et al., 2012). Using a stakeholder theory lens (Hult, Mena, Ferrell, & Ferrell, 2011), primary stakeholders (such as customers, suppliers, shareholders, employees) are involved in both engagement categories, whereas secondary stakeholders (such as regulators, interest groups, trade associations, media) are primarily involved in “non-exchange-based” engagement. It is, however, important to consider that roles may be fleeting – an actor who is a customer today (and involved in exchange) may be a non-customer

tomorrow, and still involved in the second form of actor engagement (and vice versa).

Furthermore, the idea of ‘voluntary’ resource contributions (in the above quoted definition) raises questions related to the meaning of voluntary behaviours. According to Merriam Webster, voluntary can mean ‘proceeding from the will or from one’s own choice or consent’ (or action without external compulsion), ‘done by design or intention’, or ‘provided or supported by voluntary action’ (or done without payment). However, all actor engagement happens in an institutional context, in which all actions are governed by various competing institutional arrangements. These arrangements are “interrelated sets of institutions that together constitute a relatively coherent assemblage that facilitates coordination of activity” (Vargo & Lusch, 2016, p. 8). Thus, they provide rules, norms, and practices that influence actor engagement.

Actor engagement is likely to be path-dependent in terms of both the history and experience of the actor, and the routines related to the engagement (Storbacka et al., 2016). Applying practice theory (Schatzki, 2001), actors’ engagement practices can be defined as “more or less routinized actions, which are orchestrated by tools, know-how, images, physical space and an [actor] who is carrying out the practice” (Korkman, 2006, p. 27). A practice is neither determined by the actor, nor by context alone, but more specifically happens in the integration of resource elements.

This line of reasoning has explicit implications when it comes to assumptions about an actor’s disposition to engage. To assume that actors have free will, or act based on design, needs to be taken ‘with a pinch of salt’: it is evident that a large share of actor engagement behaviours are not designed by the actors or driven by their “willingness” to engage, but rather an outcome of them acting in a specific context, be it an organizational or institutional context.

Based on the above we suggest that an actor’s exchange-based and non-exchange-based resource contributions can be viewed as practices that are facilitated by dispositions, formed partly by actor specific characteristics and partly by the institutional arrangements prevalent in the context in which the actor operates. This view opens interesting opportunities from a managerial point of view: a focal actor wanting to influence actor engagement can do so by influencing the contextual aspects of engagement (instead of directly trying to influence the individual or collective dispositions).

### 3. Actor engagement and value creation

Based on the above discussion we define actor engagement as *an actor’s (humans or machines) or a group of actors’ (collectives or organizations) exchange-based and non-exchange-based resource contributions, that are facilitated by dispositions, formed partly by actor specific characteristics and partly by the institutional and organizational arrangements prevalent in the context in which the resource contributions occur.*

In this section, we posit that the dramatic shifts that we see in the operating environment are elevating the role of actor engagement, making the management of actor engagement a strategic priority.

#### 3.1. Actor engagement and RBT

As resource contributions is the core of actor engagement, it has implications for resource-based theory (RBT). According to RBT firm success can be analyzed using the VRIO framework, i.e., by understanding how valuable (V), rare (R) and inimitable (I) their resources are and how they orchestrate (O), i.e., structure, bundle and leverage these resources (Barney, Ketchen, & Wright, 2011; Sirmon et al., 2011; Kozlenkova, Samaha, & Palmatier, 2014).

Bingham and Eisenhardt (2008) argue that it is not the attributes of resources that make them valuable, but the linkages between them. And although most of RBT research is focused on firm-based assets, Dyer and Singh (1998) suggested that the resource-based logic should be extended to inter-actor linkages, which is consistent with how marketing

literature has extended the unit of analysis from the actors to exchanges (Kozlenkova et al. 2014).

This resonates with service-dominant logic, according to which value is created as social and economic actors integrate resources, giving all actors dual identities: they are both resource providers and value beneficiaries (Amit & Han, 2017; Vargo & Lusch, 2016). This indicates that the value of resources is determined when they are integrated with other resource. Hence, resources are not, they become, i.e., what is a resource (and its value) is determined at the point of integration.

This can be seen an opportunity to re-think the idea of VRIO. The blurring roles of actors in systemic markets implies that the locus of value creation moves beyond the borders of the firm, i.e., value is viewed as co-created with a multitude of market actors, not only by the firm and for the customer (Tantalo & Priem, 2016). What is valuable, rare and inimitable is contextual and the unit of analysis for this context is not one actor but the larger market system. For instance, a resource that is not viewed as VRI for one actor can be so to another actor, when mobilized and integrated with other resources. Hence, it is the inter-organizational resource linkages that are VRI, i.e., resources become VRI when they are mobilized and linked in a new way. This puts emphasis on the O (orchestration capabilities) of market-shaping actor. As the actor orchestrates inter-actor resource linkages, it makes resources VRI.

Managerially, this essentially means that firm size is less important and firms’ ability to collaborate more important, and that firms require a systemic view to be able to grasp opportunities for actor engagement with the aim to orchestrate resources in the market system for multi-actor value creation.

#### 3.2. Actor engagement and resource density

To understand value, firms need a ‘system-based and value-creation-centric approach’, as a complement to the ‘firm-based and value-capture-centric approach’ (Amit & Han, 2017). Although the discussion in industrial marketing has been ‘liberated’ from a value-capture emphasis, and now promotes a value-creation or use-value approach (c.f., Hinterhuber, 2004; Ulaga & Eggert, 2006), what is often lacking is the systemic view. Driven by dyadic viewpoints and predefined customer and provided roles, the discussion about value creation for customers (use-value) typically draws on two models: the benefit-cost comparison model and the means-end goal model (Macdonald, Wilson, Martinez, & Toossi, 2011; Woodruff, 1997). However, the above discussion suggests a need for a more holistic way to interpret use-value for all market actors.

Value creation is related to resource integration (Kleinaltenkamp et al., 2012), which resonates with Normann (2001), who argues that greater density of resources corresponds to more value. Density expresses the degree to which resources are accessible for integration in a specific actor, time, situation and space combination. Digitalization liquifies resources (Lusch, Vargo, & Tanniru, 2010), allowing them to be easily moved about in time and space, thus creating an abundance of opportunities for linking resources between actors in new ways. As Amit and Han (2017, p. 232) argue: “digitization enables firms to expand both the scope of resources they could access and utilize, as well as the needs they could address”. Density relates not only to physical resources but also to the density of various forms of socio-cultural resources such as meanings, designs and/or symbols (Storbacka, Frow, Nenonen, & Payne, 2012). Consequently, resource density can be improved both by exchange-based and non-exchange-based resource contributions.

Interestingly, resource density can be viewed both from a cost-benefit viewpoint (accessing resources is becoming relatively cheaper), and from a means-end viewpoint (only resources that support an actor in achieving their goals are relevant). Hence, although it is easier and cheaper to access resources, resource density needs to be evaluated in relation to actor goals.

### 3.3. Toward economies of actor engagement

The above described logic questions one of the foundations of business strategy, namely the idea of increasing returns based on economies of scale. Evans and Forth (2015), suggest that increasing returns is related also to the breadth of activities (economies of scope) and the cumulative volume of activities (economies of experience). Similarly, Gartner has argued for the ‘economies of connections’, i.e., increased returns through amplified density of interactions between business, people and things (Pemberton Levy, 2015). As the density of connections grows, it increases the density of available resources and, thus, make increased returns possible.

Increased connectivity, coupled with decreased transaction costs, generates more resource access and resource contribution options for all actors in a market system. Achieving increased returns, however, is dependent of a focal actor's ability to mobilize the resources of the connected actors, i.e., redirecting them from existing to new uses (McCarthy & Zald, 1977). Additionally, to enable actors as beneficiaries, actors need to be made aware of the relevancy and value potential associated with various resources and new resource combinations.

To summarize, we suggest that without actor engagement (i.e., resource contributions), no resource integration happens, and no value can be created (Storbacka et al., 2016). From a managerial point of view, this indicates that it is not the connections that increase the returns for a focal actor - it is the ability to mobilize actors in the market system to engage in resource contributions that, combined with other resources, improve resource density and value creation. This creates a clear link between actor engagement and increased returns – firm that have such abilities may enjoy ‘economies of actor engagement’. As we describe later in this paper, this suggests that firms should focus on a new set of capabilities: actor engagement management. To build these capabilities firms can likely build on existing processes and practices developed in connections to the management of customer relationships, supplier relationships and stakeholder relationships.

## 4. Actor engagement and market innovation

Recent research in strategic management and entrepreneurship suggests that markets should not be viewed as a given and deterministic context, exogenous to the firm (Priem, Butler, & Li, 2013). Firms are increasingly conceptualized as active creators of market opportunities (Alvarez & Barney, 2007), suggesting that markets are not precursors, but rather outcomes of strategy. Firms that have engagement management capabilities can engage in market-shaping activities (Kindström, Ottosson, & Carlborg, 2018; Nenonen & Storbacka, 2018; Nenonen, Storbacka, & Windahl, 2019) to generate market innovations (Kjellberg, Azimont, & Reid, 2015; Vargo, Wieland, & Akaka, 2015) that improve the value creation of the market.

The outcome of market-shaping, i.e., a market innovation can be viewed as a contextually demarcated amalgamation of value innovation (Matthyssens, Vandenbempt, & Berghman, 2006), business model innovation (Foss & Saebi, 2017), and institutional innovation (Hargrave & Van de Ven, 2006) that market-shaping actors can achieve by managing the engagement of various actors in the market system. We define market innovations as the emergence and institutionalization of resource linkages that improve resource density and, hence, value creation in a market.

Managerially this means that to identify opportunities for market-shaping, focal market-shaping actors need abilities to comprehend a larger system of actors, to understand how new resource linkages can be created within this system, to recognize the institutional arrangements that govern all actors, and to mobilize actors for exchange-based and non-exchange-based resource contributions – thus making actor engagement central to market-shaping.

### 4.1. Markets as contexts for actor engagement

Expanding the analysis toward a systemic view of interacting resource-contributing and resource-integrating actors implies a need to understand the context in which engagement transpires, i.e., the market.

In parallel with the development of new management realities, marketing has during the last ten years broken free from earlier market conceptualizations that, often implicitly, drew on neoclassical economics (Mele, Pels, & Storbacka, 2015). There are three interrelated development trajectories in this development. First, as noted also above, research is progressively seeing markets as networks, systems, or ecosystems (Aarikka-Stenroos & Ritala, 2017; Adner, 2017; Iansiti & Levien, 2004; Johanson & Vahlne, 2011). Second, building on economic sociology, markets are increasingly portrayed as socially constructed (Araujo, 2007; Araujo, Finch, & Kjellberg, 2010; Kjellberg & Helgesson, 2006) and, therefore, plastic and malleable (Nenonen et al., 2014). Third, research in marketing is increasingly drawing on institutional theory (DiMaggio & Powell, 1991), and market systems are argued to be governed by institutions and institutional logic, or as Vargo and Lusch (2017).

Market systems do not obey simple laws of cause and effect, and they have no center and no central control mechanism. They do, however, evolve from a combination of deliberately designed influence, and random emergence resulting from combinations of various actors' engagement patterns. This indicates a need to understand how market change happens in a balance between deliberate design efforts (and related engagement) by various market actors, and spontaneous emergent developments occurring because of the amalgamation of all actors' engagement (Mars, Bronstein, & Lusch, 2012). Hence, one could argue that also on a market level the summative effects of actors' engagements is more than the sum of the individual actors' engagement.

Peters (2016) suggests that actor engagement may lead to homeopathic (summative) and heteropathic (emergent) resource integration patterns. Heteropathic resource integration generates new properties in the market systems, e.g., entities, structures, concepts, qualities, capacities. Thus, heteropathic resource integration can be viewed as a mechanism for emergence, implying that actor engagement is a micro-foundation of emergence (Storbacka et al., 2016).

From a managerial perspective this means that focal actors wanting to shape markets need to focus on (1) experimentation that allows for heteropathic integration of both exchange-based and non-exchange-based resource contributions from both single-actors and multi-actors, and (2) identifying actor engagement patterns that fulfill their shaping objectives, and drive market development accordingly (Storbacka et al., 2016).

### 4.2. Actor engagement and market work

The institutional logic view suggests that market actors can gradually strengthen or alter institutional arrangements through actor engagement (Alexander et al., 2018) to better facilitate the introduction and viability of new resource-linkages (Vargo et al., 2015).

Institutional theory provides a prolific perspective to the relation between shaping activities and the market system. The discussion about the ‘paradox of embedded agency’ (Battilana, Leca, & Boxenbaum, 2009; Garud, Hardy, & Maguire, 2007) informs us that market actors can envision new institutions even though they are embedded in existing ones. This is congruent with the literature on institutional work, defined as the “purposive action of individuals and organizations aimed at creating, maintaining and disrupting institutions” (Lawrence & Suddaby, 2006, p. 217). Actors engaging in institutional work can be viewed as institutional entrepreneurs that advance their interests and abilities to create value, by altering constraining institutional arrangements (Greenwood & Suddaby, 2006).

Efforts by focal actors to shape their markets fulfills the

characteristics of ‘work’ identified by Phillips and Lawrence (2012), as they are purposeful efforts to manipulate some aspect of their context that were previously seen as beyond the control of individual actors. Hence, we call these activities ‘market work’ (a subcategory of institutional work), which we define as purposeful efforts by a focal actor to transform and perform institutional arrangements in a market.

In attempting to engage in market work, actors need to recognize that institutional logics are embedded in everyday actions and practices, and thus they change very slowly. Additionally, influencing institutional logics, containing often deeply ingrained belief systems, directly on a market system level can be very challenging. Therefore, drawing on Scott (2014), we suggest that market work should focus on the representations and transmitters of institutional logics. These representations and transmitters can take various forms such as signs and symbols, practices and routines, social structures, and codified institutions (e.g., laws, rules, or standards). The representations and transmitters of institutional logics are more tangible and therefore more easily influenced than the institutional logics themselves.

From a managerial perspective the representations and transmitters form the basis for identifying opportunities to engage actors in joint market work processes aimed at gradually transforming the market. In this process, focal actors are likely to primarily aim for non-exchange-based engagement, involving groups of actors, both collectives and organizations.

## 5. Conclusions

Understanding markets as systems that do not obey simple laws of cause and effect and that have no center and no central control mechanism, and which consist of generic actors that, governed by institutional arrangements, both contribute resources and create value by integrating their resources with the resources of other market actors, questions many of the traditionally dyadic and linear models of management. Instead of assumptions of control of resources and processes, management increasingly need to ‘let go’ and find new ways to manage the engagement of various intra- and inter-organizational actors. These new ways can be based on ideas of distributed (Bolden, 2011) or rotating leadership. Davis and Eisenhardt (2011) have, for instance, shown that rotating leadership, where organizations take turns leading the inter-organizational collaboration in distinct phases, is associated with higher innovation outcomes than collaborations dominated by a single actor.

The research presented here also underscores the importance of actor engagement both as a driver of resource density and, thus, value

creation, and as a shaper of market systems. The notion of ‘economies of actor engagement’ highlights that management of actor engagement, or ‘management’ is a key capability that firms need to focus on. Management can be viewed as a dynamic capability, as it focuses on finding new resource linkages, modifying the resource base (Helfat et al., 2007) or creating new resource configurations (Eisenhardt & Martin, 2000). When exploring the foundations for management, research can build on signaling theory (Connelly, Certo, Ireland, & Reutzel, 2011), which relates to the reduction of information asymmetry between actors, and resource mobilization theory (McCarthy & Zald, 1977), which was developed in the study of social movements and relates to the collective actions that redirect resources from existing uses to new ones.

Focusing on inter-actor resource linkages and encouraging actors to engage in exchange-based and non-exchange-based resource contributions implies that these resources can, from a focal actor perspective, be viewed as assets. This has similarities to discussions about market-based resources (Srivastava, Fahey, & Christensen, 2001) in which relational resources are viewed as intangible assets that are external to the firm, and are available to, but not owned by the focal actor. Building on this, and on literatures on customer asset management (Bolton, Lemon, & Verhoef, 2004), and customer equity management (Hogan, Lemon, & Rust, 2002), we suggest a need to explore actors and their various resources as assets. In this context it is important to consider the logic explored earlier in this paper: it is not the attributes of resources that make them valuable, but the linkages between them (Bingham & Eisenhardt, 2008), indicating a need for a dynamic view, as the value of resources is determined only when they are integrated with other resources, in a process of actor engagement.

Finally, when considering the future of actor engagement in an industrial marketing context, more attention is needed to better understand the consequences of automation. Automation of manual activity, replacing labour with technology, is not limited to factories; automation is as prevalent in customer-facing operations, including marketing, sales, delivery and customer service (Storbacka & Cornell, 2016). Machine learning enables smart machines to act without being explicitly programmed (Cearley, Burke, & Walker, 2016). These machines offer opportunities to deliver autonomous (or semi-autonomous) ‘actants’ (autonomous actors as agents for human beings), including robots, autonomous vehicles, smart vision systems, virtual customer assistants, and smart agents. Increasingly, intelligent algorithms influence connectedness between people, things, and processes, building foundations for seamless and continuous multi-channel actor engagement, thus driving resource density and value creation.

## Appendix A. Definitions of key constructs

Concepts	Definition
Actor	Single-actors (humans or machines) or groups of actors (collectives or organizations).
Actor engagement	An actor's (humans or machines) or a group of actors' (collectives or organizations) exchange-based and non-exchange-based resource contributions, that are facilitated by dispositions, formed partly by actor specific characteristics and partly by the institutional and organizational arrangements prevalent in the context in which the resource contributions occur.
Resource density	Expresses the degree to which resources are accessible in a specific actor, time, situation and space combination. Density can be viewed both from a cost-benefit viewpoint (accessing resources is becoming relatively cheaper), and from a means-end viewpoint (only resources that support an actor in achieving their goals are relevant).
Market-shaping	Abilities to comprehend a larger system of actors, to understand how new resource linkages can be created within this system, to recognize the institutional arrangements that govern all actors, and to mobilize actors for exchange-based and non-exchange-based resource contributions.
Market work	Purposeful efforts by a focal actor to transform and perform institutional arrangements in a market.
Market innovation	The emergence and institutionalization of resource linkages that improve resource density and, hence, value creation in a market.

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