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A Unifying Perspective for the Technological, Business Model, and Market Aspects of Innovation

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INTRODUCTION

Recent work on service-dominant logic increasingly highlights that actor-generated institutions are essential to understanding service exchange and value cocreation (e.g., Edvardsson et al., 2011; Vargo and Lusch, 2011, 2016; Vargo et al., 2015). This work describes the narrative of value cocreation as ‘one of resource-integrating, reciprocal-service providing actors cocreating value through holistic, meaning-laden experiences in nested and overlapping service ecosystems’ (Vargo and Lusch, 2016: 7). *Institutions* – the rules, norms, beliefs, values, and cultural meanings that make social life predictable and meaningful (Scott, 2008) – are essential in these complex and interrelated service-exchange activities. This is because institutions guide the value cocreation practices that connect systemic actors and their resources and provide the context for the integration of such resources.

In this chapter, we show that the service-based, institutional, and ecosystemic

perspective of S-D logic can provide a unifying framework for diverging views on innovation. We employ S-D logic’s metatheoretical perspective (Vargo and Lusch, 2017) to reconcile three important aspects of innovation – the technological, business model, and market aspects – and their theoretical frameworks. Although the innovation literature broadly acknowledges the importance of these aspects of innovation, it often highlights their differences rather than their commonalities.

Arguably, this common separation is rooted in the neoclassical economic perspective that separates ‘production’ and ‘consumption’ processes (Vargo and Lusch, 2004) and considers firms as ‘producers’ of value and customers as ‘consumers’ or destroyers of value. Much of the traditional innovation literature is based on the conceptualization of linear and sequential value flows that begin with the creation and end with the destruction of value. Linear models of innovation, for example, often describe a progression of

value creation as moving from basic research to applied research, development, and production and ending with the diffusion to customers (Godin, 2006).

Other innovation research streams, however, recognize networked and systemic views that describe the participation of a broad set of actors in innovation processes. Work on innovation networks, for example, highlights the importance of universities, other firms, and research organizations, both tightly and loosely coupled, and views innovation processes as interactive, both internally and externally to firms (e.g., Dodgson et al., 2008; Möller and Rajala, 2007; Sundbo and Gallouj, 2000). Similarly, innovation scholars are also recognizing the role of users in both the creation and use of technologies (Geels, 2004; Von Hippel, 2007) and the formation of business models (Doganova and Eyquem-Renault, 2009). Along the same line, other contemporary innovation research is beginning to point to systemic socio-technical processes that mold the perceptions of technologies and technological change itself (Geels, 2004; Nelson and Nelson, 2002).

Likewise, work on markets and their change mechanisms has started to overcome rather static, neoclassical views of markets by describing their formation as institutional (Humphreys, 2010), systemic (Giesler, 2008), and socio-material (Nenonen et al., 2014) processes, or as *performative practices* (Kjellberg and Helgesson, 2006, 2007). A performative perspective on markets, for example, explicates how ideas about markets shape the enactment of markets. Stated alternatively, a performative view conceptualizes markets as both enacted market practices and blueprints that shape future enactments of markets (Kjellberg and Helgesson, 2006, 2007).

This chapter informs and extends these emerging views on technologies, business models, and markets by arguing that a service ecosystems perspective can reconcile historically divergent views on innovation and explicate the involvement of broader sets of actors in innovation processes. Specifically,

the chapter highlights that all three aspects of innovation are grounded in similar, inter-related institutionalization processes. In the view of Vargo et al. (2015: 64), an ‘institutional view of innovation can establish a robust, parsimonious and dynamic framework for studying and understanding the central drivers of technological advancements, and provide insight to how the same practices and processes that guide value cocreation drive the innovation of markets as well’.

In short, the institutional approach to innovation we embrace in this chapter ‘is unifying and elaborative, rather than divisive and exclusive’ (Wieland et al., 2017: 926). First, we introduce the service-oriented, systemic, and institutional perspective of the service ecosystem and articulate how this perspective can inform converging views on innovation. Second, using this service ecosystems lens, we reconceptualize *technological, business model, and market aspects of innovation* and argue for institutionalization – the maintenance, disruption, and change of institutions (Lawrence and Suddaby, 2006) – as a foundational process for all three. Third, we discuss how institutionalization in general and institutional complexity in particular shape innovation in service ecosystems. Finally, based on this reconceptualization of innovation, we discuss implications for academicians and practitioners.

A SERVICE ECOSYSTEMS PERSPECTIVE AS THE THEORETICAL FOUNDATION FOR INNOVATION

The conceptualization of a service ecosystem emerged through the development and evolution of service-dominant (S-D) logic (Vargo and Lusch, 2004, 2008, 2016). Foundational to S-D logic is the notion that *service* – the use of one’s resources to benefit (i.e., to serve) another actor – is the purpose of all exchange (Vargo and Lusch, 2004, 2008, 2016). This service can be provided directly,

or indirectly through a good. Viewed from an S-D logic perspective, ‘all economic and social actors are resource integrators’ and ‘value is cocreated by multiple actors, always including the beneficiary’ (Vargo and Lusch, 2016: 8). In this view, value is not created and then exchanged through dyadic interactions and discrete transactions; it is cocreated through the integration of resources from many sources within networks of actors. The S-D logic framework captures this holistic view in its definition of a *service ecosystem*, which Vargo and Lusch (2016: 10–11) describe as ‘a relatively self-contained, self-adjusting system of resource-integrating actors connected by shared institutional arrangements and mutual value creation through service exchange’.

As this definition highlights, *institutional arrangements* – ‘sets of interrelated institutions that together constitute a relatively coherent assemblage that facilitates coordination of activity in value-cocreating service ecosystems’ (Vargo and Lusch, 2016: 18) – are the mechanisms through which these service ecosystems self-govern and self-adjust. An institutional and systemic view provides a holistic and interactive perspective which points

away from the fallacy of the conceptualization of the linear, sequential creation, flow and destruction of value and toward the existence of a much more complex and dynamic system of actors that relationally cocreate value and, at the same time, jointly provide the context through which ‘value’ gains its collective and individual assessment. (Vargo and Lusch, 2011: 182)

The institutional nature of service ecosystems shows ‘that each instance of resource integration, service provision, and value creation changes the nature of the system to some degree and thus the context for the next iteration and determination of value creation’ (Wieland et al., 2012: 15). However, in the mainstream marketing literature, work on institutions and institutional arrangements has, with some notable exceptions (e.g., Alderson, 1965; Araujo and Spring, 2006;

Arndt, 1981; Chaney et al., 2016; Dolbec and Fischer, 2015; Duddy and Revzan, 1953; Heide and John, 1992; Humphreys, 2010), so far not received adequate attention, despite being prevalent in the related economic, organizational, and sociological literatures. This appears to be rooted in a perspective that is primarily concerned with the study of ‘what is’ rather than processes of innovation and change.

AN INSTITUTIONAL VIEW OF TECHNOLOGY, BUSINESS MODELS, AND MARKETS

The separation of technological and market aspects of innovation has a long tradition in the innovation literature. Schumpeter (1934), for example, classified product innovation and market innovation as distinct aspects of innovation. Similarly, Abernathy and Clark (1985) describe two domains of innovative activities: technology/production and market/customer. The former domain of innovation comprises the production and operation processes involved with the design and development of new products, while the latter comprises the distribution of products and the development of relationships with customers.

This bifurcation can still be found in much of the innovation literature (e.g., Hauser et al., 2006) and creates a barrier to the understanding and consideration of the full range of possibilities for innovation. To make matters worse, possibly driven by the Internet and a shift toward postindustrial economies, the literature has also started to discuss business model innovation as a separate but related process (Zott et al., 2011). In this section, we explain how a service ecosystems perspective can inform views on technological, business models, and market aspects of innovation by highlighting how such an institutional foundation can provide a unifying framework for all three.

Technology

Prior research broadly acknowledges the important role of technology in innovation. However, the discussion of technology in innovation is often quite fragmented, as the term itself has multiple and disparate meanings (Pinch, 2008). Furthermore, a large majority of the discourse addressing technology focuses on physical aspects of innovation, which highlight material constraints. Thus, in order to better understand the role of technology in innovation a deeper consideration of what technology is and how it relates to innovation is needed.

Several conceptualizations of technology specifically highlight the non-physical elements of technology in addition to the physical ones. Arthur (2009: 28), for example, accentuates the social aspects of technology by underscoring the importance of practices (i.e., routine activities) and defining 'technology as an assemblage of practices and components that are means to fulfill human purposes'. In this way, innovation is not driven by the development of new things, but by the solving of problems. This focus on knowledge and practices departs from traditional conceptualizations of technology as physical devices. In particular, Arthur (2009) suggests that technology can be considered as encompassing a wide range of phenomena, both tangible 'hardware' and intangible 'software', such as contracts and legal systems.

Whereas Arthur (2009) considers multiple types of technology, Hughes (1989: 6) offers a broader definition of technology that avoids distinguishing between the physical and non-physical altogether. He defines technology as 'the effort to organize the world for problem solving so that goods and services can be invented, developed, produced and used'. This approach focuses on technology as a solution to a problem, which often results in the development of a market offering. Similarly, and even more broadly, Mokyr (2004) describes technology as 'useful knowledge'. In this view, technological

innovation is centered on the (re)combination of 'useful knowledge'. 'This draws attention to technologies as operant resources or, stated alternatively, as applications of knowledge, competences, and capabilities (Akaka and Vargo, 2013).' According to Hunt (2000: 188), these dynamic and intangible resources 'may be equated and defined as socially complex, interconnected combinations of tangible resources' 'and intangible basic resources' 'that fit together in a synergistic manner'. Thus, concepts such as resources, technologies, and capabilities are often interchangeable in innovation research.

Hunt's work draws attention to the social nature of technologies and resources, which aligns with views on the social construction of technology. Pinch and Bijker (1984) highlight the importance of social groups in constructing technologies as well as value perceptions. In this way, technology is not considered to have inherent value. Rather, value perceptions are shaped by institutions that help people make sense of technologies. This 'interpretive flexibility' (Pinch and Bijker, 1984) suggests that the value of any technology can vary depending on personal perceptions as well as social and cultural contexts. In other words, people can construct radically different meanings of particular technologies depending on the institutions, as well as the interpretations, that frame the evaluation or determination of value (Nelson and Nelson, 2002; Pinch, 2008; Vargo and Lusch, 2016; Vargo et al., 2015).

This social perspective draws attention to systemic views of value and value creation and suggests technologies do not possess 'latent value'. Instead, the value of a technology is shaped through institutional processes and the integration of a technology with other practices and resources. For example, a gas turbine engine in the hands of the ancient Romans is no more than a lump of interestingly shaped metal; it participates in the creation of 'flight' only when combined with other technologies necessary to create the aircraft, power the engine, pilot the aircraft, etc. Then, to create accessible

flight transportation, we need the technologies and institutional processes involved in airports and airport management, flight management, ticket procurement, etc. These institutional processes enable and constrain the emergence, stabilization, and destruction of predominant meanings and uses (Pinch and Bijker, 1984). Thus, technological developments need to be viewed through an institutional lens to understand their origins and evolution. Consequently, upon close examination the distinction between ‘technology’ and ‘institution’ blurs and disappears, enabling an understanding of innovation in technology as innovation in institutions.

Business Models

Whereas business models have become an important element of the innovation literature, marketing scholars have, until recently, paid little attention to their formation and application. Arguably, some of this lack of interest was related to the fact that the business model concept, while intuitively appealing, did not have a clear, established definition. A detailed literature review from Zott et al. (2011), for example, shows that business models have been described as *statements, descriptions, representations, architectures, conceptual tools or models, structural templates, methods, frameworks, patterns, and sets of capabilities*.

Despite these inconsistent conceptualizations of the concept, much of the early business model literature adopted firm-centric approaches that focused on the use and coordination of organizational resources in order to create and deliver value to customers for appropriate monetary compensation. Stated alternatively, business model innovation was seen as a firm-centric process in which companies developed new ways to exploit business opportunities (Chesbrough and Rosenbloom, 2002).

More recently, however, ‘consistent with broader business literature trends, research on business models has begun to adopt more

networked perspectives that underscore the interplay among decision variables and broad sets of actors interacting directly and indirectly’ (Wieland et al., 2017: 926). Zott et al. (2011: 6), for example, describe a firm’s business model as ‘a system of interdependent activities that transcends the focal firm and spans its boundaries’. Similarly, Doganova and Eyquem-Renault (2009) highlight that business model development is a systemic process that requires the replication and formation of shared understandings (i.e., collective action); a thought echoed by Chesbrough and Rosenbloom (2002: 531), who point out that the decision-making processes of actors are mediated by ‘cognitive biases’, ‘previous experiences’, and ‘path-dependencies’.

Building on these more systemic views, Wieland et al. (2017) recently argued that business models also need to be viewed as having an institutional foundation. Specifically, they define business models as ‘dynamic assemblages of institutions that, through the performative practices (i.e., actions, constructions) of actors, reciprocally link and influence technological and market innovation and contribute to the viability of these actors and the viability of the service ecosystems of which they are a part’.

Markets

Recent work highlights the dynamic and systemic nature of markets (e.g., Kjellberg and Helgesson, 2007; Vargo and Lusch, 2016). Whereas traditional conceptualizations of markets depict pre-existing or static ‘a priori’ realities (Mele et al., 2014), emerging views suggest that markets are continually *performed* through the actions and interactions of multiple actors (e.g., Kjellberg and Helgesson, 2007). This dynamic approach recognizes that markets are formed and evolve through social processes (Giesler, 2012; Humphreys, 2010), and are embedded within socio-material (Nenonen et al., 2014), political (Fligstein, 1996), and discursive

(Rosa et al., 1999) processes as well. For example, Humphreys (2010) and Kates (2004) showcase the role of legitimization in market creation. On the other hand, Rosa and colleagues (1999: 68) suggest that market narratives 'are critical sensemaking tools among participants in social systems'. Along those lines, Venkatesh et al. (2006) argue for the conceptualization of markets as sign systems, which highlights symbolic meanings as a central aspect of markets.

The social construction of markets is also clearly articulated in the work of Kjellberg and Helgesson (2006, 2007). Their 'markets as practice' approach views markets as being 'performed' through interlinked practices associated with exchange, normalization, and representation. In other words, markets are formed through the enactment of routine actions that contribute to exchange of resources, development of social norms and rules, and the creation of symbols and meanings. Combined with the literature above, these social approaches to markets seem to converge on an institutional view, which suggests that markets can be conceptualized as 'institutional solutions' (Lusch and Vargo, 2014), which emerge within particular social and cultural contexts.

Thus, an institutional approach to markets aligns with emerging views on socially constructed technologies and business models and implies that markets and value perceptions are continually reconstructed through social practices and processes. Furthermore, this view on markets underscores the phenomenological nature of markets and indicates that multiple versions of markets may co-exist and that co-existing markets, at least partially, need to be reconciled (Azimont and Araujo, 2007). In this view, innovation is an ongoing process that results in the development of technologies, business models, and markets. This process of recombining useful knowledge and skills fosters processes of institutionalization, which drive the reconciliation of institutional tensions and contradictions and lead to institutional change.

INSTITUTIONALIZATION AS THE UNDERLYING PROCESS OF INNOVATION

We have shown that a service ecosystems perspective highlights the foundational role of institutions in innovation processes, and that this institutional approach applies to the development and formation of technologies, business models, and markets. Specifically, since innovation, by definition, refers to the process of changing a status quo, such as the enactment of novel practices and the creation and perception of useful knowledge, a service ecosystems approach refocuses the study of innovation on understanding how institutions are formed and reformed, or how institutionalization occurs. This foundational role to technologies, business models, and markets is visualized in Figure 29.1. In this view, innovation processes are embedded and form 'holistic, meaning-laden experiences in nested and overlapping service ecosystems, governed and evaluated through their institutional arrangements' (Vargo and Lusch, 2016: 6).

Foundational to any institutional change is the question of how actors, who are guided by rules, norms, and taken-for-granted assumptions and beliefs, (1) are able to imagine alternatives to the current institutional order and (2) can influence, and possibly change, the very institutions that 'govern' them (Battilana et al., 2009). The sociological and organizational literatures have been instrumental in addressing this tension between agency (i.e., conscious choice) and structure (i.e., normative forces that constrain the actions of individuals in social systems).

Sociological work on practice theory, such as Bourdieu's (1977) 'habitus' and Giddens' (1984) structuration theory, provide balanced views that capture and explain this tension in the relationships between actors and institutions. In this chapter, we adopt the *institutional work* framework to provide a balanced view of institutional change that, consistent with the conceptualization of the service

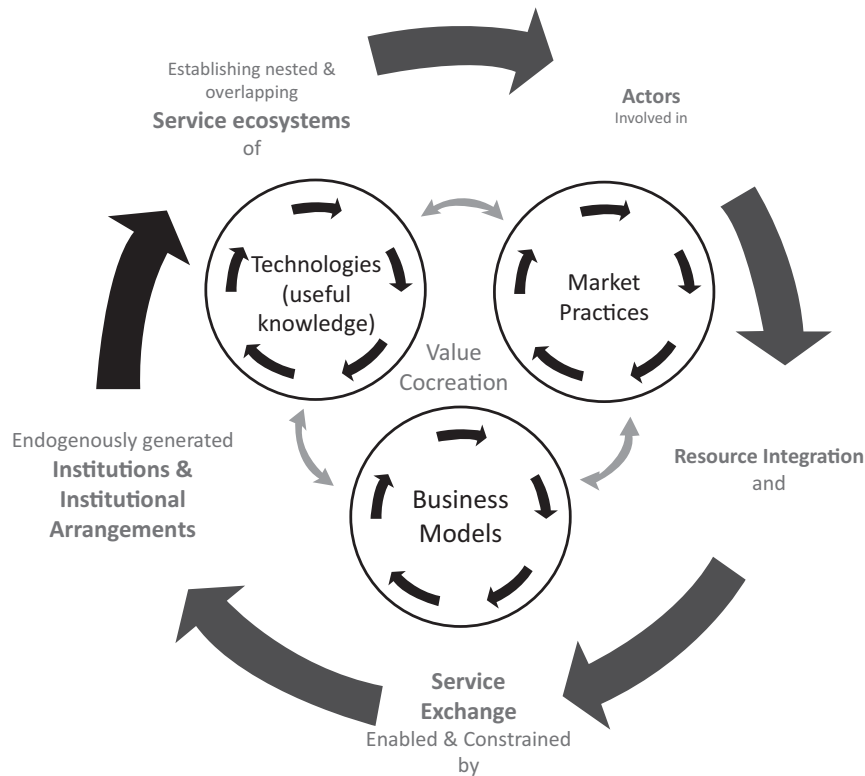


Figure 29.1 The institutional foundation of markets, technologies, and business models: a fractal, service ecosystems perspective

Source: Wieland et al. (2017).

ecosystem, describes the activities of diverse, spatially dispersed actors and the interactions among them (Hardy and Maguire, 2008; Lawrence and Suddaby, 2006).

Institutional Work

Drawing on seminal work from Giddens (1984), DiMaggio (1988), Oliver (1991), and Bourdieu (1977), Lawrence and Suddaby (2006) articulate that the analysis of institutional change needs to go beyond the creation of new institutions. Specifically, Lawrence and Suddaby argue, in an approach that has become known as ‘institutional work’, that such an analysis needs to include the purposive action of actors (e.g., individuals and organizations) in the repairing and concealing

of tensions and conflicts among their institutional arrangements.

Institutional work highlights that the creation of new institutions cannot be viewed independently from the maintenance and disruption of existing institutions (Lawrence et al., 2009). In fact, as Creed et al. (2010) point out, institutional work of systemic actors is never just aimed at either the creation, maintenance, or disruption of institutions, but involves overlapping change, maintenance, and disruption components. Novel and innovative practices, for example, viewed from an institutional perspective, cannot be understood without the *path dependencies* and *lock-ins* that seemingly constraining institutions provide. As stated, in the context of business model development, Chesbrough and Rosenbloom (2002: 531) point out that

the decision-making processes of actors are mediated by path-dependencies. Similarly, Kjellberg and Helgesson (2007) highlight that the enactment of market practices, in a performative manner, translate from existing market practices and, thus, possess traces of path dependencies. Path dependencies can therefore be conceptualized as deeply established institutional arrangements that guide existing market practices and perceptions of resources.

While such path dependencies promote institutional maintenance, they are, at the same time, also necessary components of institutional change. Institutions have both constraining and enabling properties since human actors can only function when social life is predictable and meaningful, or, stated alternatively, when the range of possible options has been reduced (Callon, 1998b; Scott, 2008). Loasby (2000) highlights this tension between the enabling and constraining properties of institutions by describing them in the context of innovation as 'mixed blessings'. Actors, due to limits in their cognitive abilities, rely on value assumptions, cognitive frames, rules, and routines (i.e., institutions) to function in complex environments (Simon, 1996), and even actions that are aimed at transforming and disrupting institutions are themselves institutionally embedded (Giddens, 1984; Lawrence and Suddaby, 2006).

As actors engage in value-creating activities in service ecosystems, they interact with other actors and their resources and simultaneously engage in the institutional work that shapes their social contexts (e.g., Chandler and Vargo, 2011; Edvardsson et al., 2011). Thus, consistent with a service ecosystems view, 'it is through an iterative and dynamic process, involving firms, customers and other actors, that value co-creation drives the institutionalization (i.e., maintenance, disruption and change) of new forms of value creation and, ultimately, innovation, occurs' (Vargo et al., 2015: 68).

Institutional Complexity

Institutional work can help to explain the process of how actors can influence the very institutions that govern them. However, these institutional work processes, and all innovation processes, rely on the ability of actors to imagine alternatives to the current institutional order. Foundational to this ability is the loosely coupled and nested nature of service ecosystems. Social structure, in these systems, cannot be viewed 'as an isolated, abstract phenomenon but, rather, as part of a larger whole composed of multiple, interpenetrating social structures operating at multiple levels and in multiple sectors' (Seo and Creed, 2002: 225).

This institutional complexity of loosely coupled systems, as Benson (1977) points out, leads to incompatibilities both within and among institutional arrangements. Actors 'hop and bridge from one social world to another in constructing change' (Thornton and Ocasio, 2008: 117) as they navigate overlapping institutional arrangements. The frictions and incompatibilities of these overlapping institutional arrangements allow actors to apply institutions from a wide range of circumstances and 'are areas of opportunity that can be exploited by individuals and organizations in identifying and solving problems and garnering support through new combinations of existing symbols and practices' (Thornton et al., 2012: 62).

Thus, it is these institutional frictions and incompatibilities that elevate 'actors' creative problem solving', or, their ability to imagine alternatives and to engage in institutional work (Sitaloppi et al., 2016). Consistent with the iterative and dynamic view of institutional work, this creative problem solving is a process in which multiple actors engage in 'ongoing negotiations, experimentation, competition, and learning', until common but always imperfect institutional arrangements form (Zietsma and McKnight, 2009: 145). As stated, these institutional arrangements and their frictions and incompatibilities can

only be understood by employing a perspective that recognizes that institutions operate at multiple levels of aggregation, such as relative perspectives of micro-level institutions of individuals, groups, and organizations; meso-level institutions such as those associated with professions or industries; and macro-level societal institutions (Chandler and Vargo, 2011; Lawrence and Suddaby, 2006; Mele et al., 2014; Thornton et al., 2012).

THE ROLE OF ACTORS IN INSTITUTIONALIZATION PROCESSES

We have shown that a service ecosystems perspective of innovation highlights that technologies, business models, and markets possess an institutional foundation. This perspective supports Orlikowski's (1992) finding that technology is both an outcome and a medium of human action. Similarly, this perspective also highlights that 'innovation does not automatically occur when actors (e.g., firms), or groups of actors introduce new ideas[,] products [or business models], but only when new practices (i.e., solutions) become institutionalized' (Vargo et al., 2015: 68).

Consequently, a service ecosystems perspective reframes the role of actors in innovation processes. Traditionally, based on perceptions of unidirectional value flows and linear innovation models, firms and entrepreneurs were viewed as change agents (i.e., innovators) and customers were viewed as somewhat passive adopters or non-adopters. An institutional view, on the other hand, shows that institutional change is not based on the heroic actions of actors who can 'disembody from the social world to create change' (Thornton and Ocasio, 2008: 117), but on systemic processes in which broad sets of actors engage in institutional work. These systemic actors cocreate institutions and institutional change (innovation) through multiple iterations of institutional

developments until shared conceptions of problems and solutions emerge (Zietsma and McKnight, 2009).

This cocreated nature of 'institutional work' requires a move away from the pre-designated roles of 'producers'/consumers', 'firms'/customers', and 'innovators'/adopters' that are commonly found in the innovation literature. Instead, viewed from a service ecosystems perspective, all social and economic actors (e.g., individuals, households, firms etc.) engage in exchange and value creation in a fundamentally similar way. These actors share, integrate, and apply resources in service-for-service exchange and, at the same time, shape conceptions of problems and solutions or relationally cocreate value and jointly provide the context through which value gains its collective and individual assessment (Giddens, 1984; Slater, 2002; Vargo and Lusch, 2011).

This does not mean, however, that all actors are identical. In fact, disassociating actors from their pre-designated roles such as producers, consumers, or innovators shows the opposite. It enables a more nuanced view of the institutional arrangements that guide the interaction of actors with other actors and their resources and how these actors engage in institutional work.

RECONCEPTUALIZING TECHNOLOGICAL, BUSINESS MODEL, AND MARKET ASPECTS OF INNOVATION

We argue that a service-based, institutional, and ecosystemic perspective of S-D logic extends innovation beyond firm activities and new product development. Specifically, the consideration of institutionalization as the underlying process for innovation of technologies, business models, and markets highlights that innovation can be conceptualized as the collaborative recombination of practices that provide the means for exploiting

new or existing opportunities (i.e., solutions for new or existing problems). As stated, Arthur (2009) describes technology as being created through *combinatorial evolution*. In his view, new technology (i.e., useful knowledge) is created through the recombination of existing technologies and existing institutions. These combinatorial processes then can lead to the formation of new value propositions.

Furthermore, we show that the principle of the combinatorial evolution can also be extended to the formation of business models and markets. Kjellberg and Helgesson (2007), for example, point out that markets are enacted based on translation processes from existing market practices. Consequently, changes in markets can be conceptualized as being driven by the combinatorial evolution that emerges as actors navigate and apply institutions that loosely coupled and nested service ecosystems provide.

The combinatorial evolution of technologies, business models, and markets highlight the performative nature of innovation processes in which the theories and social structures of actors influence the enactment and interplay of solutions (Callon, 1998a; MacKenzie, 2003). Netflix, for example, introduced a new business model through innovation in the distribution and pricing of an existing product technology (DVDs). As stated, new markets do not form (i.e., innovation does not occur) when actors (e.g., firms), or groups of actors (e.g., innovation networks), introduce new technologies, but instead when *new practices (i.e., solutions)*, through the ongoing cocreation of value among systemic actors, *become institutionalized* (Vargo et al., 2015). This broadens the domain of innovation to include all elements of the cocreation process, removing artificial boundaries created by the notion that a value proposition inheres in a product.

Thus, a service ecosystems perspective requires researchers to zoom out and view technological, business model, and market aspects of innovation not as separate

sequential processes, but rather as related elements of institutional, innovative processes, which always involve the participation of a broad set of value-cocreating actors in social, as well as technical, developments. The cocreation process involves multiple actors each performing active roles in value creation, and useful innovation can occur at any point in the cocreation process. This zooming out is a necessary step in the investigation of institutional phenomena. Chandler and Vargo (2011), for example, claim that a deeper analysis of resource integration and value creation practices requires *oscillating foci*, among micro, meso, and macro levels. A broadened focus, however, does not mean that a service ecosystems perspective locks in the macro position, but rather highlights that zooming in is equally important as zooming out, once the broader context of innovation is understood.

IMPLICATIONS AND FUTURE RESEARCH DIRECTIONS

An institutional approach to innovation helps to reconcile the distinction between technological, business model, and market aspects of innovation by focusing on underlying social practices and processes that enable all three. Redirecting the focus of innovation onto dynamic and systemic aspects provides a more comprehensive framework for considering how value is created and innovation occurs and allows cross-fertilization among what has previously often been treated as separate research streams. Importantly, a service ecosystems perspective (Vargo and Lusch, 2016) extends social views on innovation to explicate the embeddedness of technologies, business models, and markets within intersecting institutional arrangements. However, the understanding of how institutionalization drives innovation is still in its infancy and prior work on the role of institutions in innovation has only begun to

trace the intricate processes by which both emerge.

Consideration of a service ecosystems view of innovation highlights the importance of institutional maintenance, disruption, and change. Viewed through this lens, innovation is always a cocreational process by which actors integrate resources to resolve institutional dissonance and develop novel solutions. Specifically, this lens accentuates that resources and their integration practices, due to their institutional foundation, can change very dynamically. Consequently, a service ecosystems perspective highlights the 'importance of gaining access to resources, such as capabilities and competencies, rather than owning them' (Wieland et al., 2017: 937). Hence, in the context of innovation, it is imperative to understand the nature of institutional arrangements; how they coordinate and compete as well as converge and diverge. It seems that exploring linkages across various levels (i.e., micro, meso, and macro) of institutional interaction can potentially lead to fruitful outcomes in understanding, nurturing, and enabling innovation.

The consolidation of technological, business model, and market aspects of innovation under the umbrella of institutional change also enables researchers to focus on underlying drivers of the recombination of knowledge and skills and the emergence and institutionalization of new solutions. To capture these institutionalization processes, scholars 'must break with the overreliance on cross-sectional and experimental data that is prevalent in much of the marketing literature and, instead, focus on longitudinal research to capture systemic developments over time' (Wieland et al., 2017: 937).

This ongoing conceptualization of innovation also provides a framework for developing theories of entrepreneurship, such as effectuation (Read et al., 2009), and reconceptualizing entrepreneurship as the cocreation, rather than exploitation, of opportunities (Whalen and Akaka, 2016). Furthermore, a service ecosystems view of innovation, by

drawing from literature streams such as sociology, social psychology, organizational studies, and communications, in which human collaboration and sensemaking are the units of analysis, not only provides insights into thinking about innovation and entrepreneurship, but also extends our understanding of markets and exchange more generally. It provides an important avenue for rethinking value creation and innovation as a firm-centered activity to considering how ongoing institutionalization processes contribute to the continual cocreation of new solutions.

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