



Reconciling Technological, Market, and Business Model Innovation

S-D
Logic

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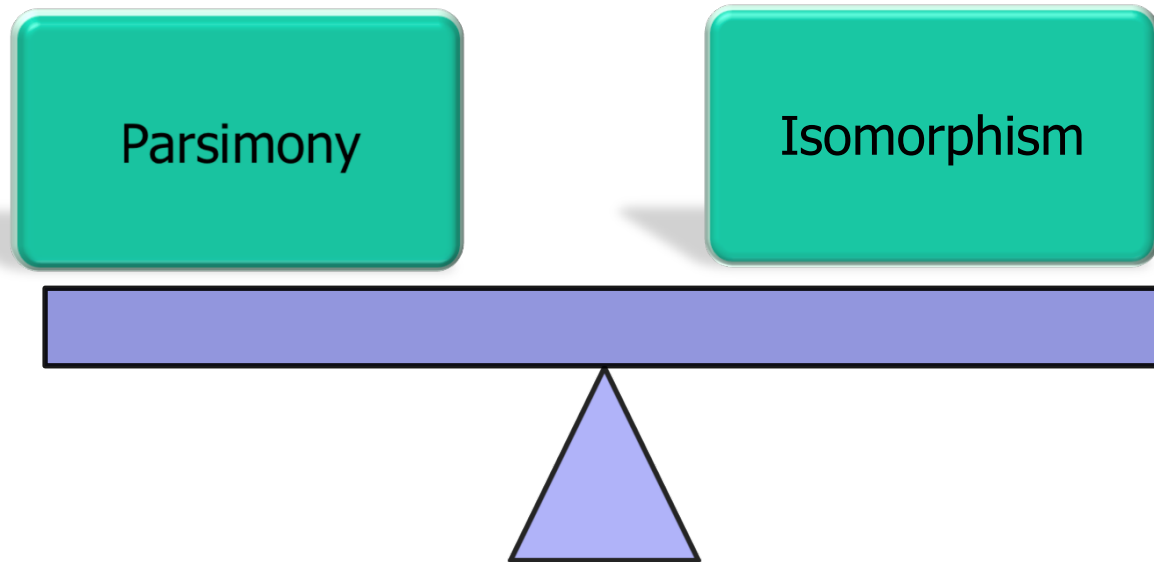
The Importance of the Right Logic

- Without **changing our pattern of thought**, we will not be able to solve the problems we created with our current pattern of thought
 - Albert Einstein
- The greatest **danger** in times of turbulence is not the turbulence: it is to **act with yesterday's logic**.
 - Peter F. Drucker
- The main power base of paradigms may be in the fact that they are **taken for granted** and not explicitly questioned
 - Johan Arndt
- What is **needed** is not an interpretation of the utility created by marketing, but a marketing **interpretation of the whole process creating utility**.
 - Wroe Alderson

Science: Striving to Explain the Complex with a Simple Structure



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'The grand **aim of all science** is to cover the **greatest number of empirical facts** by logical deduction from the **smallest number of hypotheses or axioms**'.

Einstein



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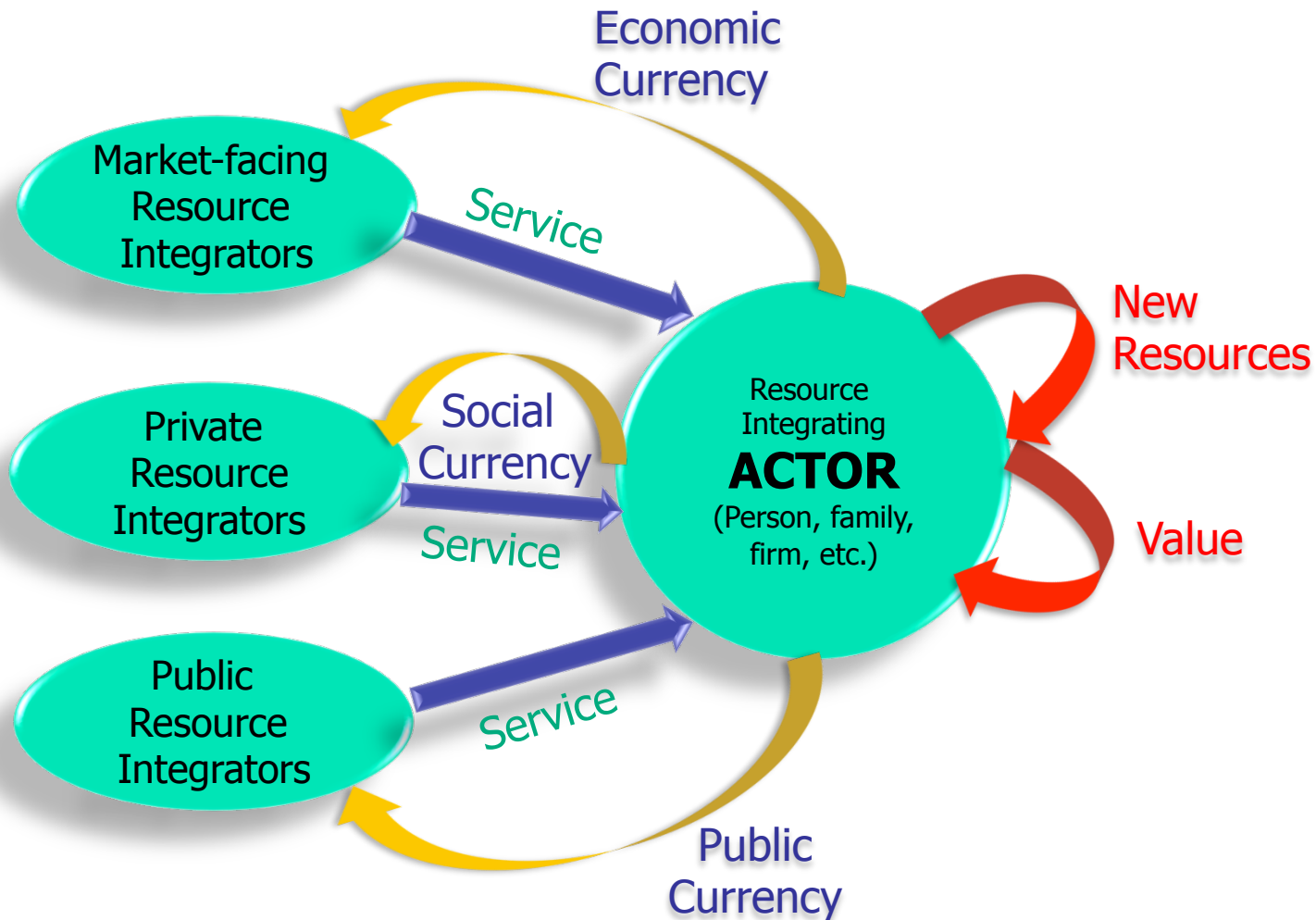
Axioms of Service-Dominant Logic

| Premise | | Explanation/Justification |
|-----------|---|--|
| A1 | Service is the fundamental basis of exchange. | The application of operant resources (knowledge and skills), "service," is the basis for all exchange. Service is exchanged for service. |
| A2 | Value is always cocreated by multiple actors, including the beneficiary | Implies value creation is interactional and combinatorial. |
| A3 | All economic and social actors are resource integrators | Implies the context of value creation is networks of networks (resource-integrators). |
| A4 | Value is always uniquely and phenomenological determined by the beneficiary | Value is idiosyncratic, experiential, contextual, and meaning laden. |
| A5 | Value cocreation is coordinated through actor-generated institutions and institutional arrangements | Institutions provide the glue for value cocreation through service-for-service exchange |

Value Co-creation through Resource Integration & Service Exchange



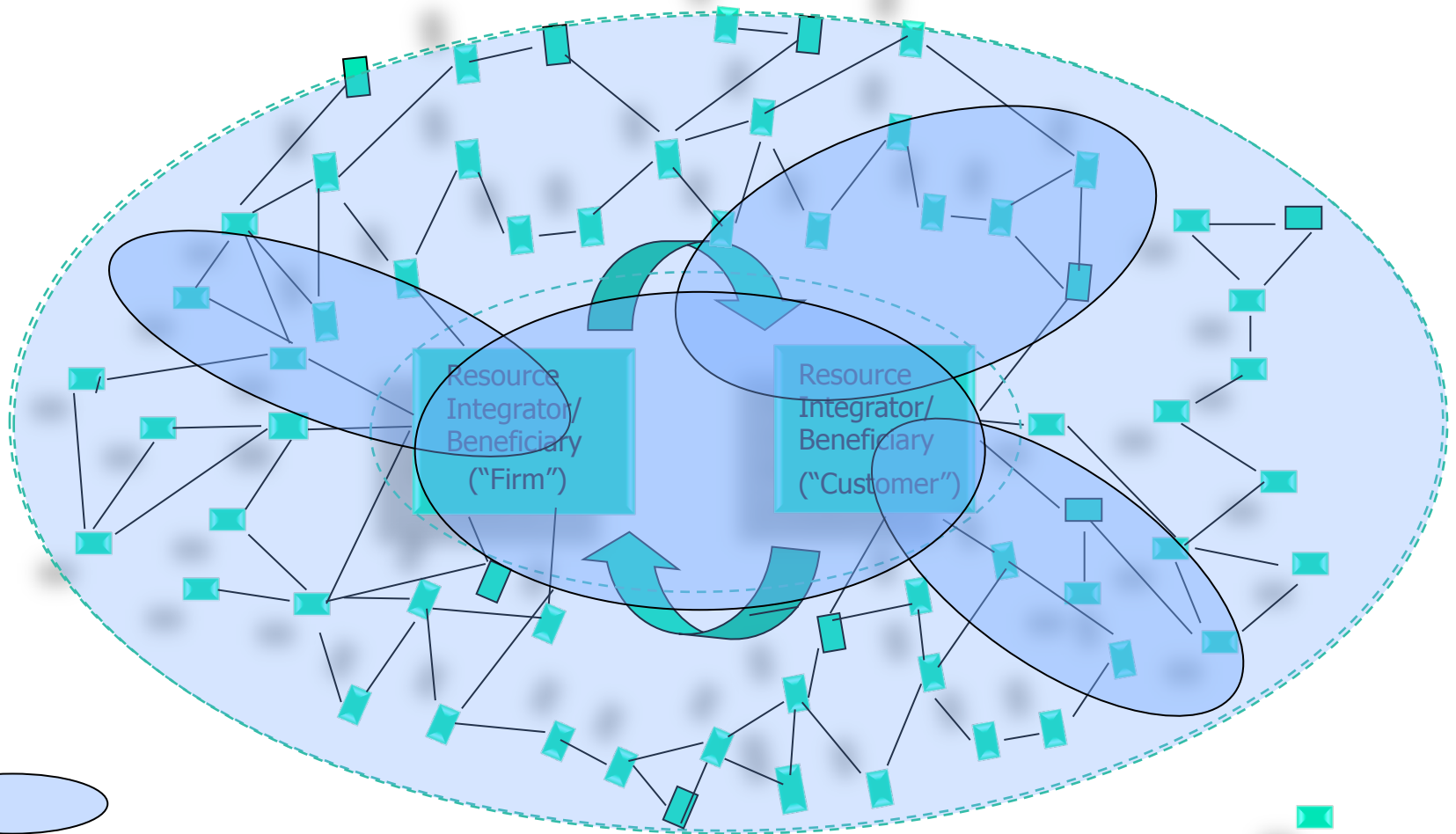
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Resource Integration & Service-for-service Exchange within Service-ecosystems



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Institutions & Institutional
arrangements/logics

Resource Integrators

The Structure and Venue of Value Creation: Institutions & Service Ecosystems



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Institution

- “any **structure or mechanism** of social order and **cooperation governing the behavior** of a set of individuals within a **given human community**.
- (Stanford Encyclopedia of Social Institutions)



Institutional Arrangements

- **Higher-order** assemblages of **interrelated institutions**



Service Ecosystem (S-D logic)

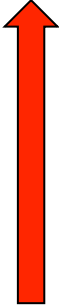
- relatively self-contained, **self-adjusting systems of resource-integrating actors** connected by **shared institutional arrangements** and **mutual value creation through service exchange**.

Resource Integration & and the Structuration of Service Ecosystems

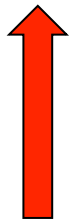


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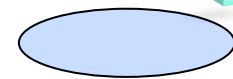
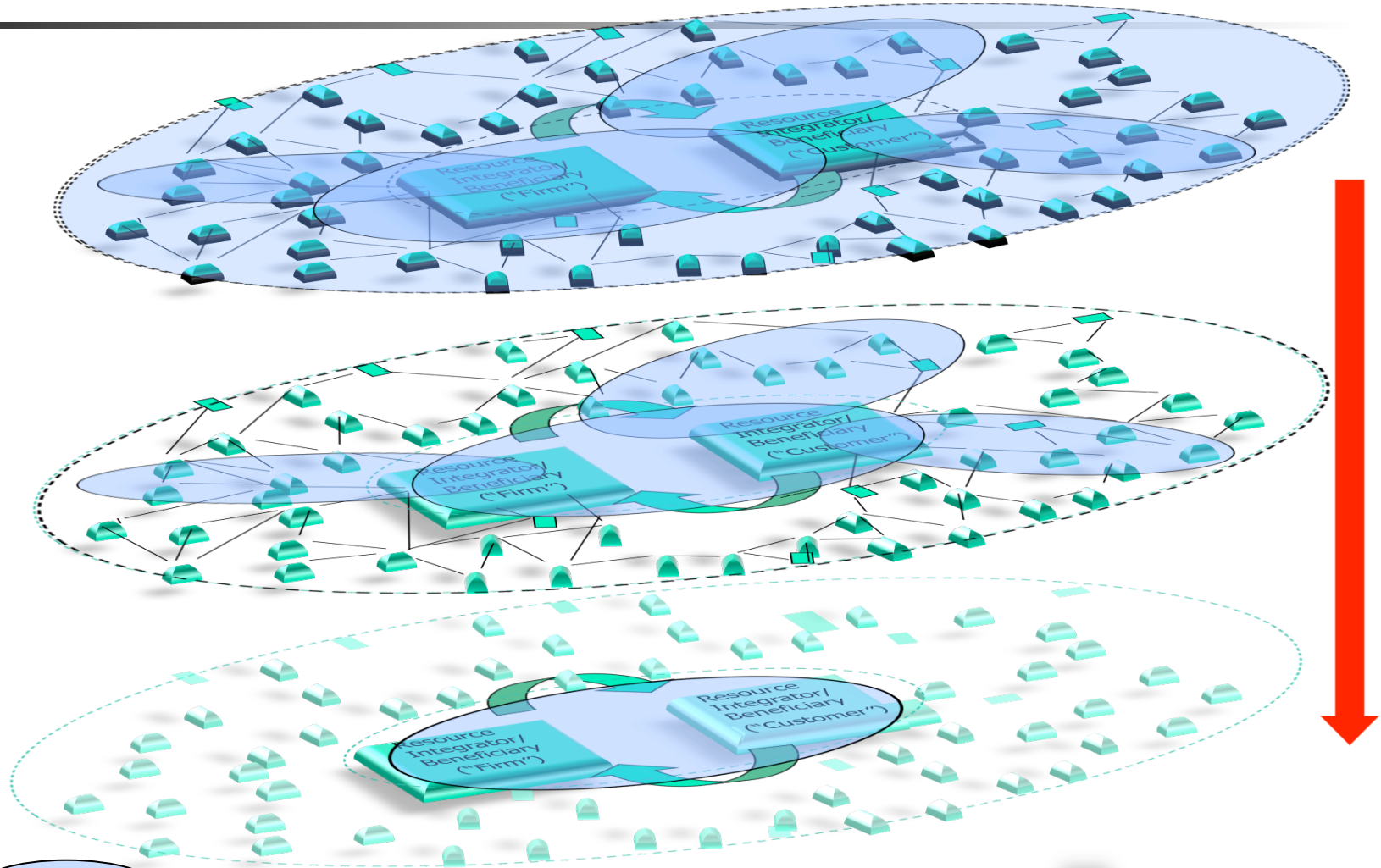
Macro



Meso



Micro



Institutions

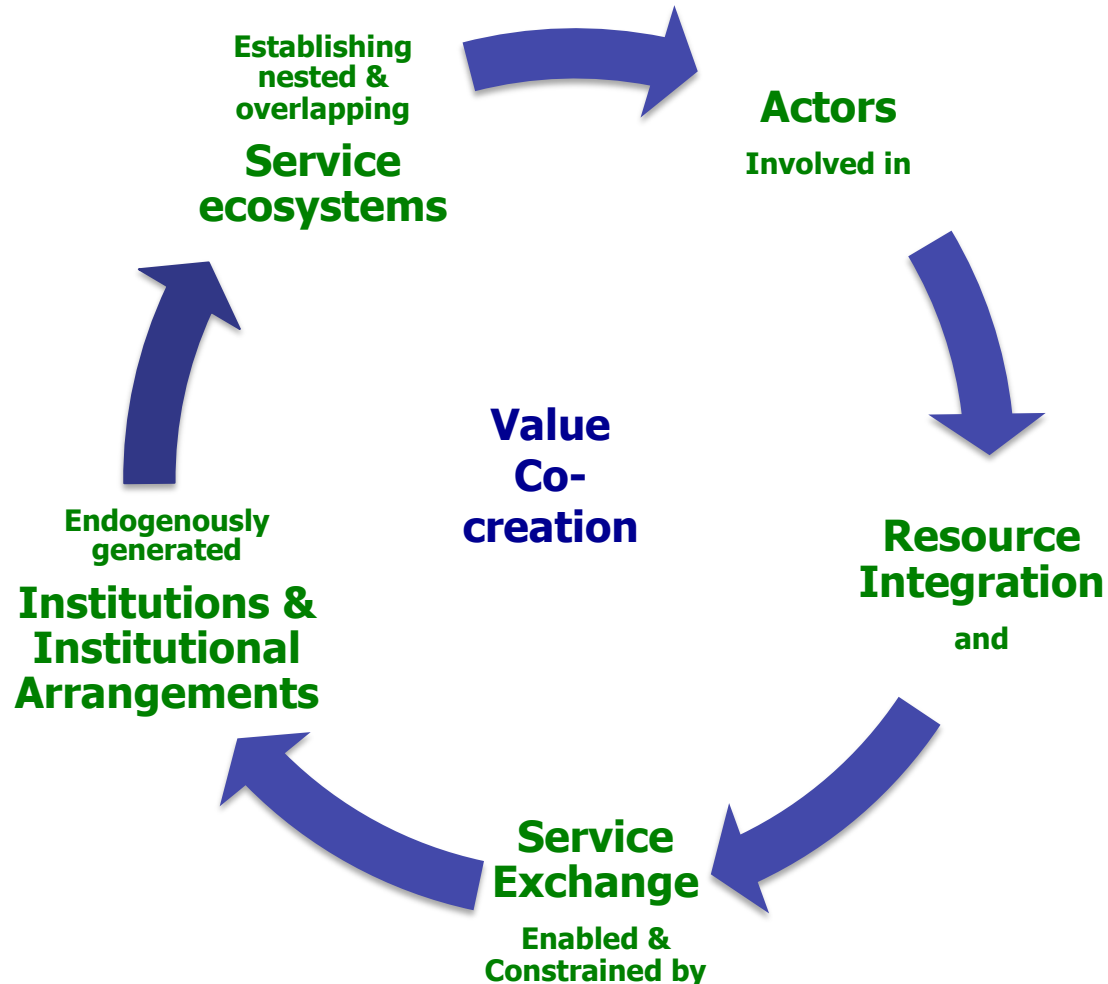


Resource Integrators

The Core Narrative & Processes of Service-Dominant Logic



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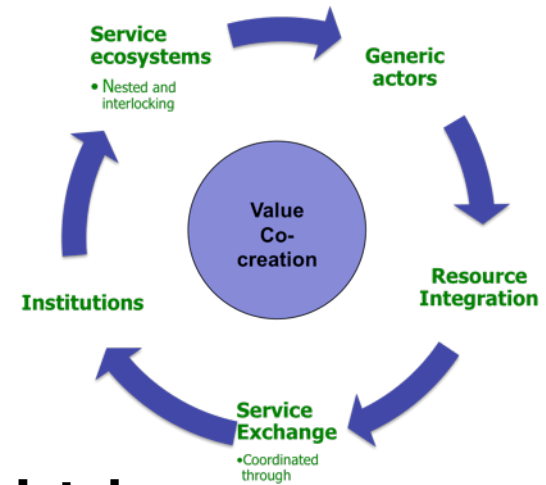
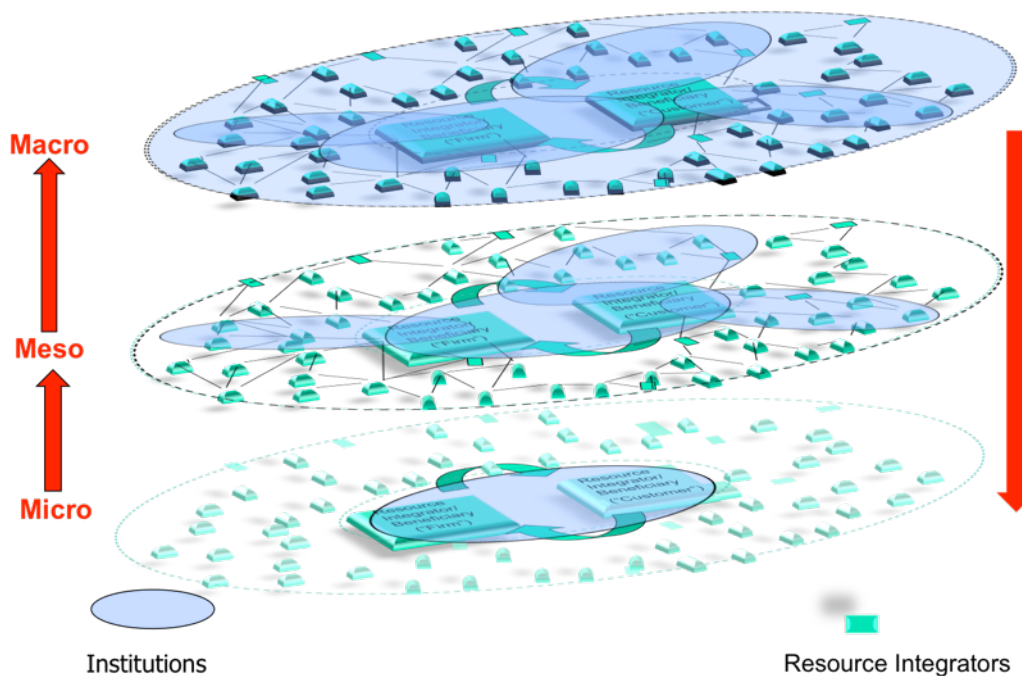




"Hip-Pocket" S-D Logic

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Components
& Structural Perspectives



Societal:
National, Global, etc

(Sub)culture:
Brand, Market, "industry, etc

Exchange
B2C, B2B, C2C, etc



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THE SIGNIFICANCE OF INSTITUTIONS

The Structure and Venue of Value Creation: Institutions & Service Ecosystems



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Institution

- “any **structure or mechanism** of social order and **cooperation** governing the behavior of a set of individuals within a **given human community**.
- (Stanford Encyclopedia of Social Institutions)

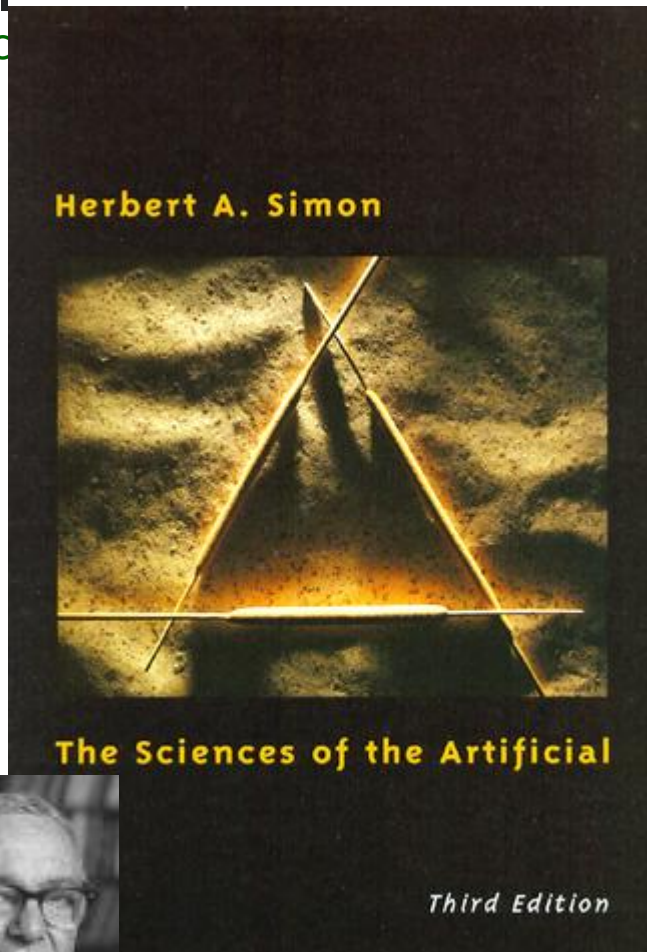
Service Ecosystem (S-D logic)

- relatively self-contained, **self-adjusting systems** of **resource-integrating actors** connected by **shared institutional arrangements** and **mutual value creation through service exchange**.



The Sciences of the Artificial

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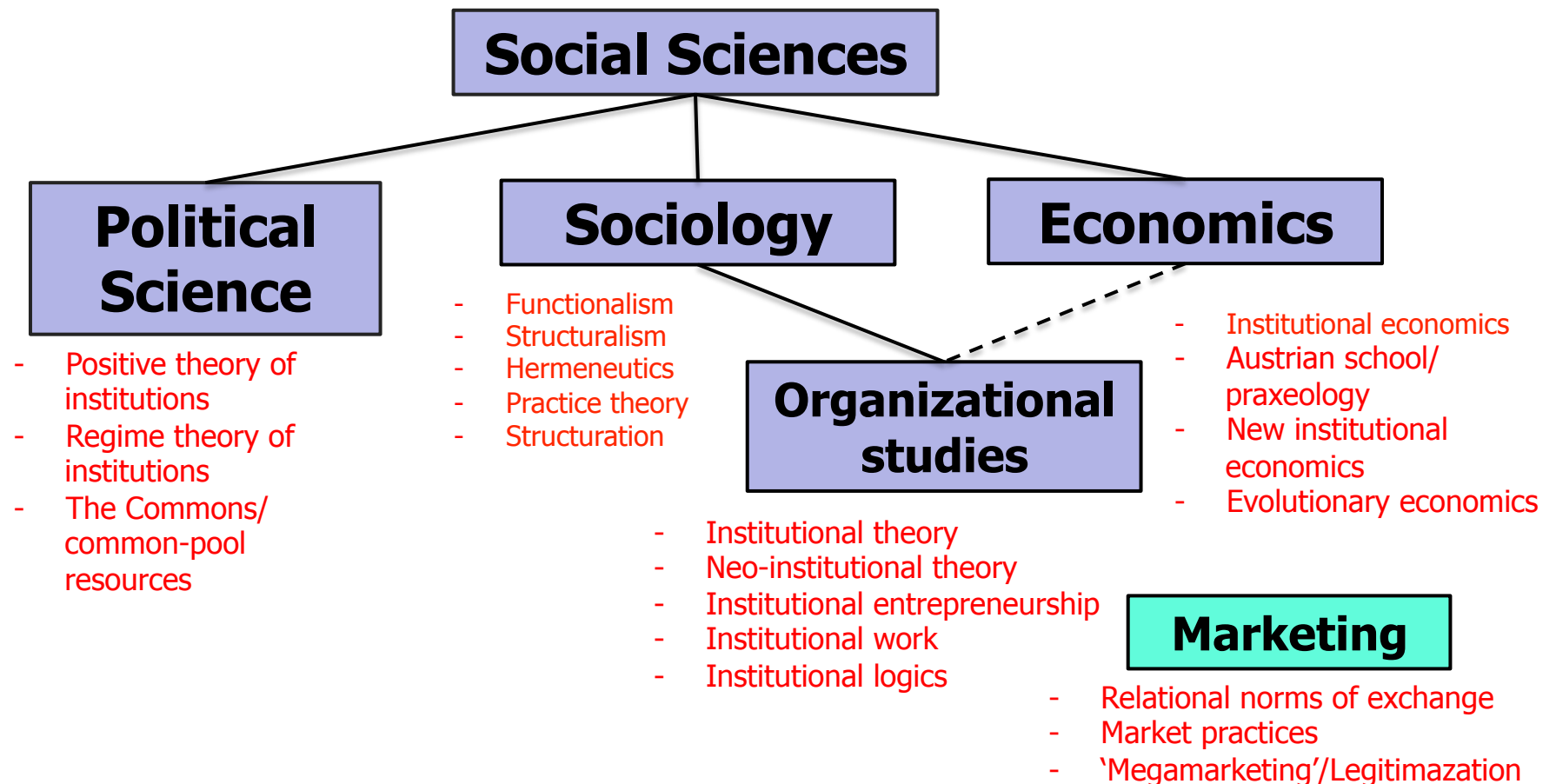
- The **world we live in** is much more a man-made, or **artificial** one, than it is a natural one
 - The significant part consists **mostly of artifacts**, called **symbols** (p. 2)
- 'Judgment' is a **heuristic search**
 - The real-world economic actor is a **satisficer**, who accepts good enough, because (optimization) is not a choice.(p. 29)
- **Markets and organizations** are **social schemes** that facilitate coordinated behavior, **conserving** the critical **scarce** resource of **human ability** to handle complexity (p. 49)

Formal Institutional Theory Across Disciplines



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- "Greater divisions exist within than between disciplinary camps." (Scott 2000, p. 2)



Institutions as the Building Blocks of Social Science



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- “The discovery of the **inescapable evidence** of the **interdependence of market phenomena** overthrew [the] opinion that there was in the course of **social events no regularity and invariance** of phenomena [as found in] “**natural phenomena**”... (von Mises, 1949 p. 2).
- “One must study the **laws of human action** and **social cooperation** as the physicist studies the **laws of nature**” (von Mises, 1949 p. 3).
- Can we **dig below** the immense **diversity of regularized social interactions** in markets, hierarchies, families, sports, legislatures, elections, and other situations to **identify universal building blocks** used in crafting all such structured situations?
Yes. (Ostrom 2005)
- The **diversity** of regularized social behavior that we observe at multiple scales is **constructed from universal component** organized in many layers. (Ostrom 2005)
- **Institutions** are both the “**recursive organizers**” of practices and the “**practices** with the greatest time-space extension.” (Giddens 1984, p. 17)



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REFRAMING INNOVATION AS INSTITUTIONALIZATION

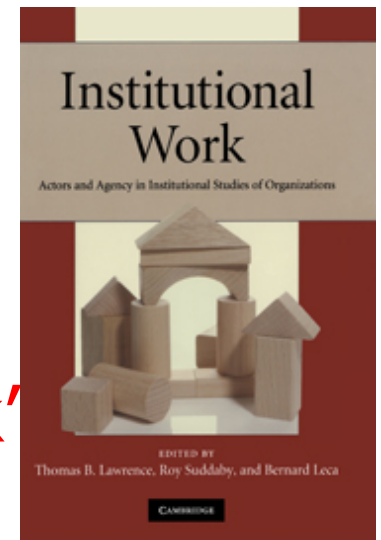


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Innovation: The S-D Logic Perspective

Continual **creation of new markets** by:

- **Leveraging** existing institutions/service ecosystems
- Dynamically **reconfiguring** service ecosystems
- **Creating** new ecosystems
- In short: doing “**institutional work**”





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Institutional Work

Interplay of Actors, Agency, & Institutions

Development

- **Isomorphism** – institutional dominance
- **Agency** – Individual intention
 - Especially specialized: “**intuitional entrepreneurs**”
- **Structuration**: Duality of agency and structure

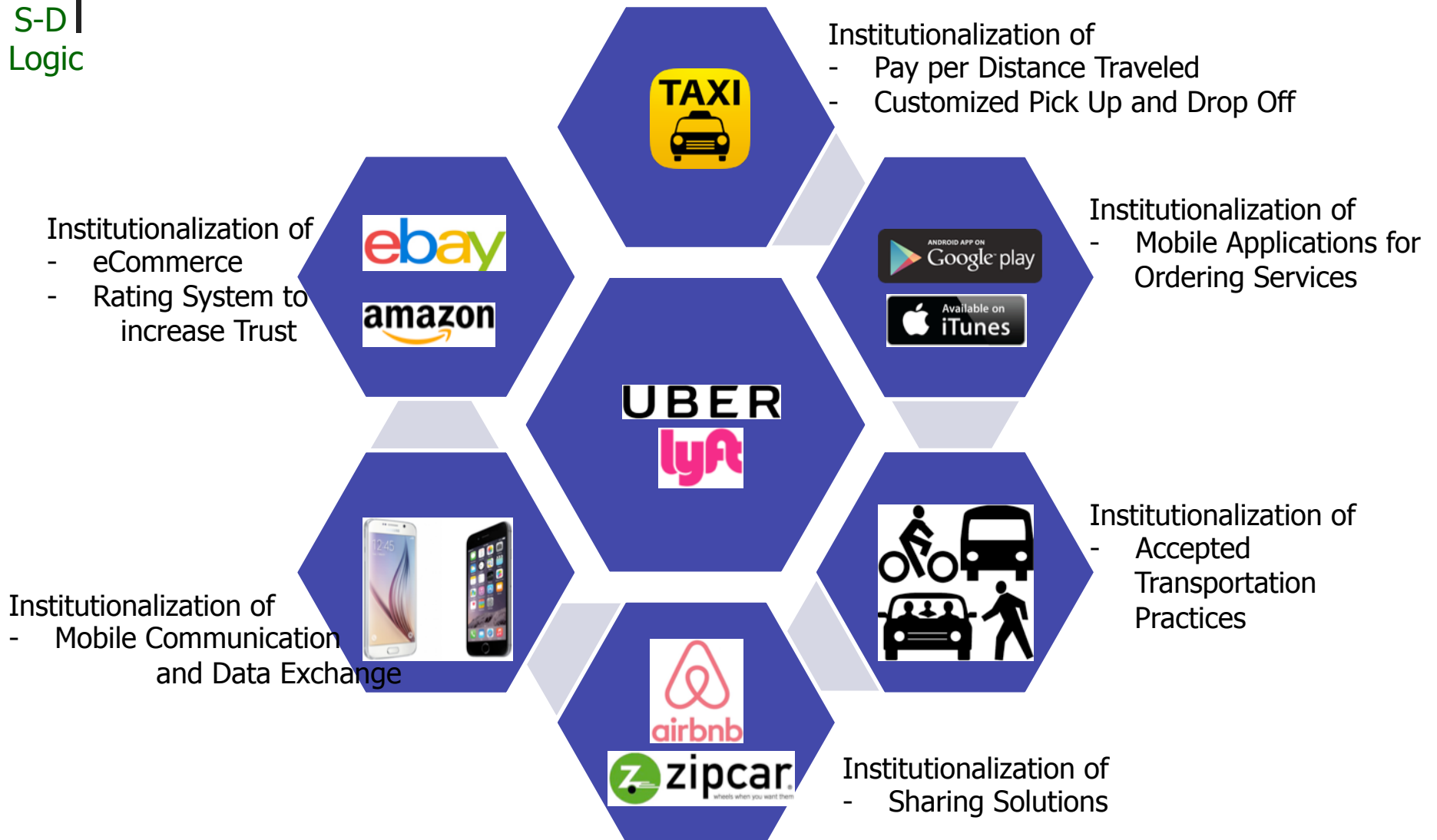
Institutional work = intentional form of structuration

- **Maintenance** of institutions
- **Disruption** of institutions
- **Creation** of institutions



Complimentary Institutionalizations and Upstream Adoptions Processes for UBER and Lyft

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Select Institutional Work by Uber/Lyft: Maintenance, Disruption and Change



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Institutions maintained:

- Pay for Distance Traveled
- Customized Pick Up and Drop Off
- Use of traditional Cars
- Etc.



UBER
lyft

Institutions disrupted :

- Professional Drivers
- Cash Payments
- Flagging Down
- Regulated Industry
- Etc.

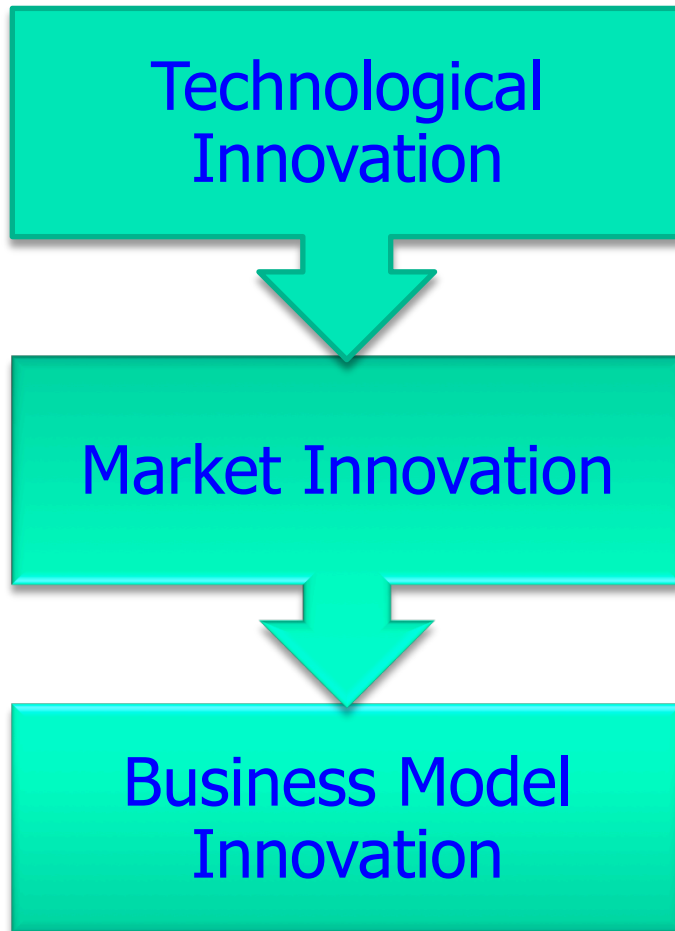
Institutions changed :

- Rating System of Driver and Passenger
- Payment in Cloud
- Etc.

Reconciling Innovation Through Institutionalization



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Innovation through institutionalization: A service ecosystems perspective[☆]

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ABSTRACT

This article explores the role of institutions in innovation from a service-ecosystems perspective, which helps to unify diverging views on innovation and extend the research regarding innovation systems. Drawing on institutional theories, this approach broadens the scope of innovation beyond firm-centered production activities and collaboration networks, and emphasizes the social practices and processes that drive value creation and, more specifically, *innovation* – the combinatorial evolution of new, useful knowledge. Based on this ecosystems view, we argue for *institutionalization* – the maintenance, disruption and change of institutions – as a central process of innovation for both technology and markets. In this view, *technology* is conceptualized as potentially useful knowledge, or a value proposition, which is both an outcome and a medium of value co-creation and innovation. *Market innovation*, then, is driven by the combinatorial evolution of value propositions and the emergence and institutionalization of new solutions.

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1. Introduction

The ongoing study of innovation is driven by a need to develop more compelling value propositions (Lusch & Vargo, 2006) in an increasingly interconnected and dynamic world. However, the diversity of disciplines within which innovation is studied, and the fragmented nature of this body of literature (Hauser, Tellis, & Griffin, 2006), make it difficult to understand the central processes by which innovation occurs and, more specifically, how new markets form (Bower & Christensen, 1995; Kim & Mauborgne, 2005). Furthermore, the study of innovation in general has been developed from a view of value creation that separates firms as producers (e.g., innovators) and customers as consumers (e.g., adopters) of market offerings (Vargo & Lusch, 2011). This conventional view has limited the understanding of how multiple participants (e.g., firms, customers and other stakeholders) contribute to value creation, as well as innovation.

Recent research regarding networked (e.g., Corsaro, Cantu, & Tunisini, 2012) and systemic (e.g., Geels, 2004; Sundbo & Gallouj, 2000) views on innovation, provide a more dynamic view of market interactions, which has helped to bring together different components of innovation (e.g., product development and customer adoption) and broaden the scope of innovation from a focus on technology to an emphasis on market relationships (Coombs & Miles, 2000). In particular, the study of innovation has begun to extend beyond firm-centric development activities and provides evidence of multiple participants in innovation (Corsaro et al., 2012; Dhanaarag & Parkhe, 2006). This expanded view has drawn attention toward the interrelated processes and interconnected relationships through which innovation occurs.

While much of this literature remains “production”-centric, and maintains a distinction between those who “develop” and those who “adopt” innovations, the realization that users have the capacity to drive innovative efforts (Oudshoorn & Pinch, 2003; von Hippel, 2007) points to a more interactive and systemic view of innovation. This movement toward a more dynamic approach raises issues with innovation models that center on unidirectional processes, such as the linear model of innovation,³ and emphasize firms as innovators and customers as adopters. It underscores the need for a more unified and comprehensive framework that can provide a deeper understanding of the various participants and underlying processes from which new technologies and, ultimately, markets emerge.

In this paper, we propose an ecosystems approach for considering different “types” of innovation (i.e., technological and market innovation) as driven by a common process – i.e., *institutionalization* (e.g., Barley & Tolbert, 1997). In particular, we apply service-dominant logic (Vargo & Lusch, 2004, 2008), and its institutional, service ecosystems

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³ The term linear model is used in a variety of ways that seem to converge in the notion that “innovation starts with basic research, then adds applied research and development, and ends with production and diffusion” (Godin, 2006, p. 639).

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TECHNOLOGICAL INNOVATION: AN INSTITUTIONAL STORY



The Meaning of Technology

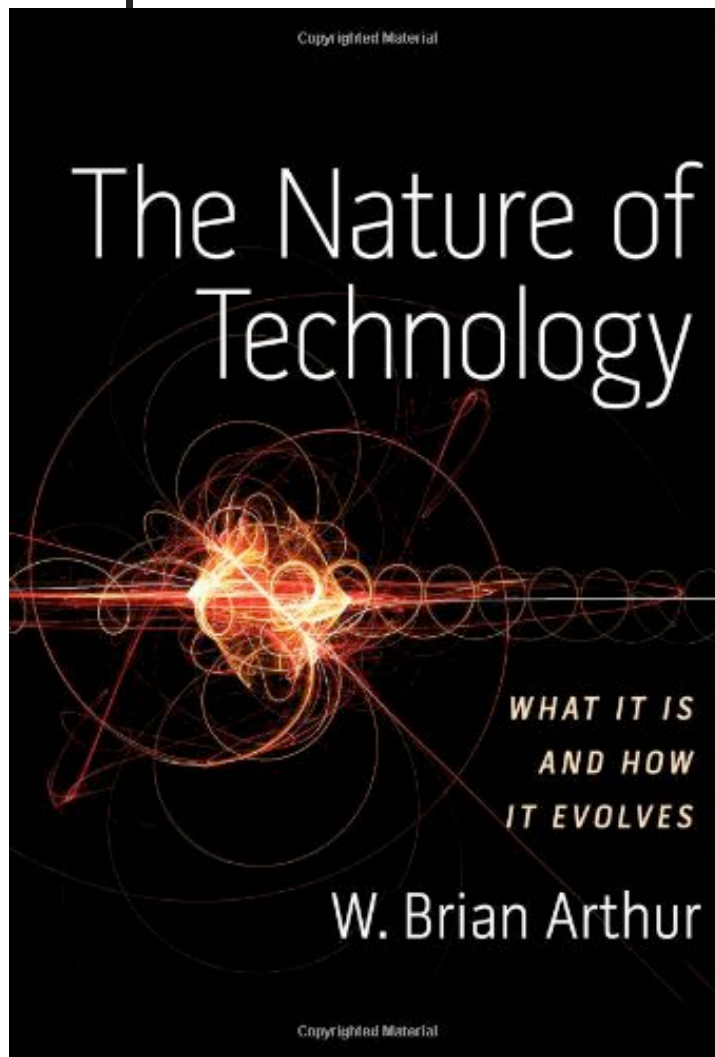
■ Definitions

- A means to **fulfill a human purpose**
 - Arthur (2009)
- **Useful knowledge**
 - Mokyr (2002)
- The **application of scientific knowledge** for practical purposes
 - Oxford New American Dictionary

■ And relationship to **service**

- **Use of competences** (knowledge and skills) for another's benefit
- Service = **applied, beneficial technology** (operant resources)

Arthur on New Technologies: Resource Integration



Combinatorial Evolution

“A novel technology emerges always from accumulation of previous components and functionalities already in place.” (p. 124)

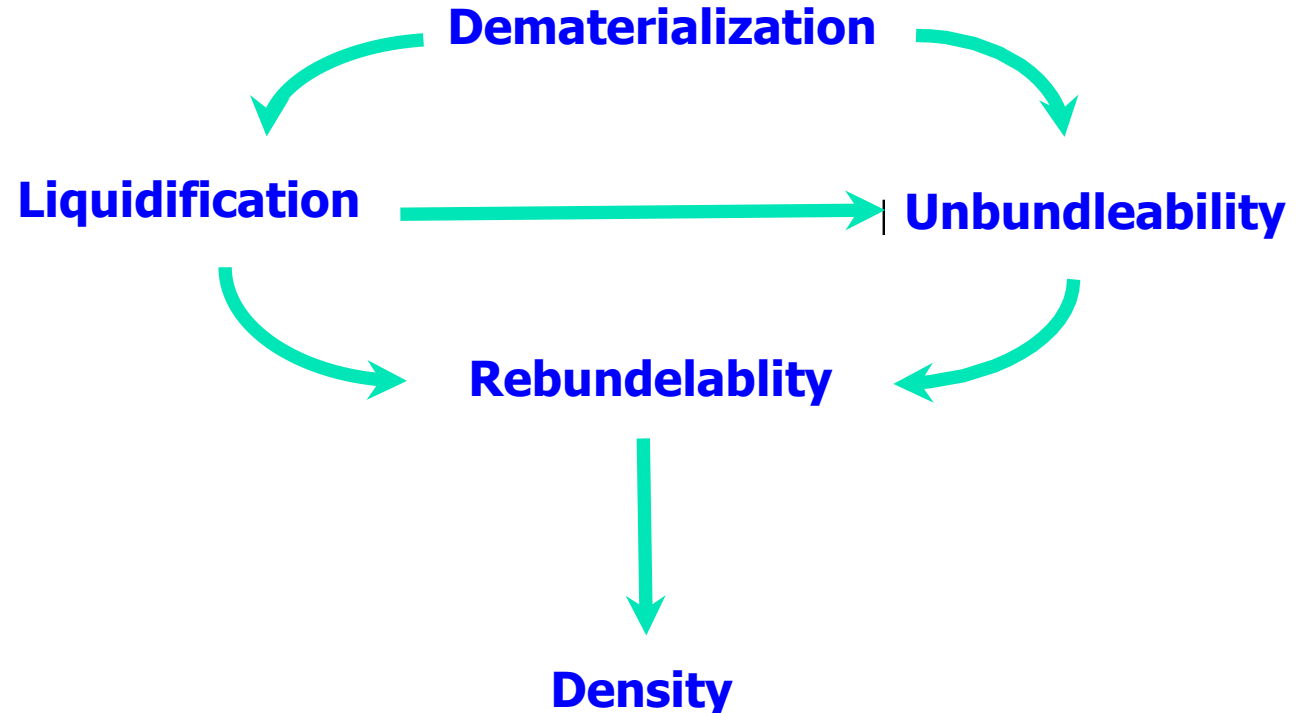
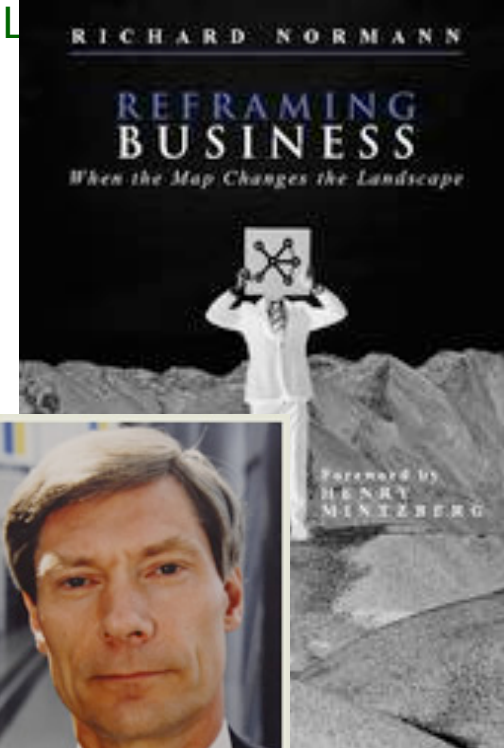


More generally, the combinatorial evolution of institutions



What has Changed: Liquification

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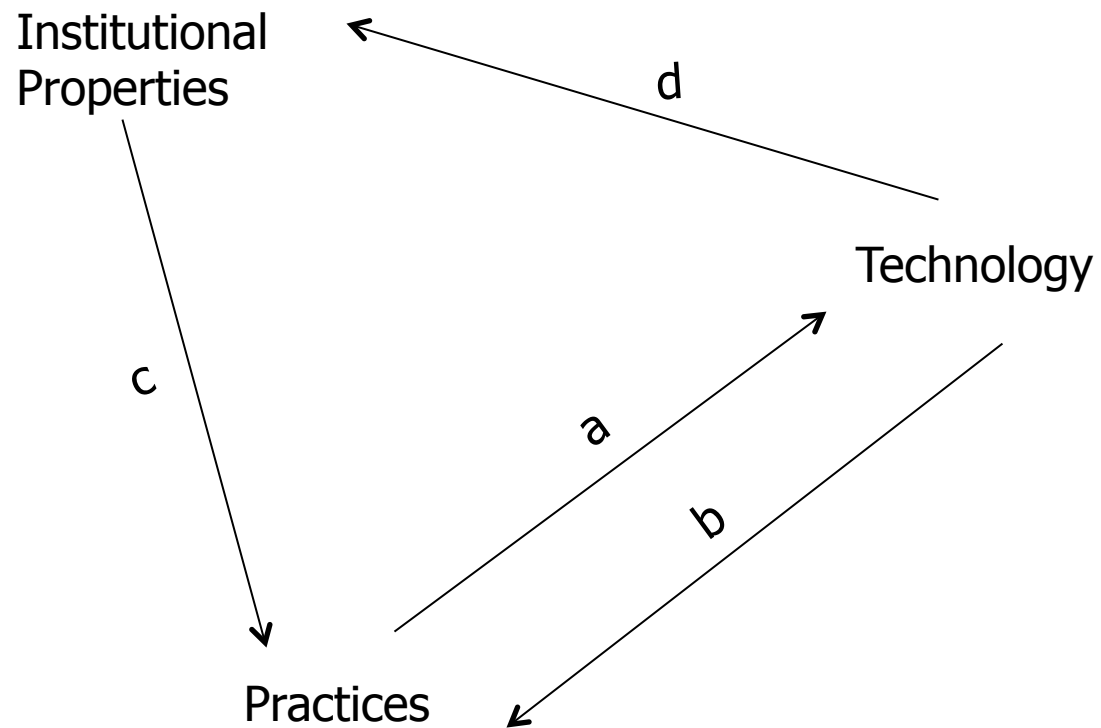


The Key = Liquification, through a revolution in IT and ICT.
Allows new technologies through resouce integration and institionalization



A Structural Theory of Technology

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- a) Technology as a product of human influence
- b) Technology as a medium of human action
- c) Institutional Conditions of Interaction with IT
- d) Institutional Consequences of Interaction with IT

Adapted from Orlikowski 1992, p. 441



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Duality of Technology

Technology as an Operand Resource

- Technology as a **product of human action**
- The **outcome of design, development, appropriation and modification** (function of both "design" and "use")

Technology as an Operant Resource

- Technology as a **medium of human action**
- **Institutions** (norms, meanings, understandings) associated with technology **enable it to influence action**
- The **introduction/acceptance** often requires **changes in daily practices**
 - can result in **changes in institutional and institutional arrangements**

Adapted from Orlikowski 1992, p. 441



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MARKET INNOVATION: AN INSTITUTIONAL STORY



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Where was the Market...?

“Why
would
anyone
want...”

A horseless carriage (Model T)

Talking movies

A Television

A Personal computer

A Microwave oven

The Internet

An iPod

Implications for Understanding the Market



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- There are no (a priori) **markets**
 - There are just micro-level, service exchanges
 - gifts, generalized reciprocity, service-for-service
- There is **a market system**:
 - transitory, **contextual configurations of resources and exchanges**, sometimes linked by **institutions**
- ...and hence markets **can "exist"**
 - They can:
 - Be **envisioned** --images of service potential
 - become **institutionalized** -- Intersubjective realities
 - Thus, **markets** become **performed** within the **Market**
 - They exist because we act like they do
 - "Markets are functions of marketing" (and other business practices)

A Market as an Institutionalized Solution



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De-institutionalization
Re-institutionalization



Quasi-predictability



Some implications of S-D Logic for Innovation/ and Design



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- Invention of things is a special case
 - More generally, **we design institutions**
 - **Common solutions, markets**
 - **Meanings, symbols – facilitators of cooperation**
- Innovation is a **resource-integration** function
 - New innovation comes from **recombinations**
- Innovation is not just a specialized function
 - **Everyone is a innovator/designer**
- The **chief innovator** is the value **beneficiary** (e.g., the customer)
 - Thus, **innovating for innovators**



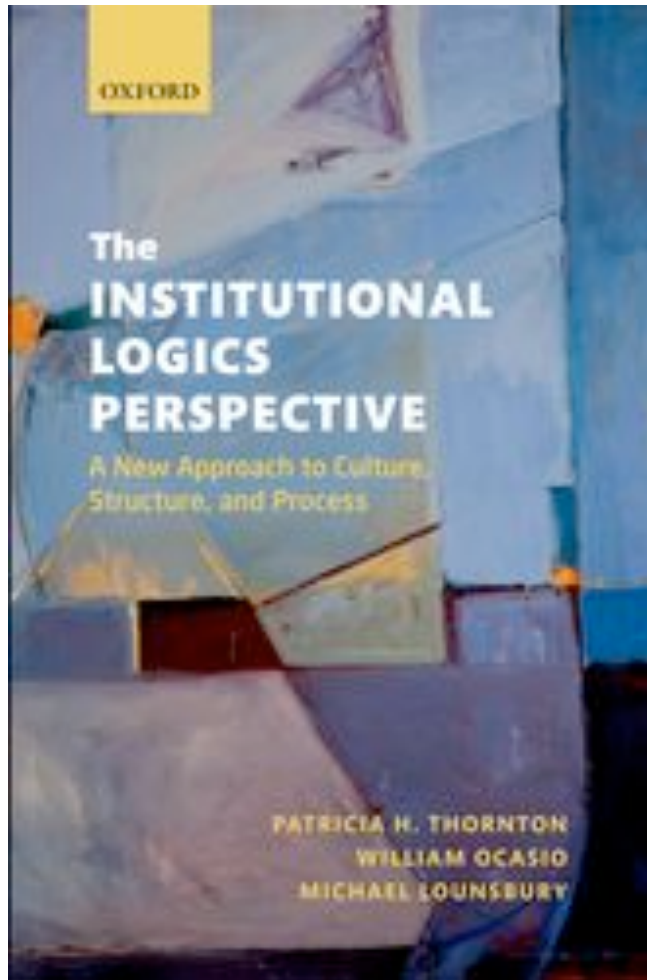
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BUSINESS MODEL INNOVATION: AN INSTITUTIONAL STORY



Institutional Logics

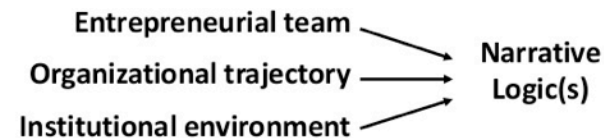
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Reframing Organizational Institutionalization

“socially constructed, historical patterns of cultural symbols and material practices, including assumptions, values, and beliefs, by which individuals and organizations provide meaning to their daily activity, organize time and space, and reproduce their lives and experiences”

Working model



Common Themes in Business Model Thinking

(Zott, Amitt, and Massa 2011)



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Emerging as a **new unit of analysis**

Emphasize a **systems-level, holistic approach**

Firm activities play important role

Seek to explain **how value is created (i.e., cocreated)**

Defining and Exploring Business Models



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CONCEPTUAL/THEORETICAL PAPER

Business models as service strategy

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Abstract It is widely recognized that business models can serve as important strategic tools in innovation and market formation processes. Consequently, business models should have a prominent position in the marketing literature. However, marketing scholars have, so far, paid little attention to the business model concept, perhaps because it lacks an established definition and clear theoretical foundation. This article offers a definition for the business model concept that, using a fractal approach, connects business models to technological and market innovation. Furthermore, the article questions several cornerstone strategic concepts by reconceptualizing business model development from a firm-centric activity that promotes owning key resources and altering sets of decision variables to one that highlights the facilitation of broad institutional change processes. As such, it takes the potentially controversial position of advocating a service-strategy-based understanding of business models for all of marketing strategy.

Keywords Business models · Institutions · Ecosystems · Service-dominant logic · Value Cocreation

Introduction

Despite increased scholarly attention and consensus regarding the importance of business models, the literature has yet to arrive at a clear conceptualization of what business models are (Chesbrough and Rosenbloom 2002; Zott et al. 2011) and, perhaps more importantly, what business models do (Doganova and Eyquem-Renault 2009). Somewhat surprisingly, marketing researchers, with some notable exceptions, have not participated in developing the theoretical foundation needed to advance an understanding of business models. We believe that this participation is important though, since, as we show, understanding business models has important implications for marketing strategy.

Our emphasis on service strategy is partially motivated by the appearance of a *service revolution*. Clearly, there is a re-orientation toward service in individual companies, economies, and research; however, there are two ways of understanding this reorientation. The first is based on a traditional perspective, which categorizes “services” by contradistinction to goods—i.e., “what goods are not” (Vargo and Lusch 2004b). Most classifications of economic activity reflect this divide, in which processes directly involved in the production of goods (e.g., manufacturing) are seen as primary, and all other processes are categorized as service(s). From this perspective, the marketing strategy for services is usually based on adjusting a marketing strategy for goods. That is, such service marketing strategies are often grounded on some variation of the IHIP characteristics (intangibility, heterogeneity, inseparability of production and consumption, and perishability; Zeithaml et al. 1985)—generally, problems

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“Dynamic **assemblages of institutions** that, through the performative practices 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.”

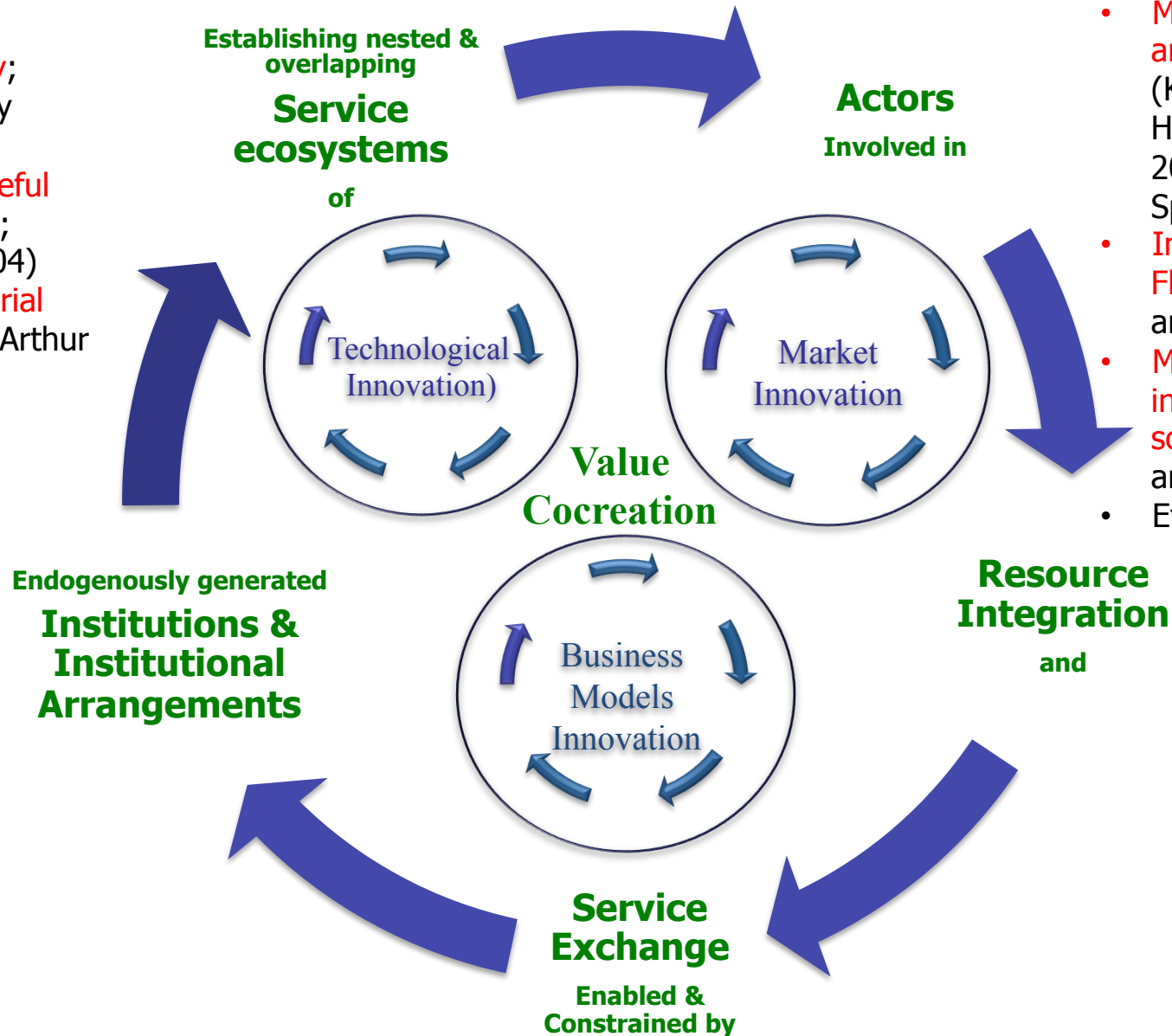
All actors have **business modes**

Technology, Market Innovation & Business Models: A Partial Reconciliation

| Technology | Market Innovation | Business Models | S-D Logic |
|---|--|---|----------------------------------|
| Tech as useful knowledge; (Mokyer 2002) | Market practices and performativity (Kjellberg and Helgesson 2006; 2007; Araujo and Spring 2006) | seek to explain how value is created (not just how captured (Zott et al. 2011) | Service Exchange |
| Duality of Technology; (Orlikowsky 1992) Social Construction of technology (Pinch & Bijker 1984) | Markets as institutionalized solutions (Vargo and Lusch 2014) | The "institutional logic" of the firm (e.g., Thornton et al. 2012) | Institutionalization |
| Combinatorial Evolution (Arthur 2011) | Interpretive Flexibility; (Pinch and Bijker 1984) | Business model innovation (Chesbrough 2007) Emphasize a system-level, holistic approach (Zott et al. 2011) | Resource Integration/ ecosystems |
| Enables increased density within value constellations (Normann, 2001) | Facilitation of exchange through "institutional arrangements" (Loasby, 2000) | Cocreation through firm and partner(s) activities (Zott et al. 2011) | Value cocreation |

A Fractal Model of Value Creation

- Duality of Technology; (Orlikowsky 1992)
- Tech as useful knowledge; (Mokyer 204)
- Combinatorial Evolution (Arthur 2011)
- Etc.



- Market practices and performativity (Kjellberg and Helgesson 2006; 2007; Araujo and Spring 2006)
- Interpretive Flexibility; (Pinch and Bijker 1984)
- Markets as institutionalized solutions (Vargo and Lusch 2014)
- Etc.



The S-D logic Landscape

Levels

Theory/ Abstraction

Meta-theoretical
(e.g., S-D logic, cocreation of value)

Midrange theoretical
(e.g., engagement, coproduction)

Micro-theoretical
(e.g., law of exchange, decision making)

Aggregation

Macro Level
(e.g., societal, community -- national, global, local)

Meso Level
(e.g., “industry”/market, cartel)

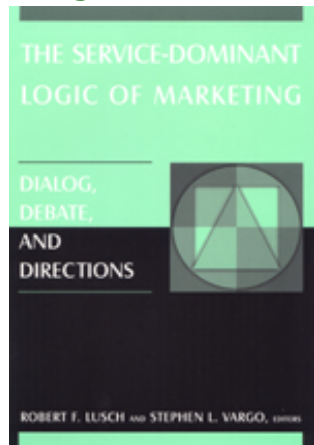
Micro Level
(e.g., transactions, sharing.)

Primary Focus to Date

Increasing Attention, Looking Forward



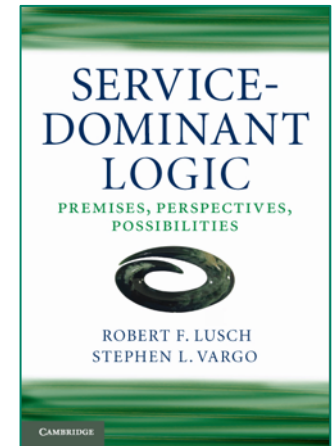
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Thank You!

For More Information on S-D Logic visit:

sdlogic.net



We encourage your comments and input. Will also post:

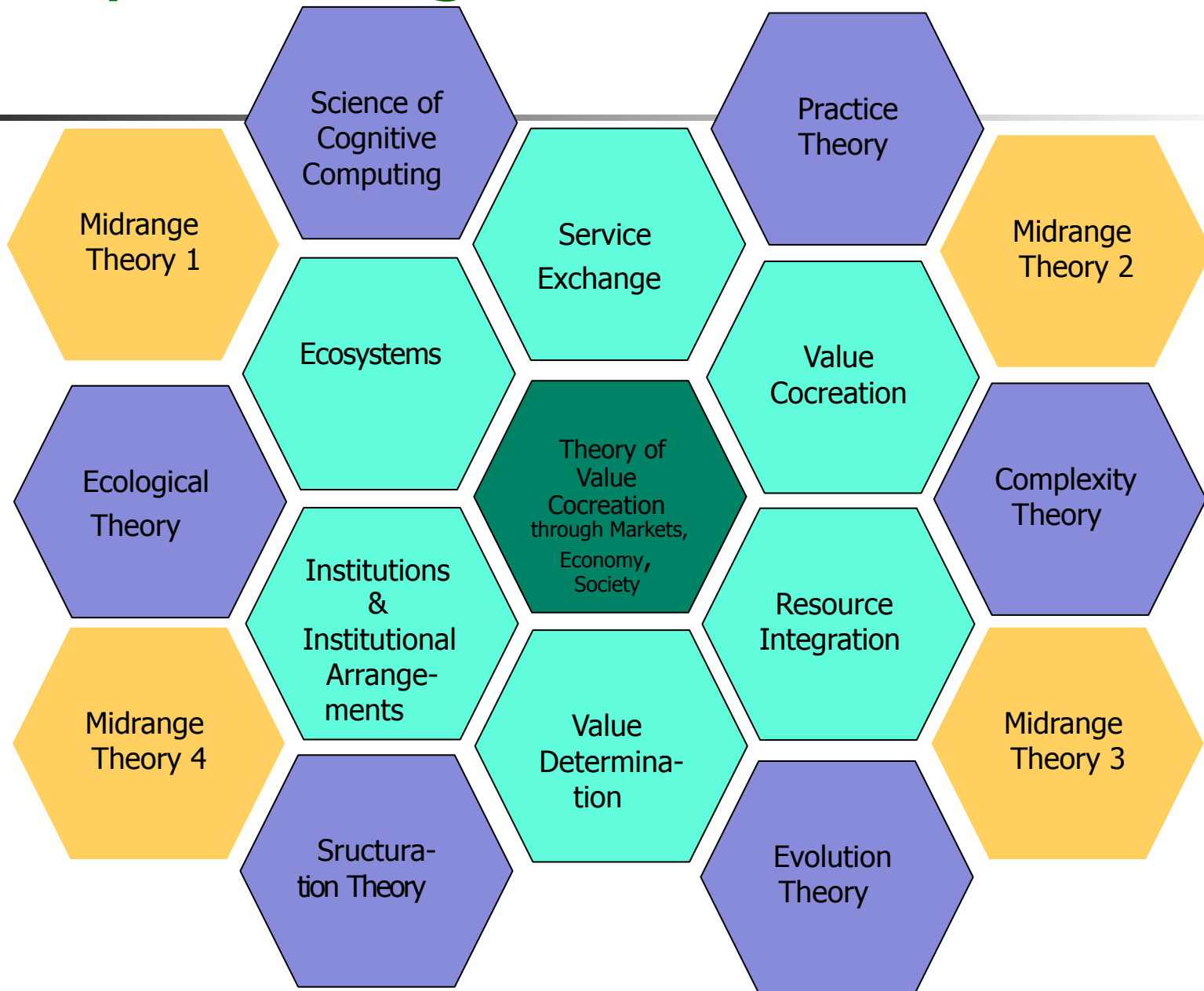
- Working papers
- Teaching material
- Related Links

Steve Vargo: svargo@sdlogic.net Bob Lusch: rlusch@sdlogic.net

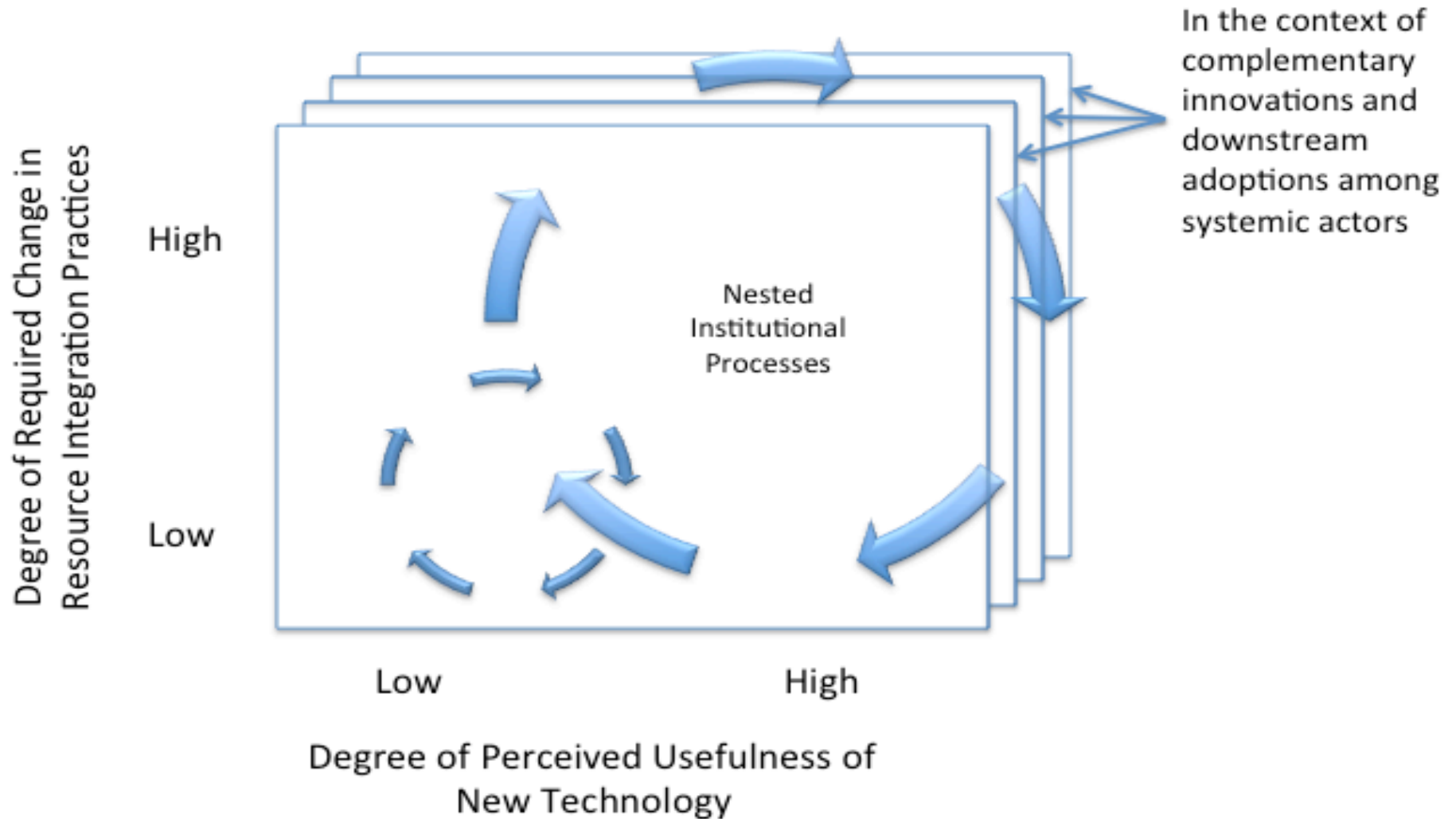
Broadly Drawing from...



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Logic



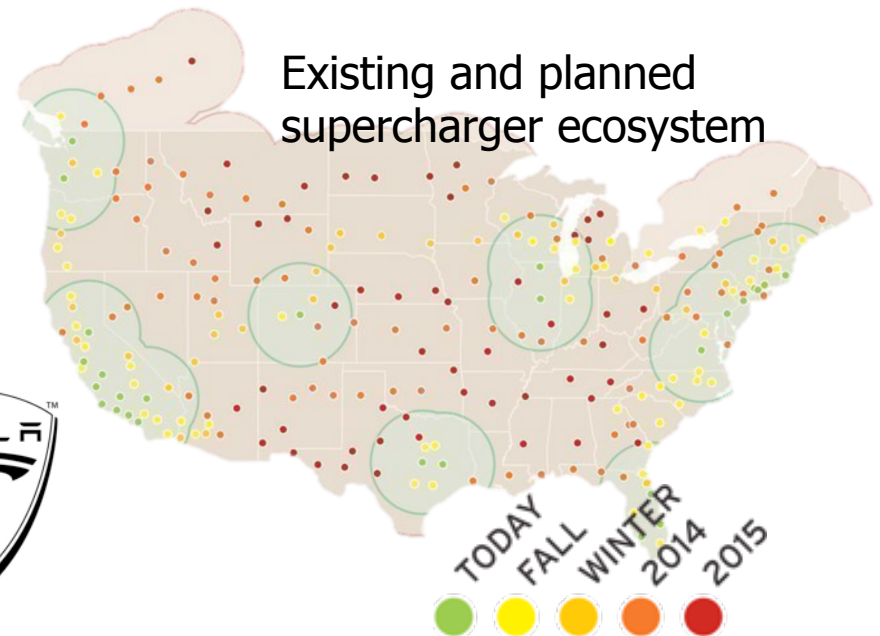
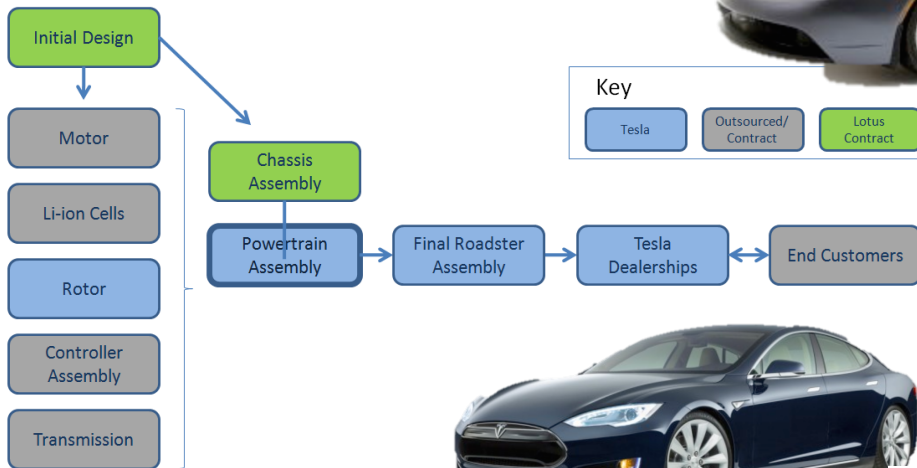
Systemic and Institutional View of Business Models



Tesla Institutional/Ecosystem Innovations

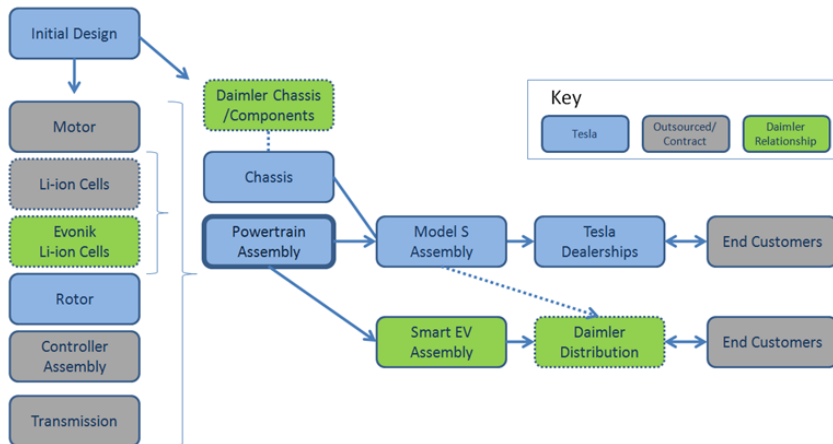


Roadster Ecosystem



Existing and planned supercharger ecosystem

Model S/Powertrain Ecosystem



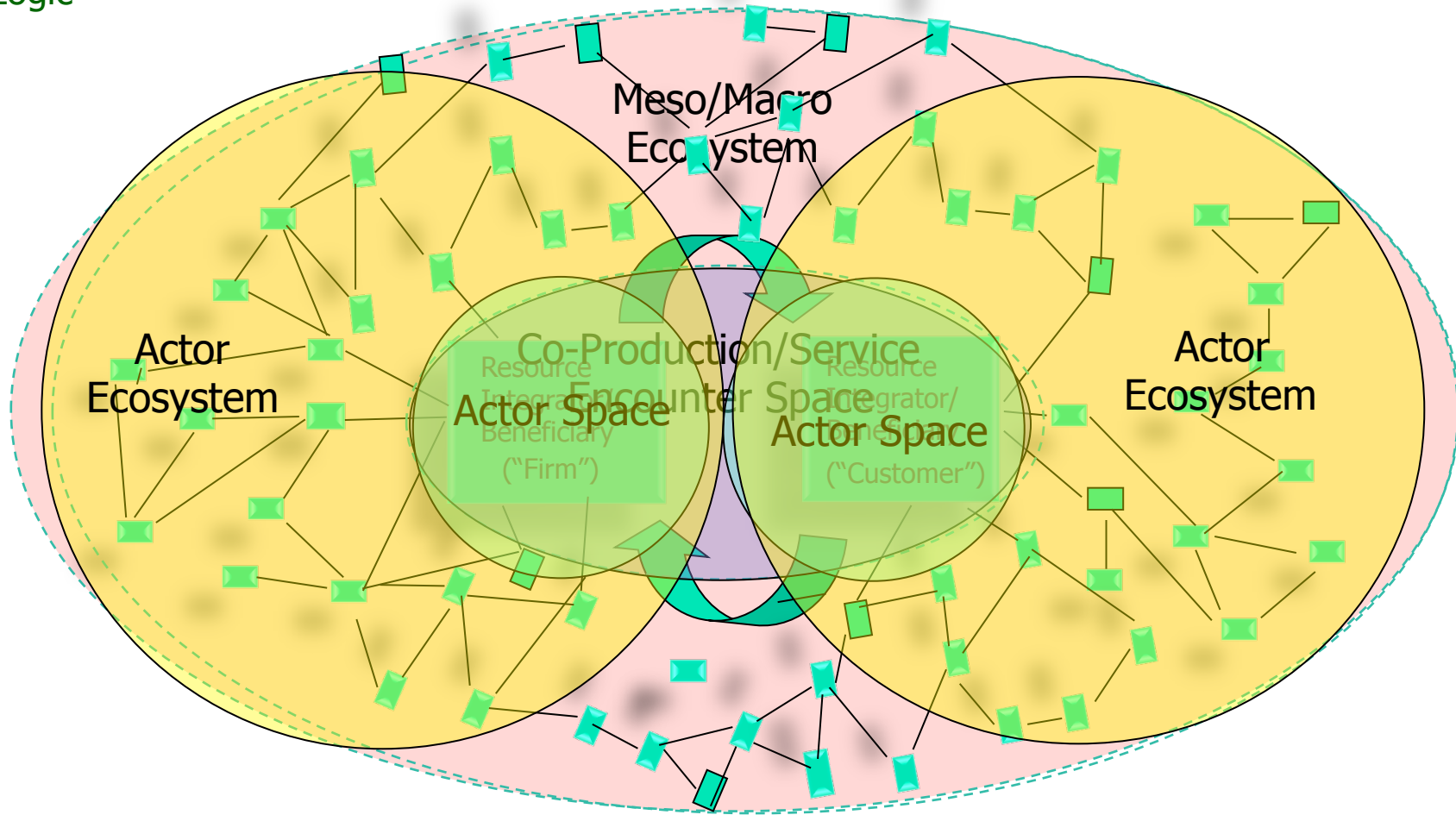
Other institutional Design Elements

- Laws (e.g., non-dealer sales)
- Habits (e.g., "fueling": more often, while parking)
- Regulations (e.g., preferred parking spots)
- Business model: Open patents to cocreation



S-D
Logic

Some Venues for Innovation

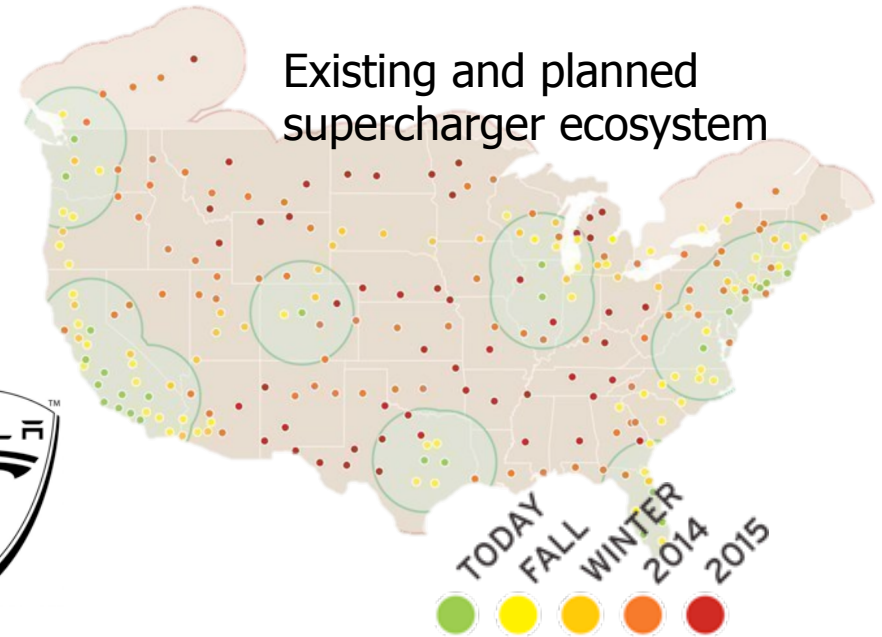
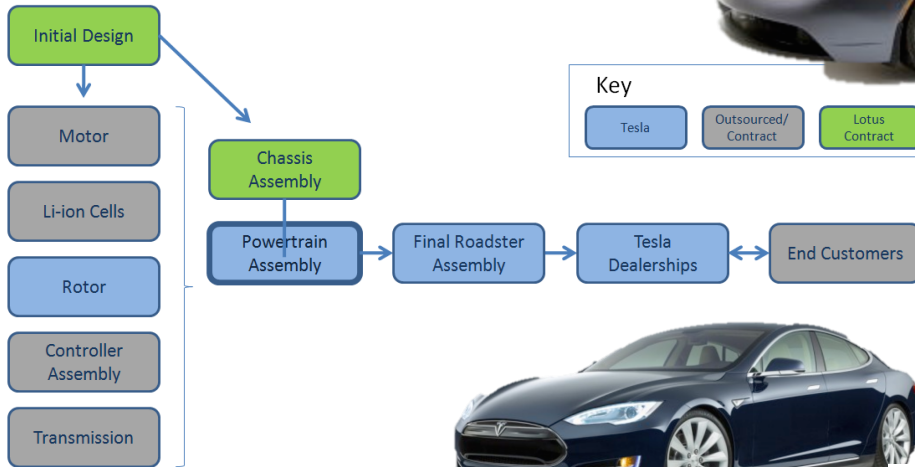


Resource Integrators

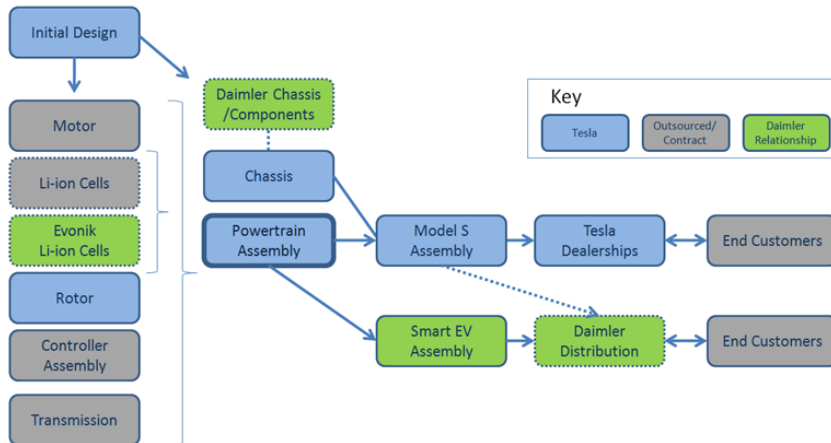
The Tesla Ecosystem Innovations



Roadster Ecosystem



Model S/Powertrain Ecosystem



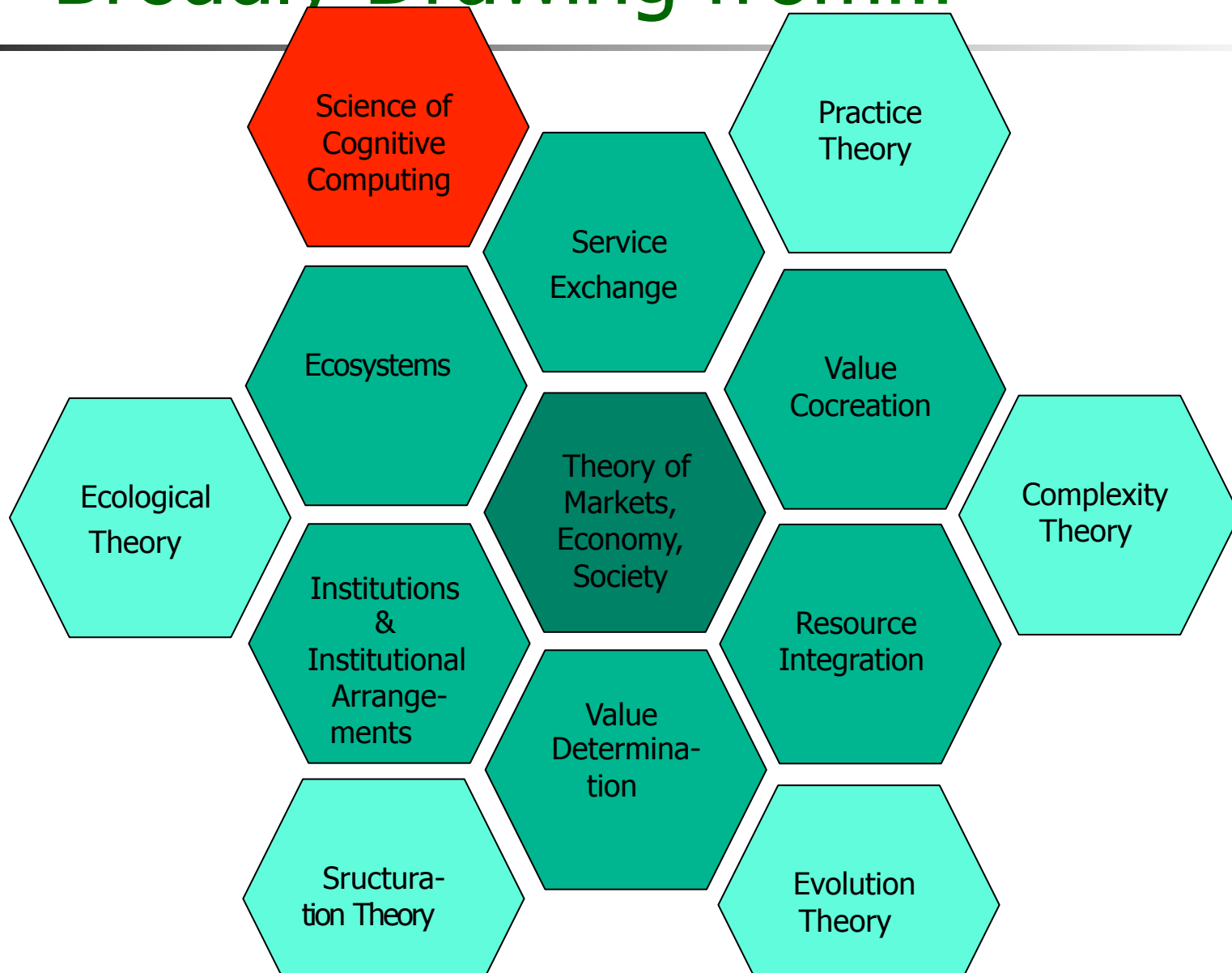
Other institutional Design Elements

- Laws (e.g., non-dealer sales)
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- Regulations (e.g., preferred parking spots)
- Business model: Open patents to cocreation



S-D
Logic

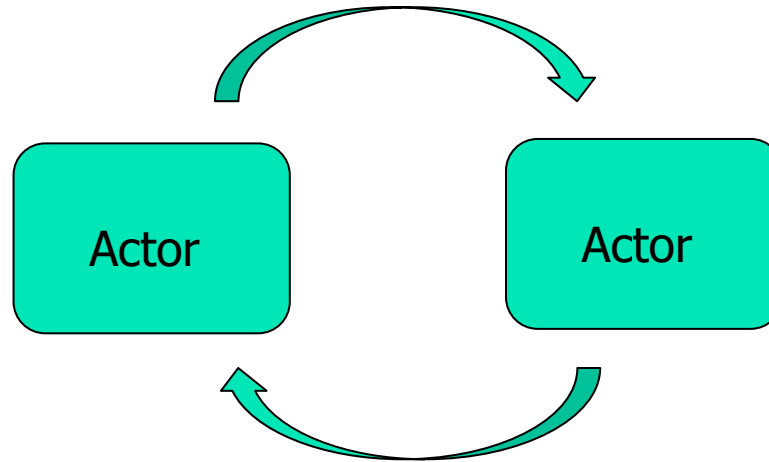
Broadly Drawing from...





S-D
Logic

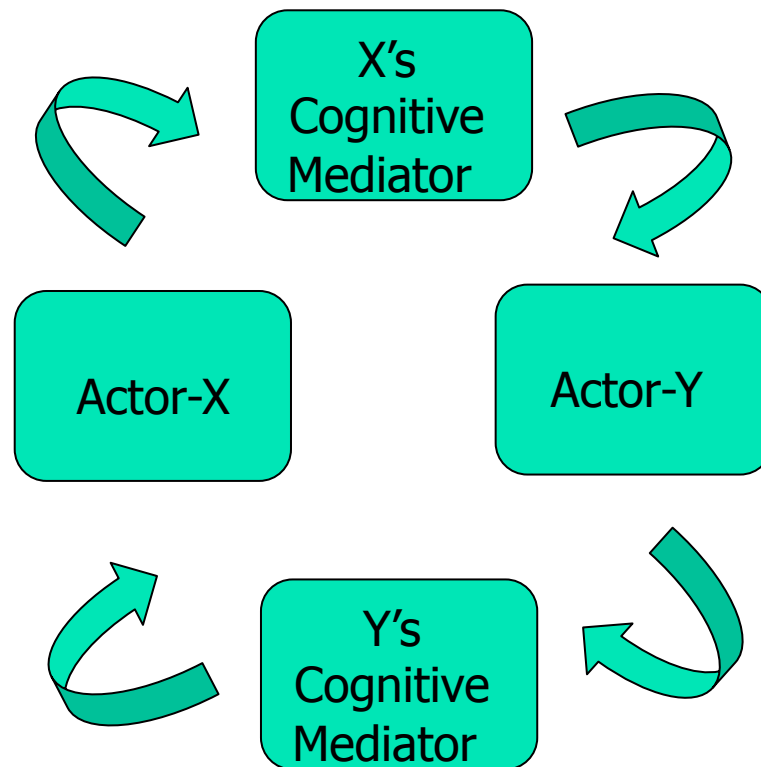
A2A Service Exchange





S-D
Logic

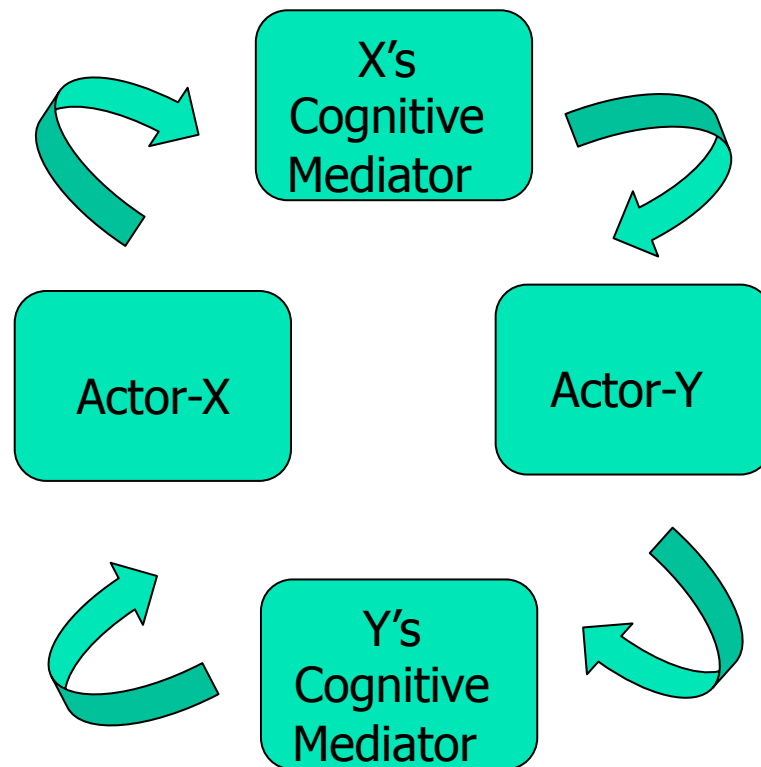
Cognitive Mediators-Assistants





S-D
Logic

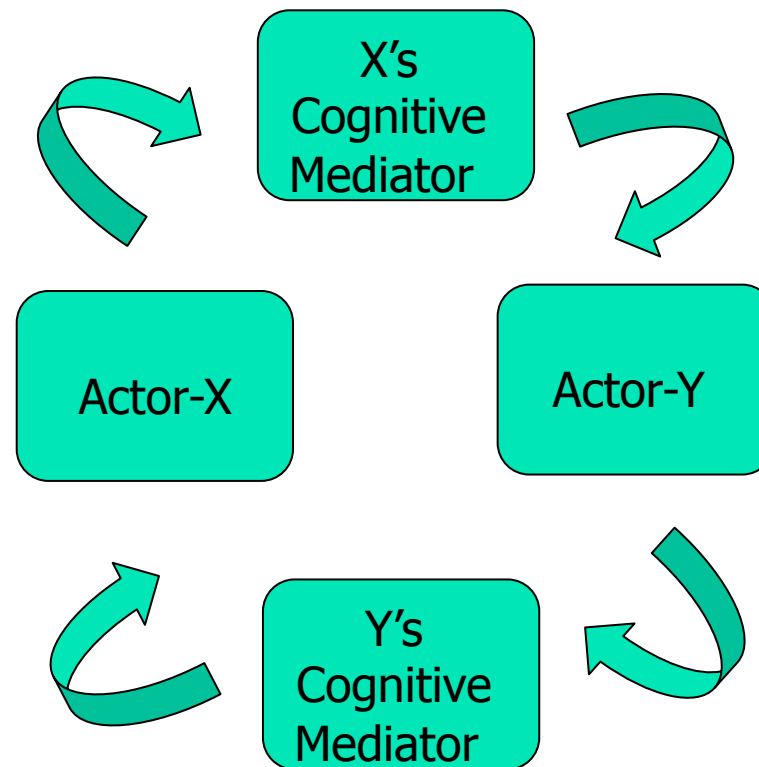
Cognitive Mediators-Assistants



Leading to More Smart Service Systems



S-D
Logic



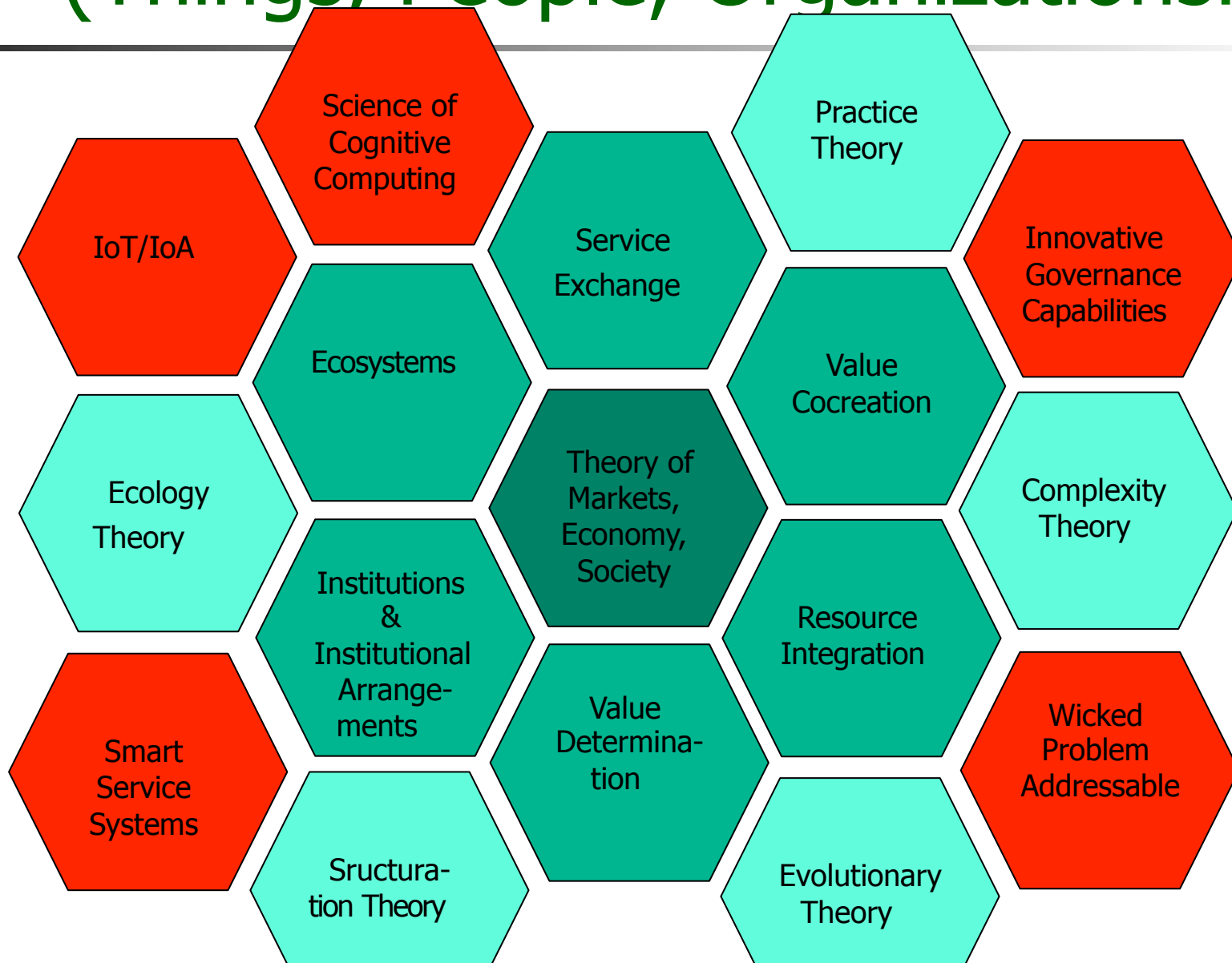
Actors can be things or humans and each can interact and exchange via a cognitive mediator. Need to recognize also that a cognitive mediator is an actor.

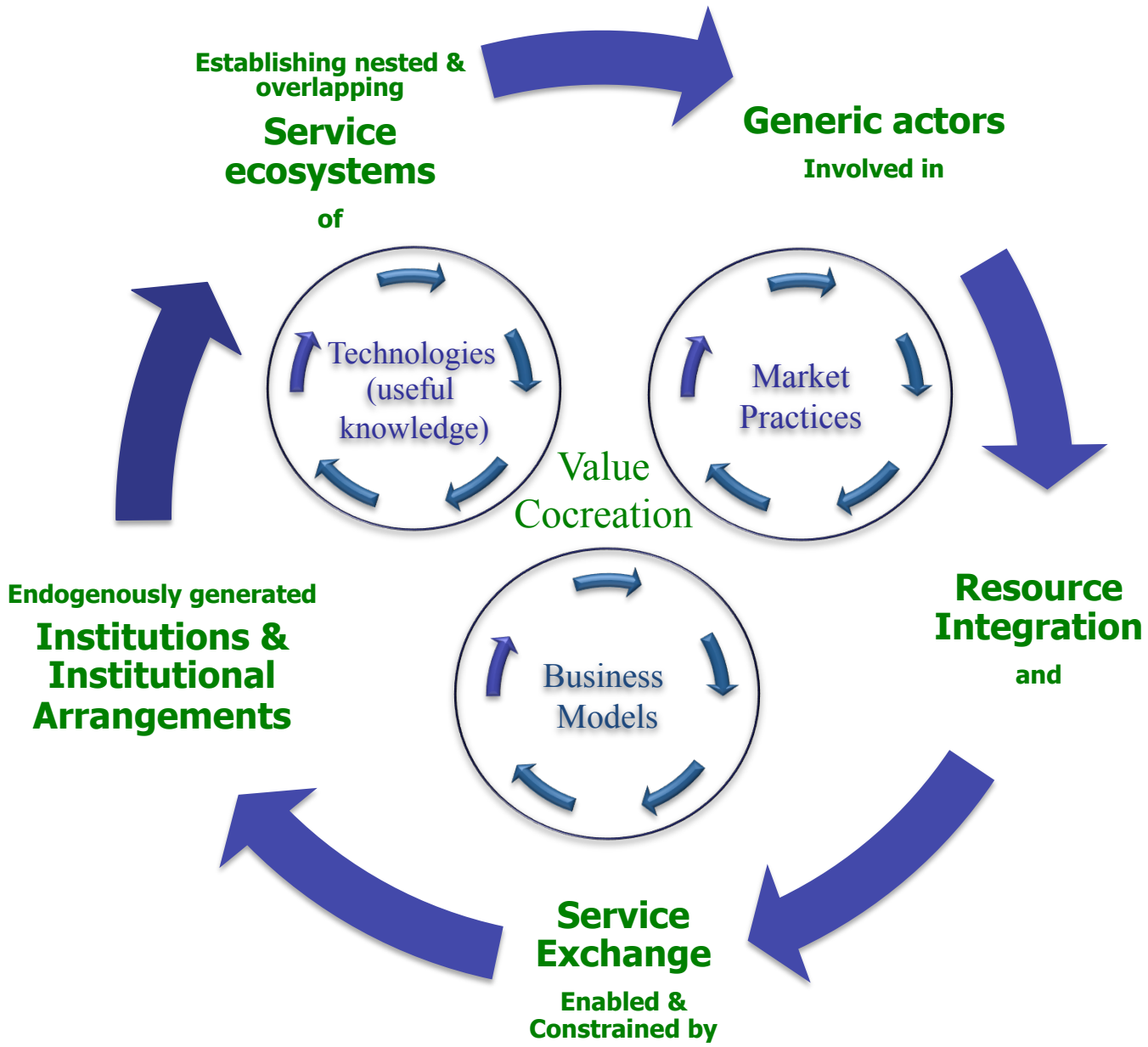
**...LEADING TO MASSIVE
GROWTH IN SMART
SERVICE SYSTEMS**

Including the Internet of Actors (Things, People, Organizations...)

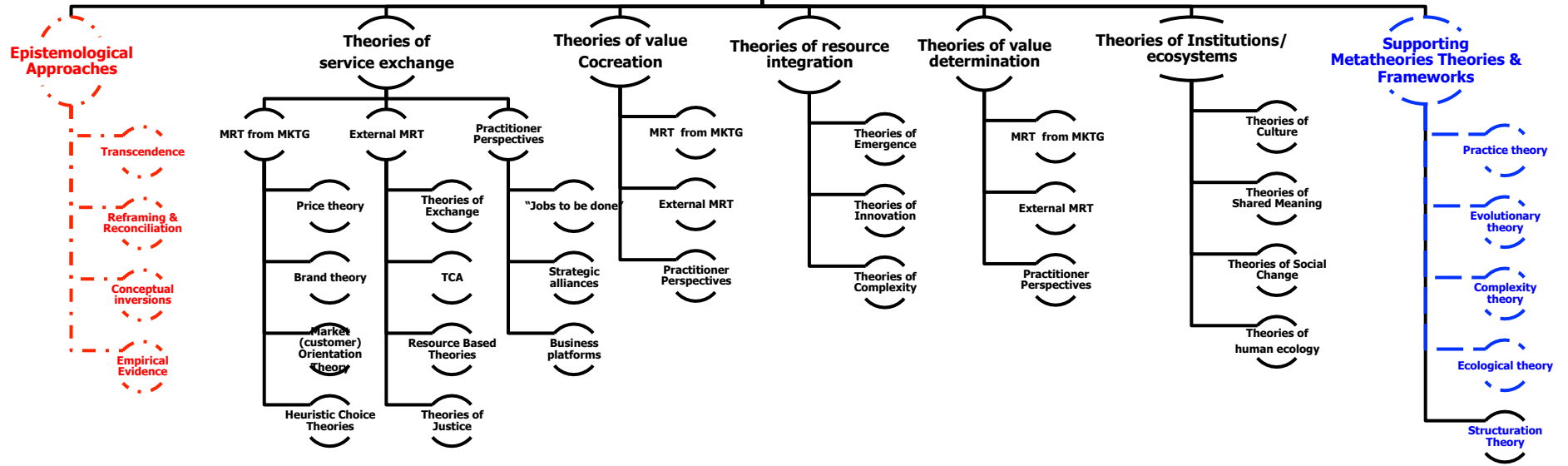


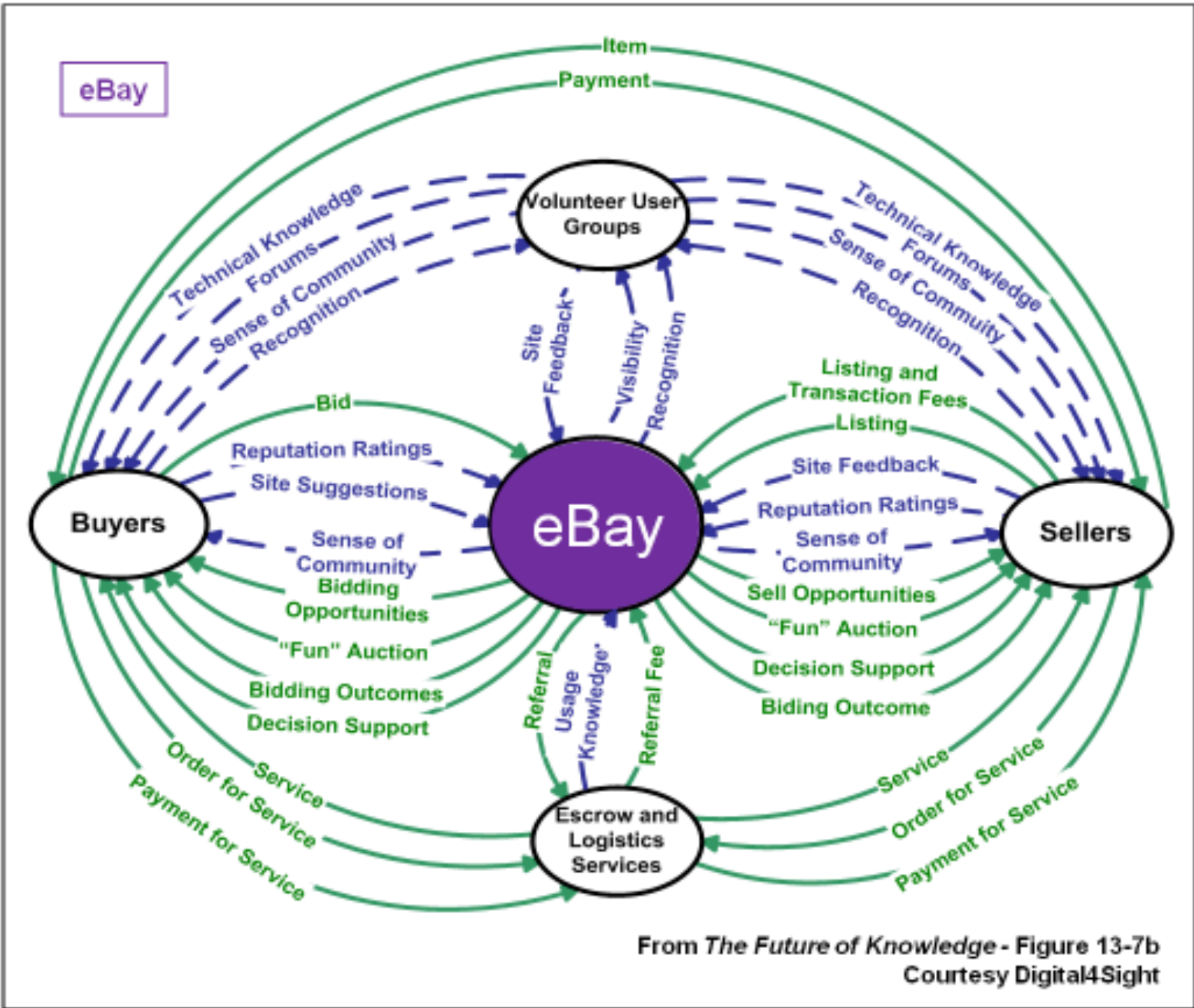
S-D
Logic





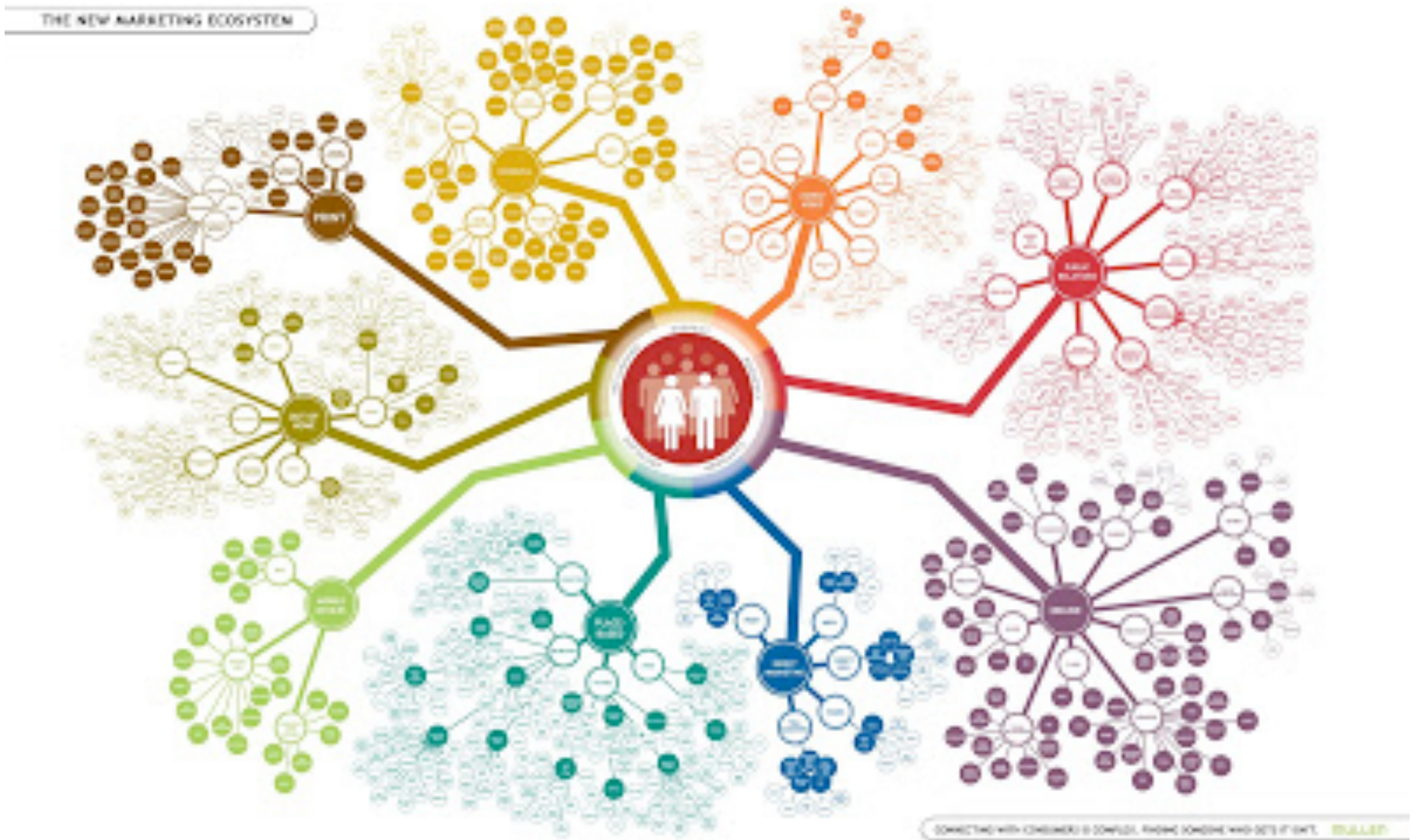
S-D Logic & Theory of the Market





From *The Future of Knowledge* - Figure 13-7b
 Courtesy Digital4Sight

Actor-Centric (Marketing) Ecosystem





S-D
Logic

Grand Aim of S-D Logic

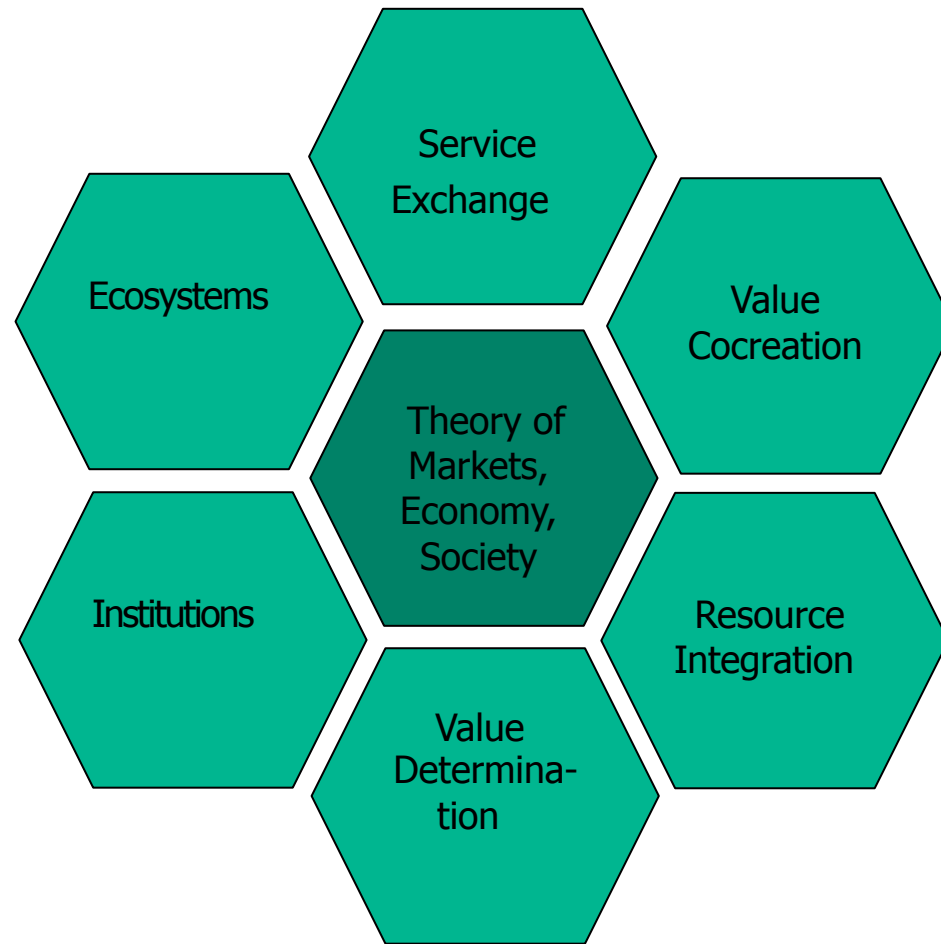


Theory of
Markets,
Economy,
Society



S-D
Logic

Requiring Mid-Range Theories





Major Turns and Transitions

Orientations:

- From co-production to **cocreation of value**
- Actors as **resource integrators**
- From **dyads to networks** (zooming out)
- Value through **experience**
- From B2C (producer/consumer to **B2B**) (**A2A**)
- **Practice-theoretical** approach

Organization:

- From FPs to **Axioms**

Extensions:

- From networks to **service ecosystems**
- **Institutions** as coordinating mechanisms/building blocks

Institutions and axioms: an extension and update of service-dominant logic

Stephen L. Vargo¹ · Robert F. Lusch²

Received: 8 April 2015 / Accepted: 10 June 2015 / Published online: 16 July 2015
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Abstract Service-dominant logic continues its evolution, facilitated by an active community of scholars throughout the world. Along its evolutionary path, there has been increased recognition of the need for a crispier and more precise definition of the foundational premises and specification of the axioms of S-D logic. It also has become apparent that a limitation of the current foundational premises/axioms is the absence of a clearly articulated specification of the mechanisms of (often massive-scale) coordination and cooperation involved in broadly defined service ecosystems. This paper extends and updates service-dominant logic by articulating a new set of axioms and a more precise definition of the mechanisms of coordination and cooperation. The new axioms are articulated in a way that is consistent with the current service-dominant logic and its foundational premises. The new axioms are articulated in a way that is consistent with the current service-dominant logic and its foundational premises. The new axioms are articulated in a way that is consistent with the current service-dominant logic and its foundational premises.

Introduction

It has been a little more than a decade since service-dominant logic (S-D logic) was first articulated (Lusch and Vargo 2004)—now widely known as “D logic”—and over half that time since the evolution of the core framework (Lusch and Vargo 2008). During that period, through the



Contents lists available at ScienceDirect
Journal of Business Research

Fostering a trans-disciplinary perspectives of service ecosystems

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Co-creation
Service-dominant logic
Transdiscipline
Ecosystems theory

1. Introduction

Rapid growth and dissemination of service-dominant (S-D) logic within marketing and service science has provided a new lens for examining business, economy and society. The expansion spans many disciplines including: computer science, information systems, marketing, management, operations management, service science, and supply chain management, as well as specialized applications such as in arts, design, education, health, sports, tourism and others. The development of S-D logic (Vargo & Lusch, 2004) began with the identification of a convergence of ideas and trends occurring for over a century. The underlying purpose was to understand how markets work and what marketing is and how it should be conducted. From the outset, some of this conceptualization was, by necessity, transdisciplinary and drew on work in anthropology, economics, law, management, marketing and philosophy. However, most of it reflected writings in marketing, especially the evolution to marketing thought around “services” (e.g., Shostack, 1977) and relationships (e.g., Berry, 1983), both with a considerable heritage from Northern Europe and the so-called Nordic School (e.g., Gronroos, 1994; Gunnemsson, 1994, 1995).

The initial effort (Vargo & Lusch, 2004) culminated in eight foundational premises that offered the potential for an explanatory foundation

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MIS Quarterly

SPECIAL ISSUE: SERVICE INNOVATION IN THE DIGITAL AGE

SERVICE INNOVATION IN THE DIGITAL AGE: KEY CONTRIBUTIONS AND FUTURE DIRECTIONS

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Elizabeth Davidson

The current issue and full text archive of this journal is available on
www.emeraldinsight.com/2055-6225.htm

Institutions as resource context

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CTF, Service Research Center, Karlstad University, Karlstad, Sweden
VTT Technical Research Centre of Finland, Oulu, Finland,

Stephen L. Vargo
Department of Marketing, University of Hawaii at Manoa, Honolulu, Hawaii, USA

Introduction

Over the last decade, service innovation technologies (ICT) have emerged, changing the way we think about service ecosystems. Understanding these technologies is important for developing a more comprehensive view of service ecosystems. This paper explores the implications of these technologies for service ecosystems and offers some practical implications for service ecosystem design.

The prevalence of service ecosystems has been classified into three types: (1) simple, (2) complex, and (3) dynamic. This paper explores the implications of these types for service ecosystem design.

Abstract

Purpose – The purpose of this paper is to examine the role of institutions and institutions in the process through which resources-in-context get their “resourcefulness.”

Design/methodology/approach – To shed light on the process of potential resources “becoming,” the authors draw from two streams of literature: the service ecosystem and institutional theory.

Findings – The authors combine the process of resources “becoming” with the concept and conceptualize institutional arrangements, and the unique sets of practices, symbols and principles they carry, as the sense-making frames of the “resourcefulness” of potential resources. In service ecosystems, numerous partially conflicting institutional arrangements co-exist with alternative frames of sense-making and action, enabling the emergence of new “resourcefulness.”

Research limitations/implications – The paper suggests that “resourcefulness” is in the complex institutional context in which it arises. This conceptualization reveals the holistic, systemic and multidisciplinary perspectives on understanding the implications of resources “becoming” on value co-creation, innovation and market formation.

Practical implications – As the “resourcefulness” of potential resources arises due to institutions, managers need a more profound understanding of the complementary institutional arrangements and the related practices, symbols and organizing principles in the multidimensional context in which they operate.

Originality/value – This paper is one of the first to focus specifically on the process “becoming,” using a systemic and institutional perspective to grasp the complexity of the “resourcefulness” of potential resources. It also offers a new perspective on the complexity of the “resourcefulness” of potential resources.

Keywords Institutional complexity, Institutions, Resources-in-context, Service ecosystems, Value co-creation

Paper type Conceptual paper

Introduction

Since the publication of the initial work focusing on the collaborative, customer nature of value creation at the turn of the millennium (Normann, 2001; Ramamoorthy, 2002, 2004; Vargo and Lusch, 2004), the phenomenon of value creation on value has received increasing attention (see, e.g., Heide, 2002; Ng and Smith, 2012; Schau et al., 2009; Vargo et al., 2008). Service-dominant logic (Vargo and Lusch, 2004) and its service ecosystems perspective (Vargo, 2014; Vargo and Lusch, 2011) build on and extend this view and contextual view of value creation by highlighting the systemic nature of value creation and the role of institutions in the process. Value is co-created by multiple actors connected through the exchange, institutional application of resources (Lusch and Vargo, 2014). The collaborative, customer nature of value creation implies that resources are always integrated into the process of value creation.

This research has been partially carried out in Digite Need for Speed program at Tekes – the Finnish Funding Agency for Technology and Innovation.



Contents lists available at ScienceDirect
Industrial Marketing Management



Innovation through institutionalization: A service ecosystems perspective

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ABSTRACT

This article explores the role of institutions in innovation from a service-ecosystems perspective, which helps to understand how institutions can influence and extend the research regarding innovation systems. The article provides a framework for understanding the role of institutions in innovation from a service-ecosystems perspective, which helps to understand how institutions can influence and extend the research regarding innovation systems.



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A service perspective: Key managerial insights from service-dominant (S-D) logic

Charles R. Greer, Robert F. Lusch, Stephen L. Vargo

Several hundred years ago, when production began to shift to factories, the firm became a bureaucracy that organized and planned production and its sale. Most production occurred in the cottage or household or in relatively small, crafts-focused shops. The ascendance of the bureaucracy during this period occurred when people, things, and information moved slowly. Network connections between people and organizations were relatively few, short, slow, and at times impossible to develop.

As we entered the Industrial Revolution, few recognized that the transformation was less about manufacturing and mostly about the ascendance of communication and transportation technologies. These developments enabled a revolution in manufacturing and established network connections between people and organizations that increasingly extended to networks connecting things, people and organizations. By the 1950's, most developed countries were moving beyond the industrial era and were entering what some called a “post-industrial,” “services,” “information,” and “network” society. In this era, the revolutions in transportation and communication continued and were joined by a revolution in computation. Soon, the network connections and the transmission of information between people and organizations became many, long, fast, and more easily performed.

During the Industrial Revolution economics was developing as a science, largely based on the pursuit of a Newtonian-like equilibrium model of markets and the economy. At the same time the manufacturing or goods-dominant (G-D) logic of management also developed. G-D logic embraced separating the consumer from the firm (producer) in order for the firm to focus on producing large quantities of homogeneous goods with workers performing highly specialized tasks that increased efficiency (lower costs). These produced goods would then be inventoried and transported to customers

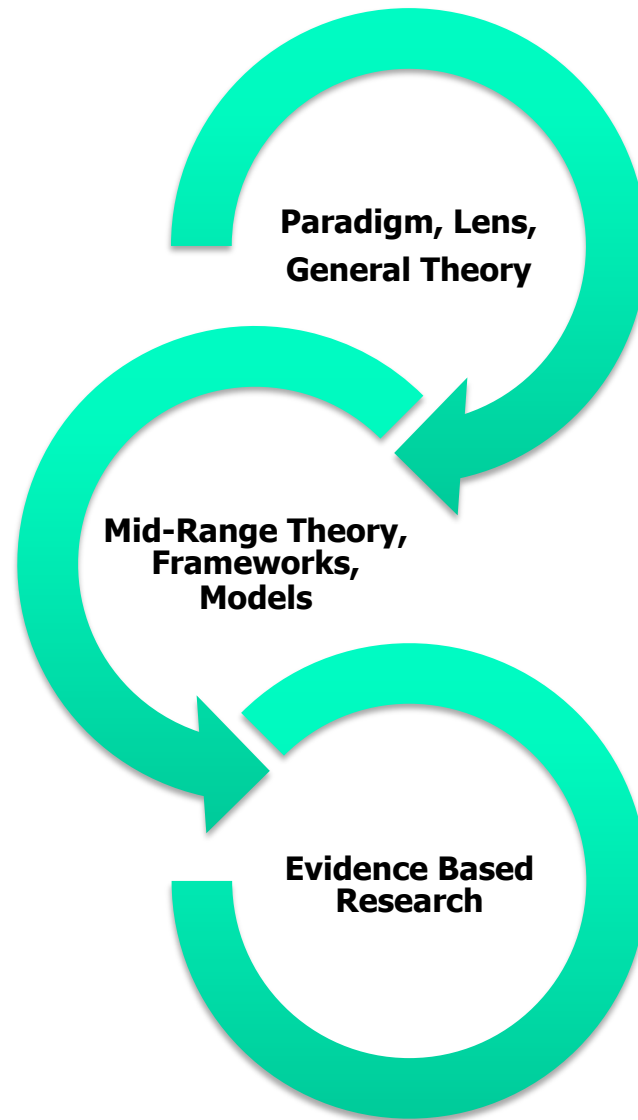
when needed and domestic surpluses would be exported to help create the wealth of the nation. The firm focused on the production and sale of homogeneous units of output at prices that allowed it to maximize profits.

G-D can be best described as a logic of separation. Because people, information and things moved slowly, bureaucratic and hierarchical approaches to management provided good solutions for coordinating work within organizations. In the factory and throughout the organization, people performed specialized jobs in order to gain efficiencies through a high division of labor within the factory (e.g., automobiles, steel, brewing). Even when it came to managing the firm, some individuals performed the job of analyzing the exogenous environment while others prepared multi-year plans and still others performed the control function. Because information was scarce and took time to disseminate, the process of analysis, planning, and control also was costly and slow.

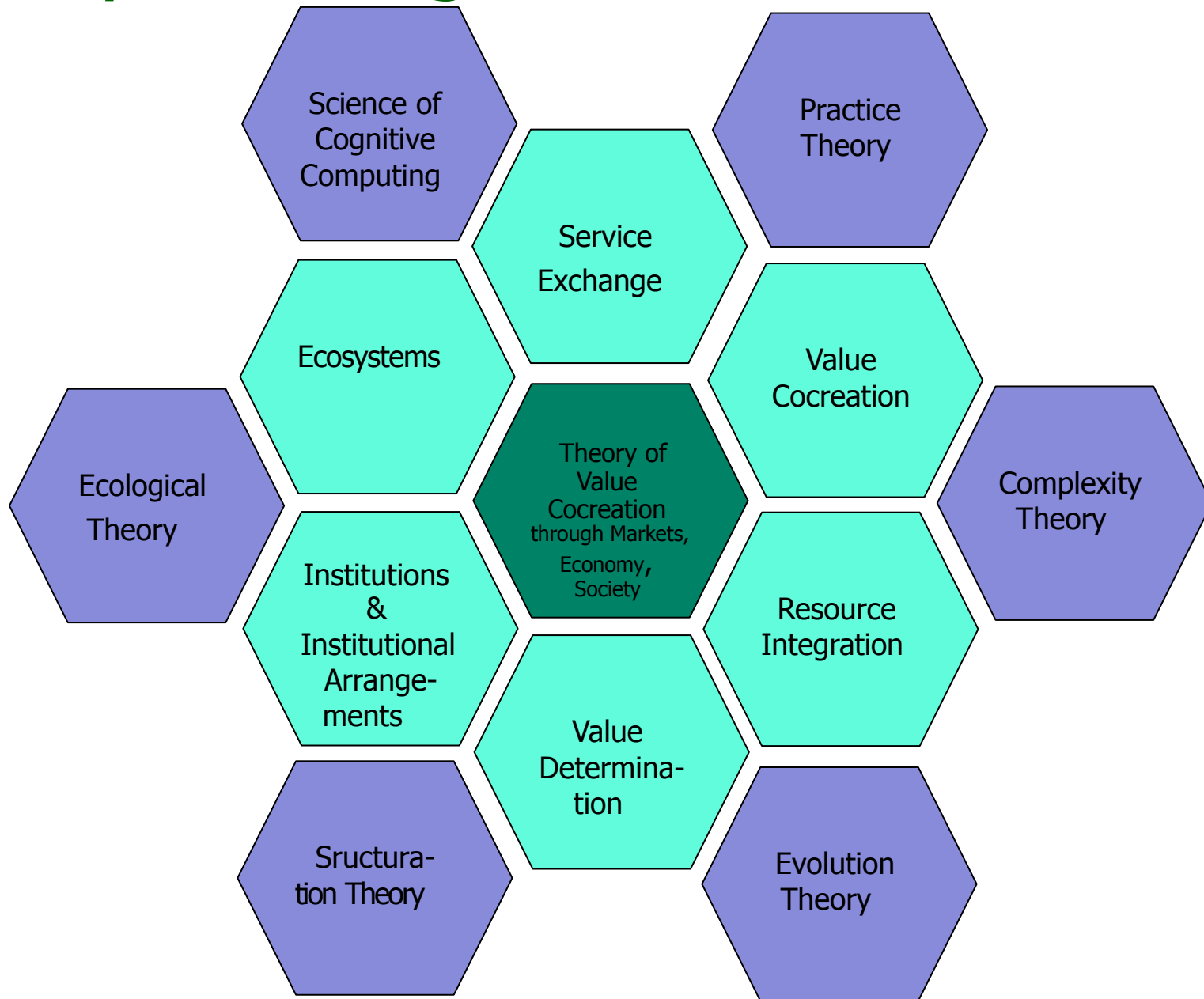
Today, the Internet connects workers, suppliers, customers and other stakeholders. We are now beginning to see more clearly the many-to-many networks that characterize business and society. National, regional and global transportation systems have also enabled firms (e.g. Amazon, FedEx, Walmart) to compete across large geographic markets. Firms also compete for talent, some of which can be obtained through knowledge workers using the Internet to collaborate. More and more specialized business processes are now Internet- or Cloud-based and have been implemented to increase collaboration (both with customers and suppliers and within the firm itself), improve service, and strengthen relationships. Examples of such Internet- or Cloud-based processes include data sharing at Phillips, order tracking at Stanley Black & Decker, knowledge sharing and activity updating at Coca-Cola Enterprises, and account tracking at Herman Miller.



| Levels | Aggregation | | | |
|--------------------------------|---|---|---|---|
| Theory/ Abstraction | | Macro Level (e.g., societal, community -- national, global, local) | Meso Level (e.g., "industry"/ma rket, cartel) | Micro Level (e.g., transaction s, sharing,) |
| | Meta-theoretical (e.g., S-D logic, cocreation of value) | <i>Primary Focus to Date</i> | | |
| | Midrange theoretical (e.g., engagement, coproduction) | <i>Increasing Attention, Looking Forward</i> | | |



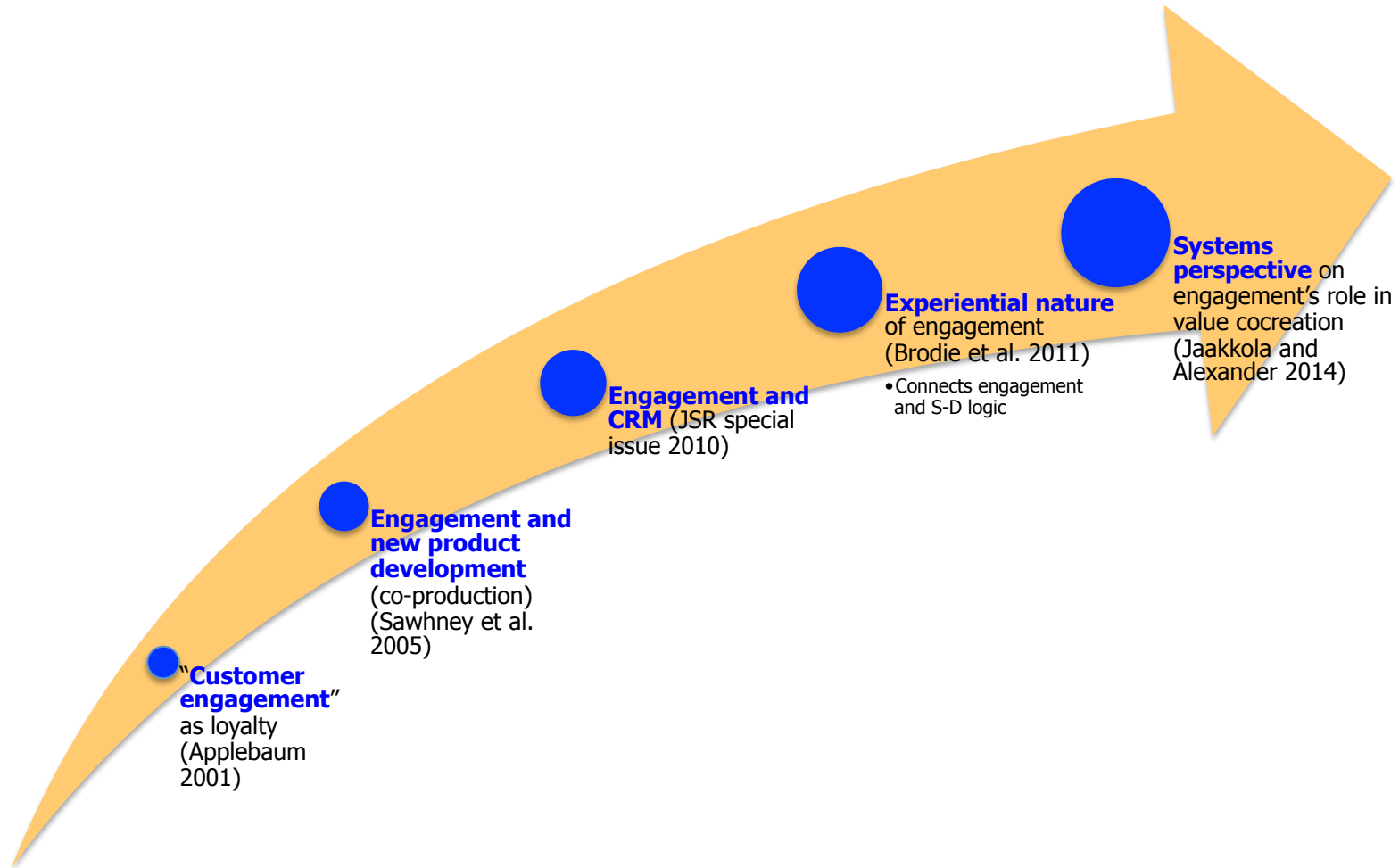
Broadly Drawing from...



From Customer Engagement to Actor Engagement and S-D Logic



S-D
Logic





S-D
Logic

Smart Systems & Science of Cognitive Computing

People with their cognitive mediators can be thought of as systems in networks. For example, a smart service system can be viewed as a type

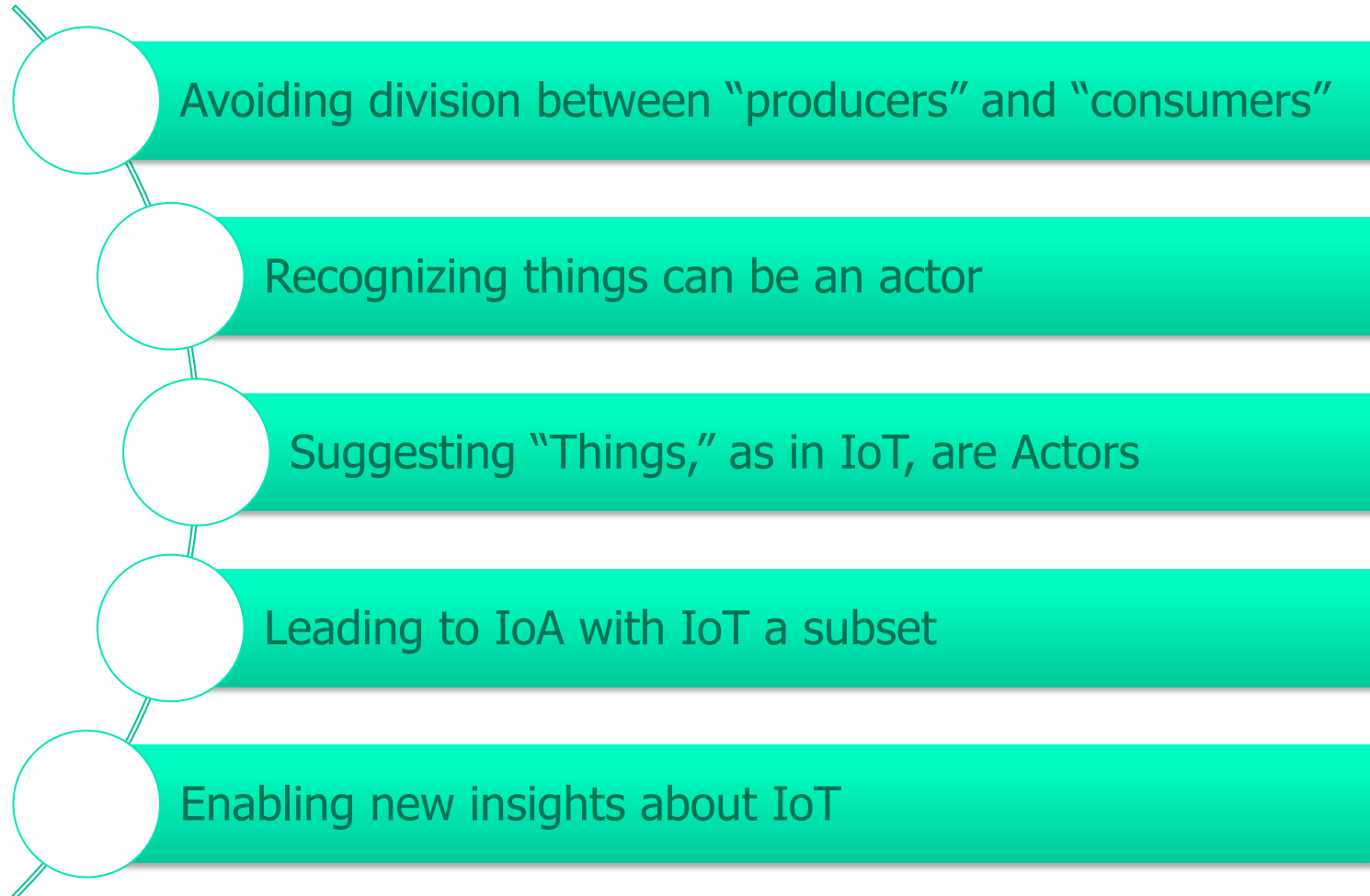
sociotechnical system in which most people are augmented with cognitive mediators to get and give service offerings. A wise service system goes beyond smart, to improve multi-scale entity interaction opportunities generation over generation improving individual and collective quality of life into the future.

Source: Jim Spohrer <http://service-science.info/archives/4166> June 2, 2016



S-D
Logic

Generic Actor and A2A Thinking





S-D
Logic

Program

Idea Sessions

Working-Group sessions

- Suggest 4 (minimum) – 8 (maximum)

Focal Topics

- Institutions
- Ecosystems
- Technology
- Midrange theory development

Networking, informal idea, and social time



S-D
Logic

FMM Associated Special Issues

Journal of Service Management

- Service-Dominant Logic, Service ecosystems and Institutions: Bridging Theory and Practice
 - Abstract submission by September 15

Service Science

- Service-Dominant Logic: Institutions, Service Ecosystems and Technology
 - Full paper submission by Dec 1

Editors:

- Irene CL Ng
- Stephen L. Vargo,

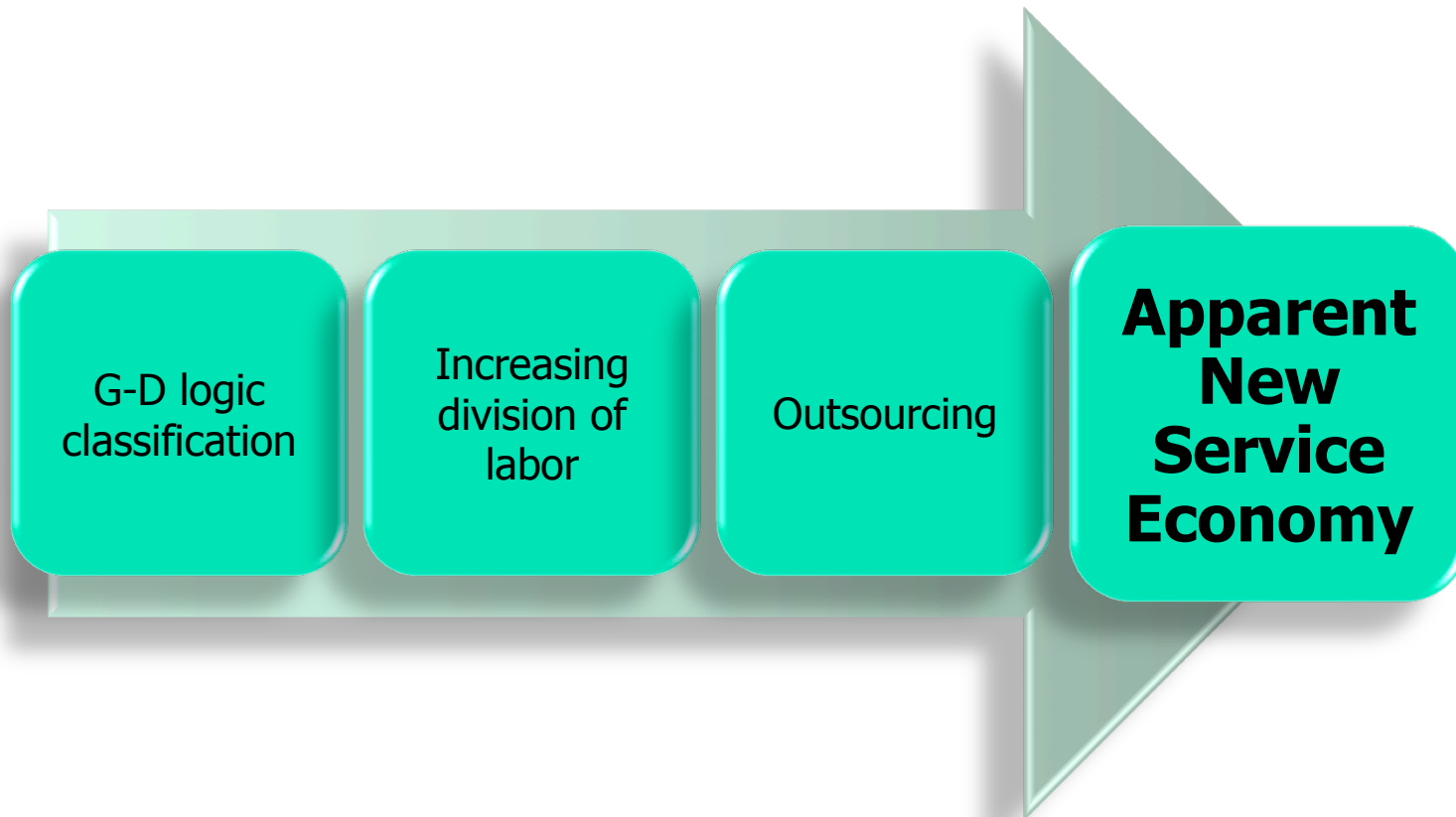
The G-D Logic Source of the “New” Service(s) Economy



S-D
Logic

“Services” Become:

- Intangible output (not very good goods)
- What manufactured goods are not



The Service-Dominant Logic World



S-D
Logic

- **Service** = the use of one's **resources** for **another's benefit**
 - Can be provided **directly** or **through a good**
- **Service ecosystems**
 - **Generic actors**
 - **Service-for-service exchange**
 - **Resource integration** (density creation)
 - **Shared institutional structures**
- **Value co-creation**

An S-D logic and Institutional View on Innovation and Market Formation



S-D
Logic

Technological
Component

- **Duality of Technology;** (Orlikowsky 1992)
- **Tech as useful knowledge;** (Mokyer 204)
- **Combinatorial Evolution** (Arthur 2011)
- Etc.

Reconciles to a:

- **Cocreative,**
- **institutional & performative,**
- **service-ecosystem,**
- framework**

Market
Component

- **Market practices and performativity** (Kjellberg and Helgesson 2006; 2007; Araujo and Spring 2006)
- **Interpretive Flexibility;** (Pinch and Bijker 1984)
- **Markets as institutionalized solutions** (Vargo and Lusch 2014)
- Etc.

Vargo, S.L, H. Wieland, and M Akaka, (2014) Institutions in Innovation: A Service Ecosystems Perspective" *IMM* (in Press)

Technology, Market Innovation & Business Models: A Partial Reconciliation Table



S-D
Logic

| Technology | Market Innovation | Business Models | S-D Logic |
|---|--|--|----------------------------------|
| Duality of Technology; (Orlikowsky 1992) | Market practices and performativity (Kjellberg and Helgesson 2006; 2007; Araujo and Spring 2006) | seek to explain how value is created (not just how captured) | Service Exchange |
| Tech as useful knowledge; (Mokyer 204) | Markets as institutionalized solutions (Vargo and Lusch 2014) | The "institutional logic" of the firm (e.g., Thornton, Casio, and | Institutionalization |
| Combinatorial Evolution (Arthur 2011) | Interpretive Flexibility; (Pinch and Bijker 1984) | Business model innovation (Chesbrough 2007) Emphasize a system-level, holistic approach | Resource Integration/ ecosystems |
| Social Construction of technology (Pinch & Bijker 1984) | | Cocreation-- firm and partner(s) activities play important role | Value cocreation |



S-D
Logic



S-D
Logic

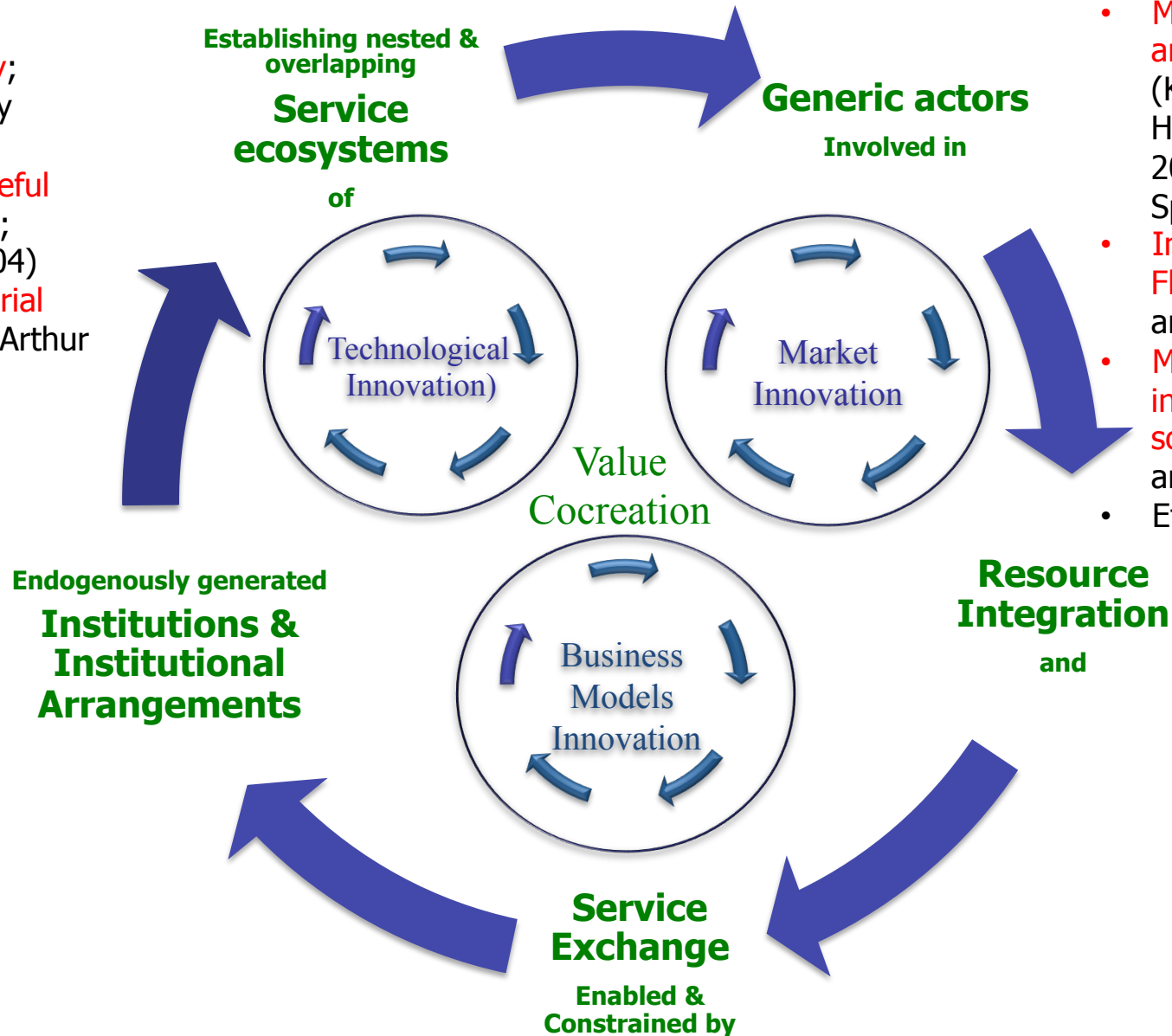
Innovation Becomes...

Developing more effective **value propositions** for participating in **beneficiaries'** resource-integrating, **value-creating practices**, through service

- Systemic, emergent,
- Co-created and co-evolutionary
- Function of (de)institutionalization

A Fractal Model of Value Creation

- Duality of Technology; (Orlikowsky 1992)
- Tech as useful knowledge; (Mokyer 204)
- Combinatorial Evolution (Arthur 2011)
- Etc.

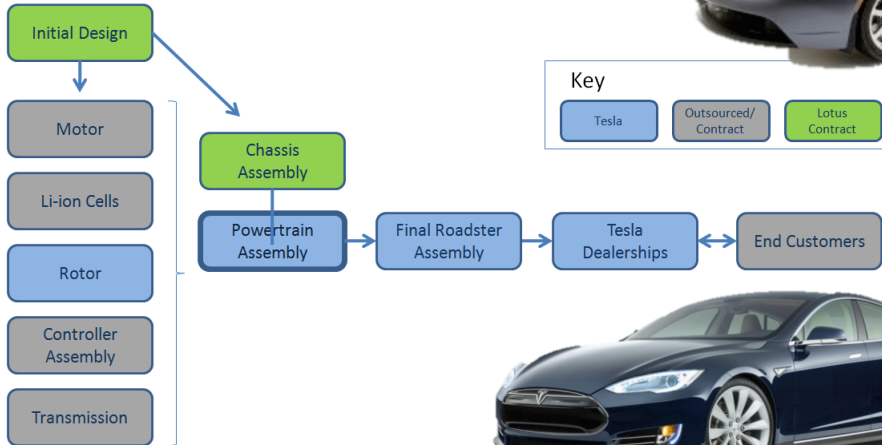


- Market practices and performativity (Kjellberg and Helgesson 2006; 2007; Araujo and Spring 2006)
- Interpretive Flexibility; (Pinch and Bijker 1984)
- Markets as institutionalized solutions (Vargo and Lusch 2014)
- Etc.

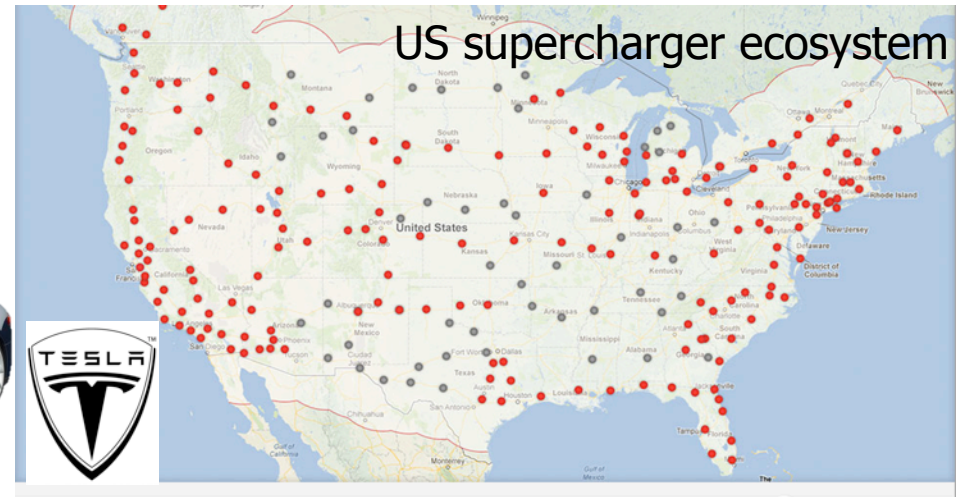
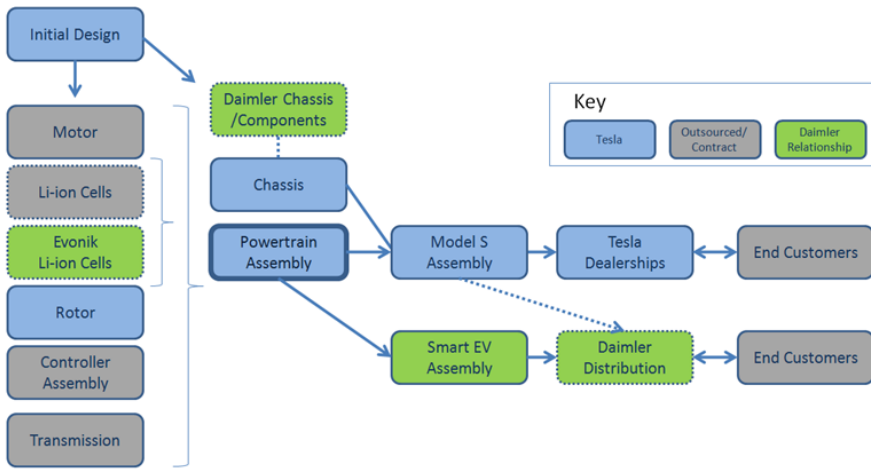
The Tesla Ecosystem Innovations



Roadster Ecosystem



Model S/Powertrain Ecosystem



Other institutional Design Elements

- Laws (e.g., non-dealer sales)
- Habits (e.g., "fueling": more often, while parking)
- Regulations (e.g., preferred parking spots)
- Business model: Open patents to cocreation





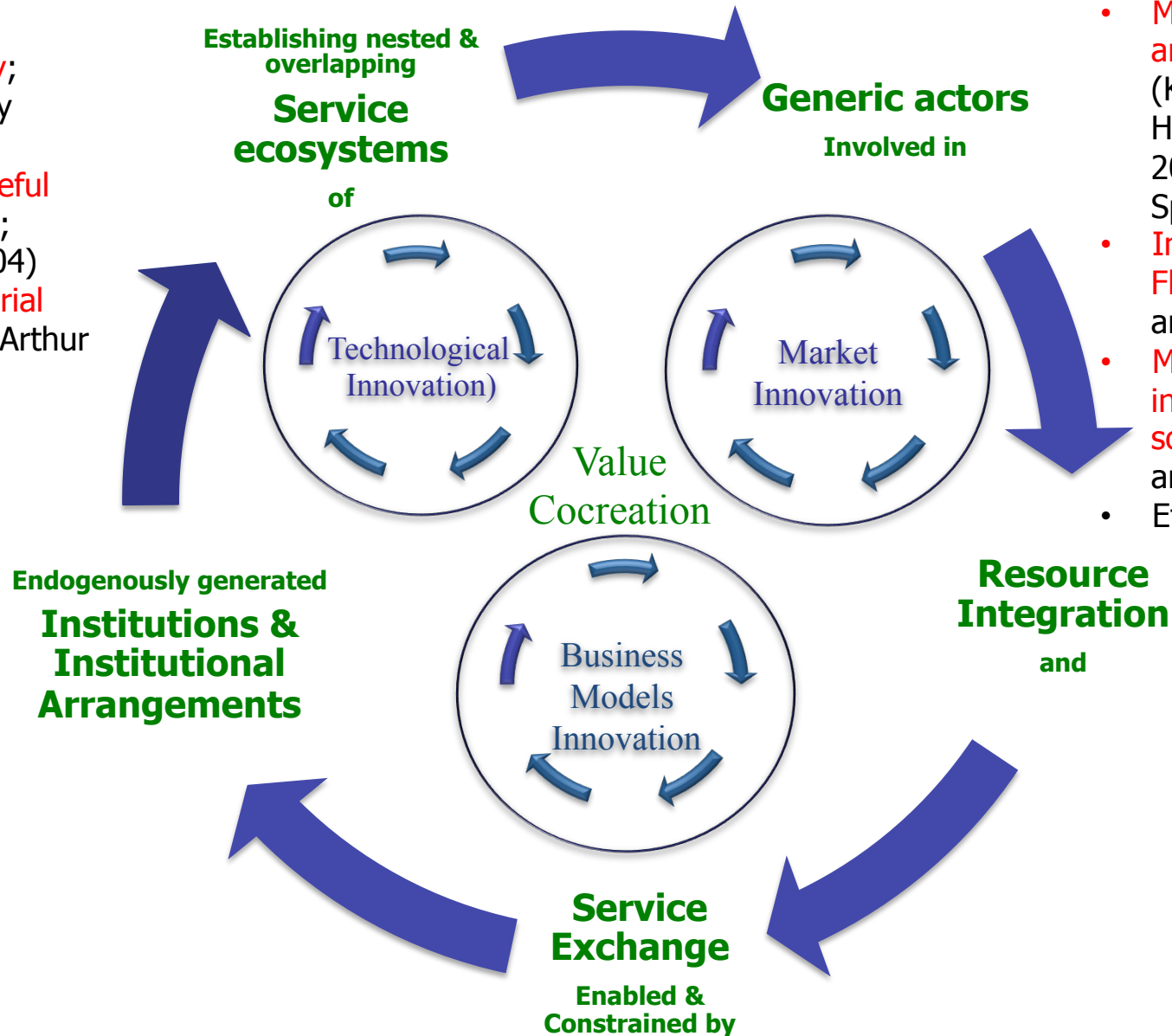
Technology, Market Innovation & Business Models: A Partial Reconciliation Table

S-D
Logic

| Technology | Market Innovation | Business Models | S-D Logic |
|--|--|--|---|
| <p>Tech as useful knowledge (Mokyr 2002)</p> <p>Duality of Technology; (Orlikowsky 1992)</p> | <p>Market practices and performativity (Kjellberg and Helgesson 2006; 2007; Araujo and Spring 2006)</p> | <p>seek to explain how value is created (not just how captured (Zott et al. 2011)</p> | <p>Service Exchange</p> |
| <p>Social Construction of technology (Pinch & Bijker 1984)</p> | <p>Markets as institutionalized solutions (Vargo and Lusch 2014)</p> | <p>The "institutional logic" of the firm (e.g., Thornton et al. 2012)</p> | <p>Institutionalization</p> |
| <p>Combinatorial Evolution (Arthur 2009)</p> | <p>Interpretive Flexibility; (Pinch and Bijker 1984)</p> <p>Markets as socio-technical arrangements or agencements (Caliskan and Callon, 2010)</p> | <p>Business model innovation (Chesbrough 2007)</p> <p>Emphasize a system-level, holistic approach (Zott et al. 2011)</p> | <p>Resource Integration/ ecosystems</p> |
| <p>Technology enables increased density within</p> | <p>Markets as</p> | <p>Cocreation-- firm and</p> | <p>Value cocreation</p> |

A Fractal Model of Value Creation

- Duality of Technology; (Orlikowsky 1992)
- Tech as useful knowledge; (Mokyer 204)
- Combinatorial Evolution (Arthur 2011)
- Etc.



- Market practices and performativity (Kjellberg and Helgesson 2006; 2007; Araujo and Spring 2006)
- Interpretive Flexibility; (Pinch and Bijker 1984)
- Markets as institutionalized solutions (Vargo and Lusch 2014)
- Etc.



S-D
Logic

Rethinking Goods and Service(s)

Wrong Thinking about Goods: **Good are not why we buy goods**

- **Service** (benefits) they provide
- **Intangibles** (brand, self image, social connectedness, meaning)
- **Inputs** into holistic **experiences**

Wrong Thinking about Service: **"Services"** Stated as types of Goods

- Value-enhancing **add-ons** for **goods**, or
- A particular (somewhat inferior) **type of good**: intangible output

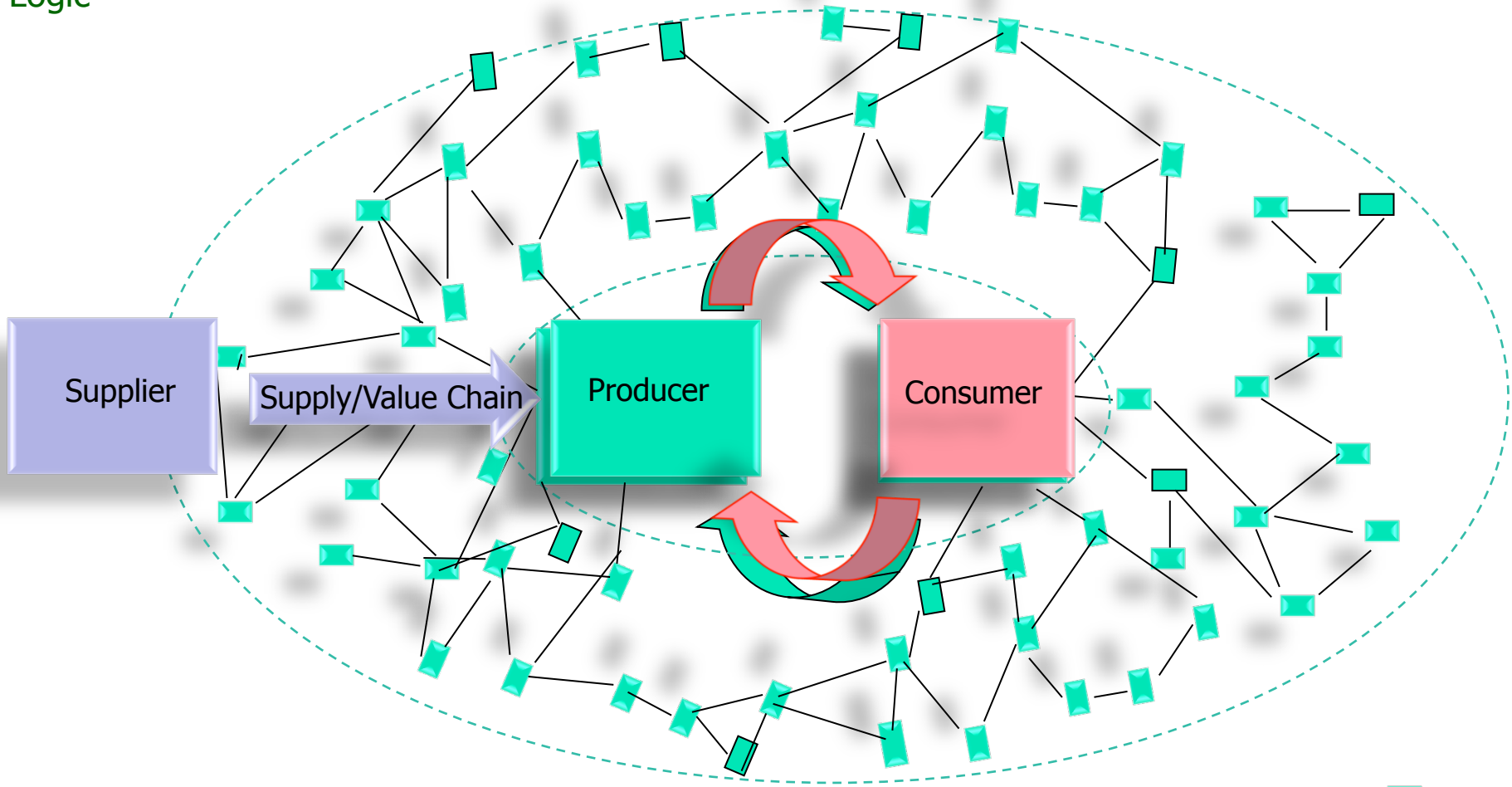
"Right thinking" About **Service**: The S-D logic perspective

- **Service** is a **process**, not a unit of output
 - **Using** one's resources for **another's benefit**
- **Goods** are **delivery mechanisms** for **service**
- **Customers** are not "end users"
 - just **other service providers** (employees, parents, CEOs, etc.)

Micro Exchange Embedded in Complex (Eco)Systems of Exchange



S-D
Logic



Resource Integrating actors

The Structure and Venue of Value Creation: Institutions & Service Ecosystems



S-D
Logic

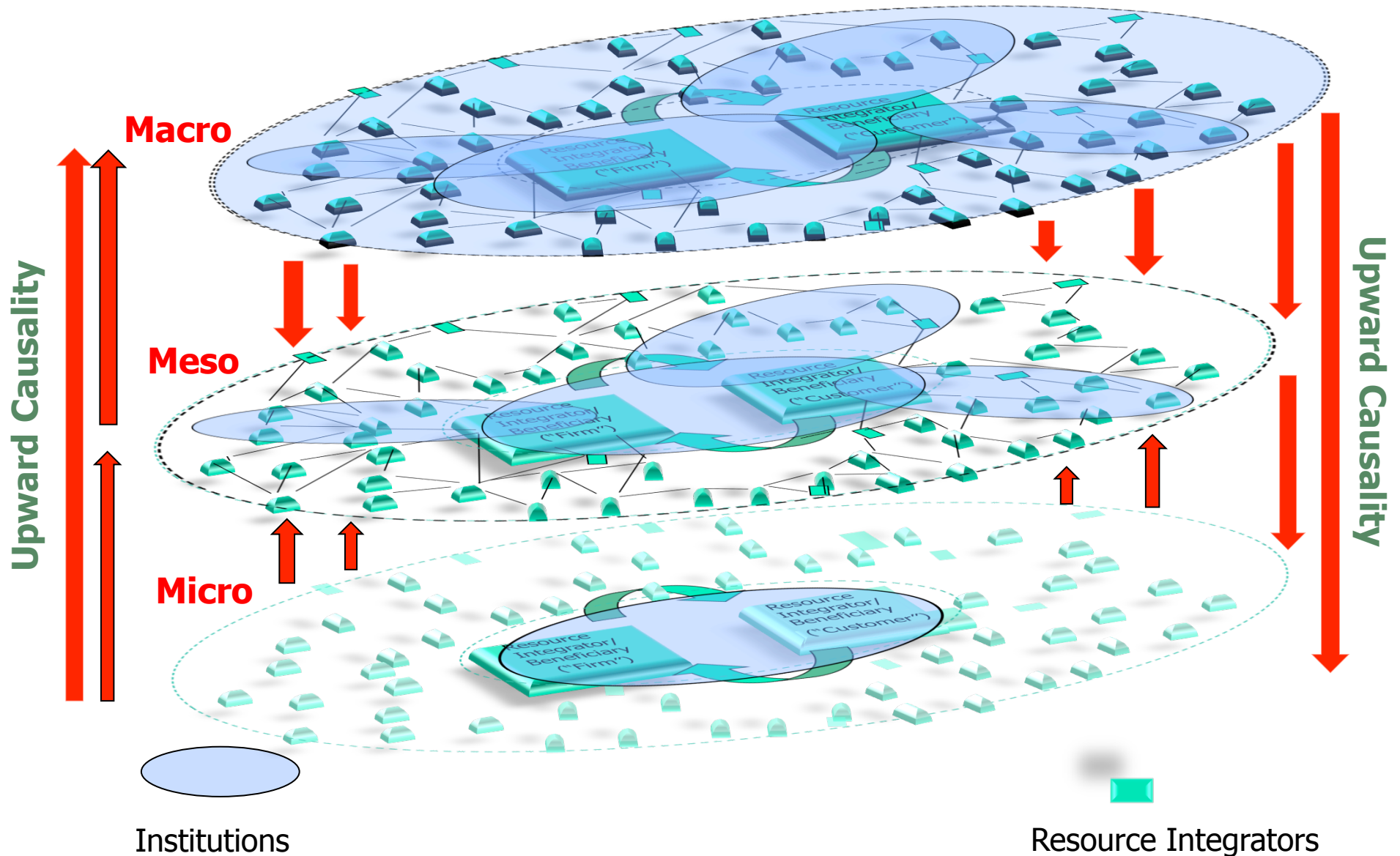
Institution

- “any **structure or mechanism** of social order and **cooperation governing the behavior** of a set of individuals within a **given human community**.”
- (Stanford Encyclopedia of Social Institutions)

Service Ecosystem (S-D logic)

- relatively self-contained, **self-adjusting systems of resource-integrating actors** connected by **shared institutional arrangements and mutual value creation through service exchange**.

Resource Integration & and the Structuration of Service Ecosystems



The Purpose and Power of Institutions



S-D
Logic

“It is a profoundly erroneous truism...that we **should cultivate the habit of thinking** of what we are doing. The precise **opposite is the case**. Civilization advances by extending the number of important **operations which we can perform without thinking about them.**”
Alfred North Whitehead (1911, p. 61)

Institutions allow this limited-cognition rationality.



Full Length Article

Service-dominant logic 2025

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ABSTRACT

During the last decade, service-dominant (S-D) logic (1) has taken a series of significant theoretical turns, (2) has had foundational premises modified and added and (3) has been consolidated into a smaller set of core axioms. S-D logic can continue to advance over the next decade by moving toward further development of a general theory of the market and, even more broadly, to a general theory of value co-creation. To support this theory of the market requires developing three midrange theoretical frameworks and concepts of service exchange, resource integration, value co-creation, value destruction, and institutionalization. These midrange theories can be partially informed by theories outside of marketing, including those under the rubric of practice, evolutionary, complexity, ecological and structuralist theories. Evidence-based research is also needed, opportunities exist in areas such as (1) strategy development and implementation (2) application of complexity economics and (3) the study of the service of cognitive mediators (assistants) as heuristic tools in complex service ecosystems. Additionally, opportunities exist for using S-D logic as a heuristic framework for the study of macromarketing, including ethics, economic, environmental and social sustainability, as well as public policy. For each of these, the further study of institutions and institutional arrangements, which facilitate coordination among actors in service ecosystems, is needed.
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1. Introduction

Service(s) marketing began to emerge in the early 1980s as a distinct area of marketing study and has now become a major focus of marketing scholars worldwide. Initially, probably few scholars, if any, would have envisioned that, several decades later, service marketing might be proclaimed as a transcending perspective for all of marketing, as has been suggested by service-dominant (S-D) logic (Vargo & Lusch, 2004a, 2006a). As Irwin and Huang (2014, p. 200) have recently commented, “Increasingly, and inevitably, all of marketing will come to resemble to a greater degree the formerly specialized area of service marketing.”

Simultaneous with service(s) marketing achieving a wider impact, an idea was surfacing at IBM that, just as it (and other firms) had to take a role in establishing the discipline of computer science, it could be similarly important for industry to take a major role in the advocacy and development of service science. Given the substantial advancements in service(s) marketing, it was not surprising that this effort drew, internationally, on the research of many service(s) marketing scholars and also participation from a host of other leading firms. In particular, the industry leaders of this effort, at the IBM Almaden Research Center, in

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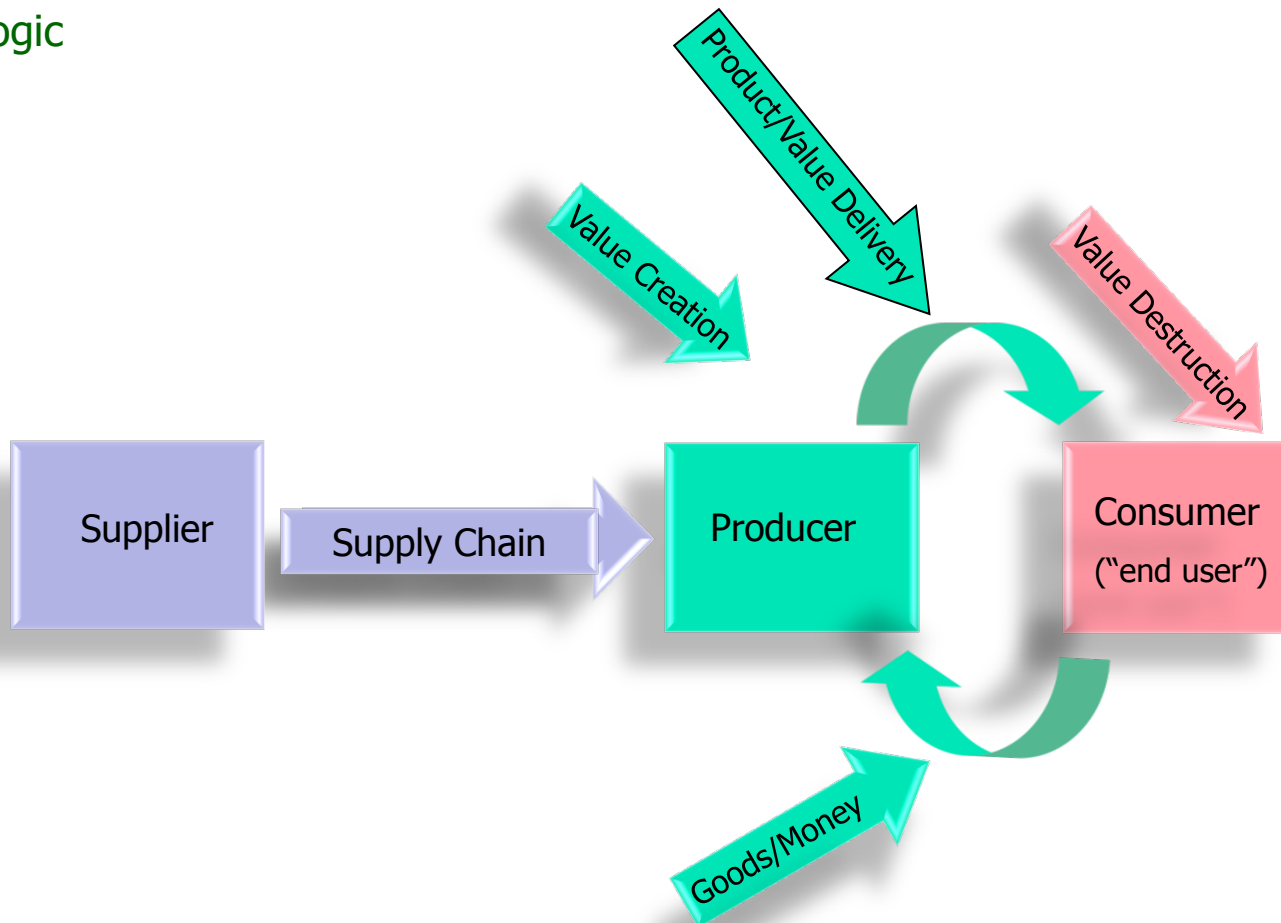


S-D
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The Traditional, "Goods-Dominant Logic," Economic Model



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THE SERVICE-DOMINANT LOGIC PERSPECTIVE