

Chapter 20

Value-in-Context: An Exploration of the Context of Value and the Value of Context



Melissa Archpru Akaka and Glenn Parry

Abstract This chapter contributes to the advancement of service science by exploring the context of value and the value of context in service systems. The work advances theory development of value-in-context; a term initially introduced to conceptualize value within dynamic networks of actors interacting through exchange. More specifically, value-in-context emerged through the early development of service-dominant (S-D) logic and was an important part of the integration of S-D logic with service science. Recently, a service-ecosystems view has been introduced in the S-D logic literature, which has important implications for understanding value-in-context within service systems. The work presented here extends the contribution of S-D logic to service science by drawing on a service-ecosystems view and identifying various dimensions of value-in-context that shape evaluations of experience. More specifically, the chapter considers how phenomenological value is derived and determined within the context of a service (eco)system and offers a framework that conceptualizes value-in-context as a multidimensional construct.

Keywords Value-in-context · Service ecosystem · Service-dominant logic · Value co-creation

M. A. Akaka (✉)

Daniels College of Business, University of Denver, Denver, CO, USA

e-mail: melissa.akaka@du.edu

G. Parry

Bristol Business School, University of the West of England, Bristol, UK

e-mail: glenn.parry@uwe.ac.uk

© Springer Nature Switzerland AG 2019

P. P. Maglio et al. (eds.), *Handbook of Service Science, Volume II*, Service Science:

Research and Innovations in the Service Economy,

https://doi.org/10.1007/978-3-319-98512-1_20

20.1 Introduction

Service-dominant (S-D) logic is a foundational framework for the study of value co-creation in service systems (Maglio and Spohrer 2008). In short, S-D logic is grounded in the idea that service—the application of competences for the benefit of another—is the basis of all exchange (Vargo and Lusch 2004). S-D logic’s focus on what is described as value-in-use, or phenomenological value, as “real value” (Smith 1776) underpins the idea that value is always co-created in service systems because it is derived and determined by a service beneficiary (Vargo et al. 2008). Early conceptualizations of value co-creation in service systems also draw attention to the importance of context, or value-in-context, to highlight the contextual nature of value (Vargo et al. 2008). In the first volume of the *Handbook of Service Science*, Vargo et al. (2010, p. 147) made the connection between S-D logic and service systems by suggesting,

“S-D logic’s redirection of the focal point of value creation, away from a firm’s output (and value-in-exchange) and towards the value uniquely derived and determined by an individual service system (e.g., customer – i.e., value-in-use), emphasizes a phenomenological and experiential conceptualization of value that has most recently been recognized in S-D logic as “value-in-context” (see Vargo et al. 2008). Value-in-context emphasizes the importance of time and place dimensions and network relationships as critical variables in the creation and determination of value.”

Since the publication of the first *Handbook of Service Science*, advancements have been made to the conceptual framework of S-D logic, particularly pertaining to the conceptualizations of value and value co-creation. Thus, exploration and extension of the concept of value-in-context is important because although early work in S-D logic and service science recognizes the role of context in value co-creation, the nature of context and how it influences value was not extensively discussed.

Initial conceptualizations of contextual value center on networks of actors and differences across situations (e.g., time and place) that frame exchange (e.g., Vargo et al. 2008). Networks and situations are clearly important factors for individual actors when determining the value of a particular resource—i.e., resources have more or less value depending on the time, place and social network within which it is used. However, in 2011, Vargo and Lusch introduced the idea of a service ecosystem, which extends beyond situational and relational contexts and provides a lens for viewing multiple levels of interaction and value co-creation. The dynamic, multi-level perspective encourages researchers to “zoom out” to consider micro, meso and macro levels of context that impact value creation, and a meta layer that connects them all (Chandler and Vargo 2011).

Vargo and Lusch (2011) propose researchers adopt a service ecosystems perspective to emphasize the centrality of interactions and institutions that constitute the context through which value is derived. From this view, different levels of context are nested and evolving. The multiple-levels approach helps to reconcile various types of context (e.g., situational, social and cultural) by establishing a meta layer of

analysis that allows researchers to oscillate across different levels of interaction and understand diverse views on value.

A systemic view of value creation is especially helpful in conceptualizing how value is created in service systems—“dynamic value co-creation configurations of resources (people, technology, organizations, and shared information)” (Maglio and Spohrer 2008). ‘Smart cities’ are a type of service system that is emerging and evolving. Originally, the focus of Smart Cities was placed on the development of information communication technologies (ICT) and connectivity between parties within a city. The focus on ICT was a result of the point in history as the concept emerged concurrently with the development of the Internet. More recent work broadens the construct of a smart city to include investments in human and social capital, transport, sustainable economic growth, use of natural resources, participatory governance and ultimately improved quality of life for inhabitants (Caragliu et al. 2011). The vision of smart cities of the future includes a fusion of traditional infrastructures with digital technologies that provide a convergence of information to serve individuals, organizations, the systems of the city, and urban development (Batty et al. 2012). The service of a city will be enhanced through access to past data and real-time data that, through combination and analysis, informs decisions of individuals and organizations.

This chapter takes a closer look at the multiple levels of context that frame the co-creation of value and the impact context has on deriving and determining value within service systems in general, and smart cities in particular. First, we begin with an overview of a service-ecosystem lens for studying value co-creation and value-in-context. Second, we explore multiple levels of context that influence and are influenced by interaction and exchange. We “zoom out” (Vargo and Lusch 2011) using an example within a smart city, which extends from a specific value-creation situation to broader, social, cultural and historic perspectives. Third, we describe how context influences value, and propose a framework for considering multiple dimensions of value-in-context. We conclude with a discussion of the importance of understanding value as a multidimensional construct and highlight directions for future research.

20.2 A Service-Ecosystem View on Value

The intersection of S-D logic and service science establishes a service-centered, systems view on value. The concept of value-in-context emerged through the reconciliation of value-in-exchange and value-in-use, distinct meanings of value that have been discussed since the time of Aristotle (Vargo et al. 2008). On the one hand, value is considered a nominal measure of what a resource is worth, based on exchange i.e., value-in-exchange, and on the other hand, value is considered as an evaluation of a resource, based on how it is used i.e., value-in-use. S-D logic requires researchers engage with both nominal (value-in-exchange) and “real” (value-in-use)

forms of value (Smith 1776), and also give consideration to the context within which a resource is exchanged and applied (Vargo and Lusch 2004, 2008).

Vargo et al. (2008, p. 150) integrate the different forms of value through a systems perspective and argue “Value-in-exchange, therefore, provides a way of measuring relative value within a context of surrounding systems. . . value-in-use can be defined as system improvement within a particular environment (cf. Beinhocker 2006)”. From this perspective, value is: (1) a nominal measure of worth, (2) the evaluation of an experience, and (3) an improvement to a system. This conceptualization of value indicates that value is multifaceted and difficult to define from a single perspective. Moreover, the concept of value-in-context suggests that any measure of value is dependent upon the context that frames a particular exchange, experience or change to a system.

Early conceptualizations of value-in-context focus on situational factors, such as time and place, and their influence on phenomenological views of value (Vargo et al. 2008). As the development of value-in-context concept continued, increasing attention was paid to the embeddedness of value in social networks and how social interactions and relationships influence value co-creation (e.g., Akaka and Chandler 2011; Chandler and Vargo 2011). Building on the network perspective, scholars began to recognize the importance of social practices and structures and how they frame evaluations of experience (e.g., Edvardsson et al. 2011; Vargo and Akaka 2012). Most recently, Vargo and Lusch (2011, 2016) propose a service-ecosystems perspective for conceptualizing value and value co-creation, and emphasize the role of institutions in value creation.

A service-ecosystem is “a relatively self-contained, self-adjusting system of resource integrating actors connected by shared institutional arrangements and mutual value creation through service exchange” (Vargo and Lusch 2016, pp. 10–11). This view of value co-creation and value-in-context underscores the multidimensional nature of social networks and importance of institutions in value creation. Institutions and institutional arrangements (Vargo and Lusch 2016) have been recognized as central to value-in-social-context (e.g., Chandler and Vargo 2011; Edvardsson et al. 2011), as well as value-in-cultural-context (e.g., Akaka et al. 2013, 2015). Cultural views on value consider the importance of social interactions and social structure, but also highlight the influence of signs and symbols in value creation (e.g., Akaka et al. 2014; Venkatesh et al. 2006). The consideration of social and cultural contexts suggests that as individual actors (e.g., people or organizations) interact and engage in exchange with others they are simultaneously contributing to the creation of value for themselves and continually reshaping the social structure (e.g., market) and culture within which value is derived.

One of the distinguishing features of a service ecosystem perspective, which can extend research on service systems, is the emphasis on micro, meso and macro levels of interaction, which are nested and continually evolving (Chandler and Vargo 2011). It is important to note that these “levels” of interaction are not fixed or mutually exclusive. Rather, the multiple levels of context and value co-creation can be conceptualized as aggregations of interactions, which can be viewed from

various perspectives—e.g., dyadic encounters to networks of value co-creation. To understand the relationships across the different levels of interaction, a service ecosystem perspective offers a meta layer of analysis, which enables researchers to move between the micro, meso and macro and gain a more comprehensive understanding of value and how it is jointly created (Chandler and Vargo 2011). A multi-level view of interaction and value co-creation draws attention to the complexity of context that frames value creation and exchange (Akaka et al. 2013).

20.3 The Context of Value

An S-D logic, service-ecosystems perspective emphasizes the contextual nature of value. From this viewpoint, understanding the context of value is central to understanding value itself. In this section we “zoom out” from “micro” to “macro” perspectives to consider different views of context that frame phenomenological evaluations of value. We begin with an exchange context, or service encounter, as this has been recognized as a micro-level point of value co-creation within a service ecosystem (e.g., Akaka et al. 2015). We then zoom out to broader contexts of value and how each context might frame a particular service encounter to reveal deeper insights into what value is and how it is co-created.

To illustrate the different levels of context and how they are related, we situate our service encounter within the context of a smart city. More specifically, we focus on urban transportation and how multiple levels of context frame value co-creation. We use this example because urban transport is a challenge for all major cities and the problems faced are accretive, from micro-level transportation decisions made by an individual to meso-level perspectives of transport providers, through to a macro level of visible congestion and air pollution leading to potential changes in urban planning. This is a central concern for the development of smart cities.

In the following sections, we discuss particular types of context to highlight how evaluations of value emerge and are influenced by a variety of settings. Through the descriptions of each type of context, we provide a running example of urban transportation in a smart city to explicate the importance of zooming out, which elaborates the context of value and provides insight into the value of context.

20.3.1 *Exchange Context*

The study of value co-creation began with discussions of co-creating customer experiences. In particular, Prahalad and Ramaswamy (2004) argue that experiences emerge through the interactions of customers and firms and their efforts to create value by engaging in exchange. Specific points of customer engagement with firms have been recognized as “service encounters.” Surprenant and Solomon (1987, p. 87) describe a service encounter as “a dyadic interaction between a customer

and a service provider,” which is influenced by expectations, and for which value is measured by the level of customer satisfaction. Early on, the study of service encounters focused on the roles of firms and customers in time and place specific settings, meaning that they are finite and generally short lived (Solomon et al. 1985). Work has been done to extend the scope of a service encounter and incorporate the emotional responses of customers across multiple phases—peripheral, core and post-core (Walker 1995), as well as the impact of other people in these specific spaces (Davies et al. 1999). The focus of this context, however, is the direct interaction between a customer and service provider, which is centered on exchange.

Service exchange encounters are prevalent in transportation, a critical aspect of survival in modern times. Urban transportation enables us to travel to work, engage with others, and access necessary resources, such as food and shelter. One of the central needs for transportation is to travel to and from work on a daily basis. If we examine one person’s journey to work, there are many options for engaging in exchange, and each requires the sacrifice of certain resources and tradeoffs. The individual must decide on which resources to access, then engage in exchange to ‘buy’ access to those resources before interacting with a service provider, sometimes multiple times, throughout a customer journey. In London, for example, there is an underground train network, known as the ‘tube,’ which has an iconic map that clearly shows the routes, but is in fact inaccurate with regards geography; in some cases, it is quicker to walk between stations. Taxi, bus, cycling or boats are also viable options as part of certain routes. The decision of the individual is dependent on numerous factors: the requirement to arrive at a certain time which links to the individual’s ability to pay; ability to walk or cycle (e.g., are they impaired with injury, illness or carrying bags?); the current availability of different transport resource; the status of the network and predicted journey times that includes information of possible delays, breakdowns etc.; and as this example is England, the weather.

In this case, situational factors, such as distance and time and exchange factors such as financial limitations might influence a person to use the ‘tube’ to get to and from work each day. A need to arrive at a specific location quickly might mean a taxi or *Uber* is selected. Additional factors such as the weather, safety and costs of alternatives may also influence value creation from this view, and all are part of the context of value and value co-creation. In the development of a smart city, for example, journey planning could be initiated by stating a desired outcome. A decision on which transport option to take is guided by analysis based on real-time data of state of the system, an evaluation of tradeoffs leading to journey optimization. In considering the process of value co-creation we can begin with a service encounter and explore the journey and apply an analytical meta layer to work across micro, meso and macro levels of analysis.

20.3.2 *Social Context*

The study of value-in-context has drawn attention to social aspects of context that frame value creation and exchange (Chandler and Vargo 2011; Edvardsson et al. 2011). Chandler and Vargo (2011) focus on the complexity of social networks that influence value co-creation. They explicate a multi-level framework for conceptualizing context, which includes micro, meso and macro levels of interaction and value creation. They elaborate the embeddedness of these levels and propose the idea of a meta layer for analyzing how value is co-created occur across different levels (e.g., micro to meso) of interaction and institutions. In other words, the service ecosystem is constituted by micro-level dyads, meso-level triads and macro-level networks, which are bound by a meta layer of interconnected interactions (Chandler and Vargo 2011). The level structure enables researchers to oscillate across the different levels and study value and value co-creation from various perspectives. Taking a slightly different approach to social context, Edvardsson et al. (2011) draw attention to the way context is socially constructed through practices and the formation and reformation of social structures. Together, both networks of actors and the social norms and meanings that guide interaction are central to the co-creation of value and the (re)formation of markets (Akaka et al. 2015).

Zooming out in the example of urban transportation, an exchange decision and service encounter may not be solely influenced by cost effectiveness and convenience. The decision to ride (or not to ride) a train also may be influenced by specific relationships or broader social norms. For example, if a person has a friend or friends who ride(s) the tube at the same time to the same places he/she might see this as an opportunity to socialize and build relationships. In addition, socio-environmental concern may give rise to a perceived pressure or desire for walking or cycling, which also may be encouraged and/or socially rewarded. In the London example, a congestion charging zone exists within the city. The charge aims to reduce congestion and thus emissions in order to improve air quality by placing financial burden on those wishing to drive within the city. In concert, the city has encouraged cycling, making riding to work socially rewarded and more popular.

Thus, by considering the social context that frames the service encounter of making a decision to take train or ride a bicycle to work, attention is drawn to additional variables that may influence the co-creation and evaluation of value, i.e., value-in-context. In this case, direct or indirect relationships with others may impact a person's choice for exchange and may also influence the value derived through a particular experience, e.g., a person might feel good about taking the bicycle because it is popular and she is joining with others to help protect the environment.

20.3.3 *Socio-Technological Context*

Value-in-context is enhanced through socio-technical system development. The Internet-of-Things (IoT) describes a variety of technologies that enable objects to be identified, send information or be operated via the Internet. IoT provides the global architecture that enhances intelligence and facilitates provision and exchange of goods and services (Weber and Weber 2010). The infrastructure is in a state of constant development and should, not yet, be considered as a universal, stable or universally available entity (Dourish and Bell 2011). In addition to social influences, technological aspects of context are important for understanding value, because technology is one of the main contributors to value co-creation in service systems (Maglio and Spohrer 2008).

The value of such socio-technical systems for an individual is grounded in the ability for transfer of information through technology. For example, the IoT captures, collects and provides contextual data for both current and future scenarios. Data is a central driver of individual decision-making. Thus, the IoT gives individuals access to data across particular situational contexts and provides insight into how they may enhance their use of resources to create value in a particular context. As an example, data on multiple firms' offerings combined with data on the individuals' specific use of those offerings in context would inform their purchase or contract renewal decisions.

For the individual in our example, she may be able to track how much time, on average, is spent in transit and accommodate for that time by selecting specific music for entertainment. Furthermore, she may be able to share geographic information for friends or family members who are interested in this information. For transport providers, understanding of value-in-context is enhanced through the collection of data from the specific point of use. Here the IoT and other systems can give details of how the individual is creating value whilst enmeshed as part of the human/technical system in which their offer is embedded. Visibility of consumer use (Parry et al. 2016) of multiple resources in context provides many possibilities for providers.

A future smart city may also provide access to aggregated data and analysis that includes pedestrian flow levels and 'cross traffic' (Wang et al. 2016). Research has linked data with measurement of air quality, and also measurement of stress experienced by individuals as part of their journey (Zeile et al. 2016). Such data linkage allows for the design of offers for a specific individual in a particular context and facilitates alerts that enable a firm to respond to urgent need. Empirical data would provide organization's both large and small with evidence for investment decisions. Continuing our travel example, a town council may have visibility of all its assets in use e.g. traffic lights, rail, roads, street lights, bus services etc. For employers, the employees would be more likely to arrive on time, boosting productivity. Firms may further be helped by technology to find greater efficiency in travelling to client meetings. Individuals could collect data on previous journeys and share that with others to help improve analysis and optimization. Allowing data to be shared across the levels of aggregation means the smart city can integrate data and undertake

analysis to optimize individual, firm, organizational or societal goals. When such analysis is undertaken, tensions will arise between competing demands. For example, an individual may desire speed and opt for a taxi, but social or regulatory pressures for clean air and reduced congestion may suggest cycling. It often becomes a question of policy and governance how prescriptive such systems become.

20.3.4 Cultural Context

Cultural context builds on the notion of social context (Edvardsson et al. 2011) and considers the sign systems and related symbols that frame value creation and exchange (Venkatesh et al. 2006). This context provides a broader backdrop for exchange than social and socio-technical lenses because it highlights the cosmological principles that influence meaning (Penaloza and Mish 2011). Importantly, the cultural context framework can be scalable to any level of interaction and is not only a global-level perspective (Akaka et al. 2013b). Arnould and Thompson (2005, p. 869) discuss the nature of consumer cultures and conceptualize “culture as the very fabric of experience, meaning and action.” Extending this view of culture beyond a consumption perspective, Akaka et al. (2015, p. 270) conceptualize cultural context as “a collection of practices, resources, norms and meanings that frame the co-creation of value and guide the evaluation of an experience.” This definition includes components of the social context described above, but also considers the impact of cosmological principles and symbol systems as well (Penaloza and Mish 2011).

Extending beyond the exchange/situational, social and socio-technical views, cultural contexts reveal structures of common difference that enable one group to be distinguished from another (Wilk 1995). For example, whereas riding a bicycle is common practice in a city like Amsterdam—cycling is a ‘cultural norm’, taking a tube train is common in London, and driving in a car may be the most popular mode of transportation in Los Angeles. While these practices are impacted by the infrastructure and the technological aspects of context, it is also important to note that social norms are a powerful driver of human behavior and cultural differences across different groups of people indicate that just because you build it, does not mean they will pay for and/or use it.

The consideration of cultural context is a particularly important notion in the development of ‘smart cities.’ This is because, using new technologies often require cultural shifts that relate to widespread understandings of how people live out their daily lives. For example, cultural norms may lead people to be sensitive to privacy issues when it comes to capturing and collecting personal data. In some cultural contexts, privacy may not be as big of a concern as in others. This, of course, is related to social norms of enabling companies to track different patterns of behavior, but is also tied to cultural meanings of privacy and security. Thus, from a cultural context view, developers of smart cities need to consider how best to offer improved service efficiency, while creating value for communities. Technology allows for

accretive datasets through low cost interaction with individuals, which together creates ‘big data.’ Although society would benefit from optimization of journeys within a city through enhanced productivity and potentially lower emissions, the co-creation of value will also depend on how people perceive the relationship between data and privacy. In addition, it is important to note that culture is continually in flux. Thus, the influence of a particular cultural context can change over time, giving rise to observable changes across the micro, meso, and macro levels, and lead to systems change.

20.3.5 Historical Context

The historical context of value is essential for understanding how socio-technological and cultural contexts change over time and how views on value evolve. It is clear that technology and information have long influenced service transportation decisions. For example, in twelfth century London individual public transport was river based, with rowing boats transporting passengers between the slipways, which are recorded in the Domesday Book of 1086. Value for the customer emerged through service offering efficient and safe passage on the river undertaken by a Thames Waterman, whose knowledge was recognized through their membership of a guild, ‘The Company of Watermen and Lightermen’, as well as regulated fees. For organizations, worth was supported through the social recognition of the value of their knowledge and practice. This ecosystem of rowing boats and skilled oarsmen evolved over time. A seventeenth century technological revolution, in the form of the horse and carriage and improvements in bridge building, effectively ended the water taxi ecosystem. In turn, the horse and carriage was displaced in 1903 when new technology, such as the combustion engine, powered taxis and buses, were introduced. Combustion engines remain dominant today, though electric hybrid vehicles are increasingly being employed. It’s important to note that although change occurred over time, innovation is not a linear process (Kline 1985). Market feedback loops on which types of transportation would replace others reveal how some types of transportation remained constant while others evolved.

What had remained relatively unchanged since the twelfth century was the value created as a result of the watermen/driver’s knowledge of the best routes to take between locations in given conditions. The practice of skilled individual transporting passenger is reproduced and institutionalized, so whilst the technology has changed, the practices appear similar. Today, London Black Cabs drivers require a 3-year apprenticeship to learn ‘The Knowledge’ of routes and the possible alternatives when congestion is bad. Further, in black cabs, as in many other taxi services, the customer does not know the final price until the journey is complete, and price is dependent on journey time, distance, time of day and number of people being transported. Knowledge is held within the provider network which ensures standards and creates barriers to market entry thus enabling higher pricing which enables drivers to earn a fair living from their knowledge (Beesley 1973).

This brief illustration of a historic context of transportation draws attention to how value emerges through the development and evolution of a service system. More specifically, transport decisions are made by individuals at a micro level, and mechanisms of value capture protected by organizations at a meso-level. However, disruptive innovation at a meso level are influencing the value creation systems at a macro level, as well as a micro level, as social and cultural contexts of the transportation industry has changed dramatically in recent years (Wood et al. 2017). New market entrants to the taxi/minicab business such as Uber and Lyft utilize new technologies, which create platforms that integrate driver with customers and utilize macro level data sets that map the transport network and employ routing algorithms that dynamically adapt to congestion and inform drivers accordingly. Thus, this historical context provides insight into how situational exchange contexts might vary across time and space. In addition, social and socio-technological aspects of context are also clearly connected with situational and exchange contexts as these new technologies and social norms influence individual choices of transportation and value creation.

From a smart city perspective, data can be captured across various service encounters and throughout a customer's experience journey. For example, data collected on the location of vehicles and the price of the journey can be shared with the customer as well as the organizations providing various services. Data therefore informs the value decisions of both the firm (e.g., driver) and customer. Over time, value may also accrue at a societal level, for the city in this case, through reduced congestion and lowered air pollution. This historical view indicates that system value optimization may be achieved through ride sharing, and scenario modeling in New York City suggests that if customers share rides there are fewer journeys, time is saved as there is less congestion, and emissions are lowered (Ota et al. 2015). By considering the past, the present and the future, designers of smart cities can help create better options to optimize value co-creation for a variety of current and future citizens.

These overviews of different "types" of context enable the reader to zoom out from a specific exchange context or service encounter to understand the social, technological, cultural and historical variables that can potentially influence value co-creation and the evaluation of a particular experience. Figure 20.1 illustrates how micro, meso, and macro levels of context (Chandler and Vargo 2011) constitute value-in-context.

Whereas the different surfaces indicate that contexts can be considered from various levels of analysis, the vertical lines represent a meta-layer that enables researchers conceptualize the embeddedness across the levels of context and draws attention to how interaction across the three levels propels systems change. Although this figure depicts the existence of multiple levels of context, it does not fully reflect how value emerges and is evaluated within a particular context. This is discussed in the section that follows.

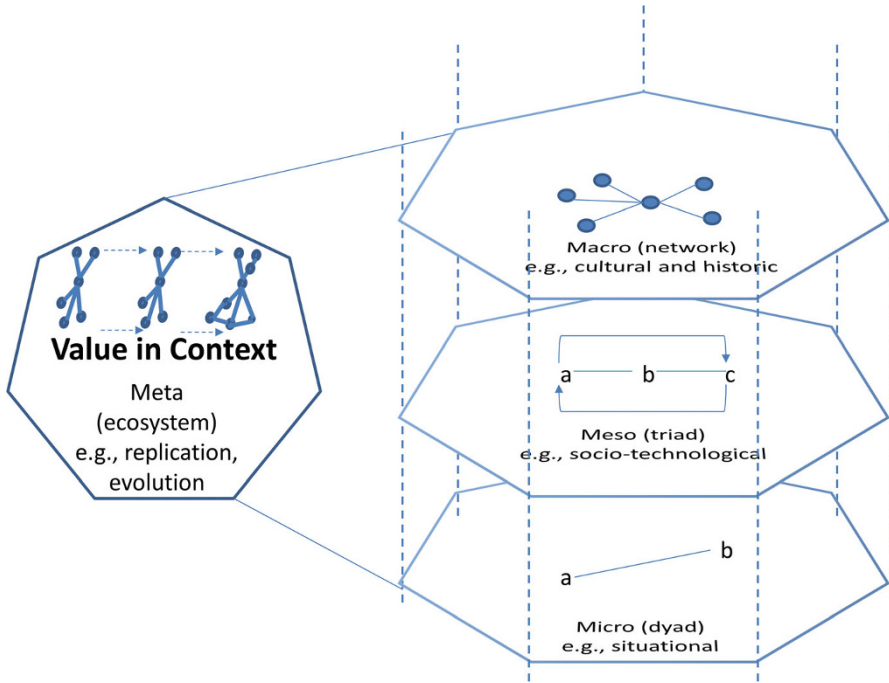


Fig. 20.1 Levels of context

20.4 The Value of Context

The preceding section provides a framework for conceptualizing multiple and embedded levels of the context of value, which is based on a service-ecosystems perspective (Vargo and Lusch 2011, 2016). This next section discusses the value that emerges through exchange, social, socio-technological, cultural and historical contexts. We continue to draw on an S-D logic, service-ecosystem view, which highlights the phenomenological nature of value, within a dynamic systems perspective. In this view, context influences phenomenological value by framing our ‘lived experiences’ (Thompson et al. 1990). This contextual and phenomenological view on value suggests the study of value can be explored through various entry points of context (e.g., situational or historic), but always rely on evaluations of experience that may vary throughout a service system.

20.4.1 Phenomenological Value

From the onset, S-D logic promoted a shift in focus from value-in-exchange and towards value-in-use (Vargo and Lusch 2004, 2008). This shift toward use value is

premised on the application of a resource in a specified context. That is, value is not created through a “production” process; rather, value is derived through the use of an offering and phenomenologically determined by a service beneficiary. From this viewpoint, value is phenomenological because it relies on the perspective of a service beneficiary and is determined in a particular context. Importantly, Vargo and Lusch (2004) argue it is not the resource itself that is of value, but rather the service that a resource can render (Penrose 1959), as ‘resources are not they become’ (Zimmermann 1951), which is to say a resource only becomes useful when employed. Along these lines, a phenomenological view of value centers on the evaluation of a micro-level experience at a particular time and place, and by a specific actor. However, as noted above, value is also influenced by other levels and wider contextual frames i.e., social, technological, cultural and historical.

Phenomenological or experiential value implies that value is not embedded in a given object (Ng and Smith 2012). Rather, value emerges as an artifact becomes a resource through value-creation processes (Zimmermann 1951). Value co-creation suggests that value is created through the integration of resources and interaction across multiple actors, but is always determined by a specific beneficiary. Phenomenological experience value [PE Value], as it is named by Ng and Smith (2012), is conceived in the experience of objects for purpose by the user. Thus, an object’s meaning is reconstituted during an individual’s experiencing of that object as she integrates it into their system during use (Lavery 2003; Husserl 1939). Along a similar vein, Heidegger argues that the capture of direct experience, is not possible as description is interpretation and the process of interpretation requires the individual undertakes reflection (Heidegger 1962). Understanding is necessarily embedded in, and shaped by, a person’s history. Individuals draw on their past during reflection as the pre-understanding and prejudice developed from previous experiences provide the frameworks that enable them to make sense of their world (Gadamer 2004).

As frameworks of understanding, language used, and prejudices developed are dynamic, so too is the phenomenological experience value ascribed to service in context. Phenomenological experience value is an interpretation of experiential value expressed at a point in time and based upon an individual’s knowledge and experience. However, value perception is influenced by broader social, technological and cultural contexts and is open to change. The historical aspect of context is equally as important as others because as time passes, context changes; the moment of natural existence is forever lost. Expressions of experience of phenomenological value are at the apex of past/present/future and are shaped by and in turn may shape context. Reflecting back on any experience is undertaken from a different point in time and new context, which necessarily shapes the perception of the observer. Thus, what is perceived as the truth of historical experience is actually only a perception based upon a different context. In other words, phenomenological value of a particular experience or service encounter changes as an individual reflects and re-reflects on that instance. Thus, context at the time of the reflection, or evaluation of value, is equally as critical for value co-creation as the context at the encounter itself.

We can see this played out in online reviews that give insight to individuals experience. Whilst notionally the reviews would reflect the individuals experience of the micro-level transaction, such as the train journey. However, their reflection of a ‘good’ journey may later change if they hear others were faster or cheaper, changing the phenomenological value.

20.4.2 Dimensions of Value-in-Context

Conceptualizing phenomenological value as a ‘lived experience’ requires the consideration of multiple levels of context, as discussed above. Each level of context frames any given experience. However, focusing on different levels of context that frame value creation (Chandler and Vargo 2011) can draw attention to different types of value (Penaloza and Mish 2011). In particular, Penaloza and Mish (2011) discuss three levels of value, which align with micro, meso and macro levels of value co-creation—experiential value (micro level), social norms and values (meso level), and cosmological principles and meanings (macro level). These different types of value are related to phenomenological value, but meso (values) and macro (meanings) levels of value align more closely with social and cultural contexts, respectively. In other words, the meso and macro levels of value (i.e., social norms and meanings, respectively) also constitute the context through which phenomenological, or experiential, value are derived and determined (i.e., social and cultural contexts). Given the apparent alignment, we propose that a focus on phenomenological value (Vargo and Lusch 2008) and how it emerges through multiple levels of context brings together various viewpoints and increases parsimony in studying contextual value. Based on this, we identify several dimensions of value-in-context, which are influenced by the embedded levels of context discussed above.

The multiple dimensions for conceptualizing value-in-context together constitute the meta layer of analysis (Chandler and Vargo 2011) that brings together the different levels of context into a comprehensive understanding of value. The meta layer is difficult to conceptualize and even more challenging to study as it cuts across multiple levels of analysis, which often require different methodological tools to measure. However, it is important because without cutting across the different levels of context over time it is difficult, if not impossible, to develop a holistic understanding of contextual value. Figure 20.2 illustrates how the meta layer helps to flatten different levels of context and how each level of context influences value determination depending on the contextual lens used.

In the case of urban transportation, to understand phenomenological value in the context of exchange, or during the service encounter, would require a focus on the direct interaction between a customer and an organization. In this situation, the ‘lived experience’ could be evaluated during the direct interaction between customer and provider, or while a person is going through a particular customer experience journey, such as deciding to purchase a ticket or a pass, making the purchase, riding the train, exiting the train, and arriving at their destination (see, for example Berry

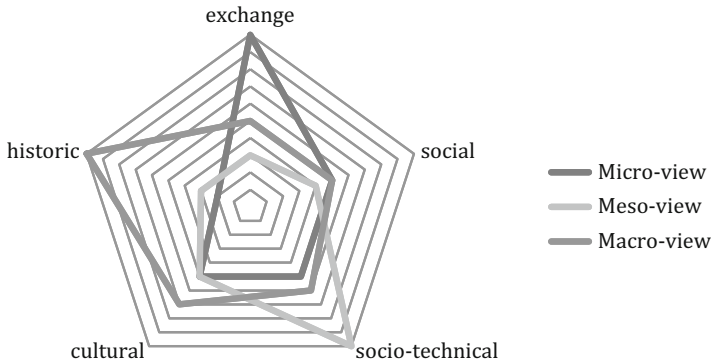


Fig. 20.2 The meta layer of value-in-context

et al. 2002). However, focusing on the evaluation of an experience at this level places the specific exchange or service experience at the forefront of the emergence of value-in-context. Thus, the additional dimensions of context are distanced from evaluation and, perhaps, measurement of this view of value. For example, social contexts such as networks of relationships and overarching norms for social desirability (e.g., ecological ideals) are less influential than the timeliness and cleanliness of the train and the immediate situational surroundings. Thus, the direct impact on an evaluation during a particular service encounter likely relies more on situational cues than social, cultural or historical ones.

At a meso-view of value, however, the evaluation of the service of the train may include information beyond a particular service encounter and to include overall attitudes towards a service provider as well as the socio-technological aspects of value and value co-creation. From this viewpoint, important factors may include the types of technology integrated into the transportation delivery system, such as the core technology that enables a train to function. In addition, supplemental technologies can potentially enhance the experience of multiple travelers, such as wireless Internet and a mobile application that informs passengers of changes in the schedule. The focus of phenomenological value is placed on the necessary components that enable the enhancement of multiple experiences for multiple beneficiaries, including passengers and the organizations providing the transportation services. Service providers should consider the value derived and determined by customers through individual service encounters. This is an important perspective because customers make exchange decisions based on past experience and overarching value propositions. An employee who is tasked with engaging with customers directly will also benefit from understanding the wider socio-technological context contributing to value creation. This market feedback loop can lead to improvement of a current value proposition, or possibly create a new one (Kline 1985).

A macro-view of value requires the consideration of cultural as well as historical contexts as well as considerations of future value creation. From an individual's

perspective, a person's past experiences or experiences in a particular culture shape all evaluations of experience thereafter. For example, if a person who is born in the United States (US) travels to the United Kingdom (UK) she may hesitate when taking public transportation. However, prior experience with public transportation in the US will help this individual with shared norms within the value co-creation process, such as understanding instructions, reading maps and understanding payment options. In this way, prior experience using public transportation, regardless of how unpleasant the original encounter may have been, continues to help co-create value in a separate situational exchange context. In addition, if an individual is focused on creating future value for himself and for society, he might make specific choices, such as taking public transportation instead of driving. He may also interact with particular groups or participate in particular social movements to address related issues, such as global warming.

Value created through present experiences are also relative to past experiences and future expectations. If the UK experience is less pleasant than prior experiences, this will help to change value to perceptions of previous encounters to being more positive, while lessening the perceived value co-created in the new service encounter. Alternatively, if the UK experience is far better than any experience in the US, the individual will reflect on past experiences and view them even more negatively. The present experience is also likely to impact future experiences as he will be more reluctant to use public transportation in the US. In this way, historical views of phenomenological value are shaped not only by past experiences, but by present and future encounters as well. This macro-level view draws attention to past experiences and influences the impact of the present and future service encounters. In other words, whereas a person from the UK might have the exact same exchange encounter as a person from the US, the phenomenological value will differ depending on past experiences and cultural context, and so value is greater than an evaluation of the encounter alone. This is an important consideration for understanding how value is created across cultural and historical contexts.

It is important to note that all of these views could be centered on the same exchange or service encounter (i.e., customer experience journey). Differences in ecosystem perspective, such as individual vs. organization or micro, meso and macro, can alter the phenomenological value derived and determined from a particular service offering. In addition, individual perspectives associated with different historical and cultural contexts can also lead to stark differences in phenomenological value derived and determined in a particular context i.e., value-in-context.

20.5 Discussion and Conclusion

The value-in-context concept provides important insights into how context influences individual needs and actions, which influence interactions among multiple actors in systems of service exchange. From this viewpoint, situations, social networks and structures, and cultural meanings all play an important role in the

co-creation of value. Furthermore, the need to understand historical context is central to knowing how evaluations of experience change over time. The value of context is based on its ability to influence the exchange of resources and the subsequent value derived and determined.

Prior research related to S-D logic and value co-creation indicates that value can be conceptualized as the viability of a system (e.g., Vargo et al. 2008). However, the viability of a system may not be the same as phenomenological value—that which is derived and determined through evaluation of an experience in a particular context. That is, perhaps there are different “types” of value that should be considered (e.g., Penalozza and Mish 2011). Views on value do not always align in service systems, a situation that can lead to conflict. The exchange of resources may or may not lead to a positive evaluation of an experience, and a positive evaluation of an experience may or may not lead to increasing the viability of a system. In this chapter, we have focused on the conceptualization of value-in-context, based on the need to study phenomenological value derived and determined through a specific, but extended context. Although phenomenological value may differ from other “types” of value, this does not mean that these different types of value are not related. This is because phenomenological value contributes to the creation of context by influencing the actions and interactions of multiple actors over time. Misalignment across views on value can be seen as a problem, but it can also be seen as an opportunity for developing novel solutions (i.e., innovation). Understanding the complexity of context and its relationship to value and value creation (Akaka et al. 2013, 2015) can potentially help guide further studies on identifying different types of value within service systems.

By considering how phenomenological value is created across multiple viewpoints organizations can account for the needs of individual customers and individual employees within the context of a service encounter. Drawing on multiple perspectives of phenomenological value, service encounters as well as service systems (e.g., smart cities) can be designed and developed to enhance the experience of both sides of exchange. Although phenomenological value is determined through ‘lived experience’ and subsequent reflection, the consideration of multiple views on value in designing a particular service encounter (or service system) can help to co-create value for multiple stakeholders. Zooming out and moving between levels of context enables the consideration of multiple views on value, which can potentially contribute to the viability of the overall system. In other words, if value propositions can be designed to balance the exchange value (i.e., sacrifice versus benefits) derived and determined by various individuals, the value created may extend through the wider service system. In the case of urban transportation in smart cities, the phenomenological value for users and service providers at the micro-level will be directly related to the sustainability of the service system as a whole. If no one wants to provide or benefit from micro-level services provided, the long-term viability of the macro-level ecosystem will be questionable, as was seen in the transitions from rowing boats to motor cars as a means of individual transport in London.

When considering value, context is often ignored or excluded by design and by the researcher's measurement instruments. For example, if we are interested in transport we may consider car journeys. Counting cars and noting their direction would give us information of volume and flow and may inform us as to the use of the road and we may identify repeat users from the data. However, we would not know where individuals were going, or crucially why. Standing by a roadside we may also take pictures of cars passing. The images would provide us with details of the vehicles and we can perhaps see the number of occupants. We may get contextual information if we can see weather conditions, but the data in a photograph would also make the cars appear stationary; the instrument removes some of the context—movement. From the data described we could not understand the value proposition of the individual in relation to their journey. To address macro issues of transport need and pollution, we need to begin by understanding the micro situation, 'why do people travel?' Then can then zoom out across different levels of context to gain a deeper understanding of the extended context that frames an exchange or experience (Akaka et al. 2015). Different levels of analysis require different instruments to capture data to address 'why?', 'who?', 'what?', and 'how?' questions.

Co-creation of value in context is a complicated theoretical proposition that is embedded within SD Logic, distant from practice, and it is difficult to identify how and when it occurs (Kolcaba 2001; Hunt 2002). As depicted in the figures above, value-in-context consists of multiple levels and forms of context, as well as dimensions of value making operationalization and measurement of value-in-context difficult. Thus, in order to gain a comprehensive understanding of value-in-context, multiple methods are required (Parry et al. 2017), that may include, but are not limited to, survey, experiment, case studies, interviews, textual analysis, ethnography, sensor data analysis. There are significant challenges, as measurement methods are based upon differing ontological assumptions, making interpretation difficult and potentially invalidating comparisons between findings.

The broad view of value-in-context proposed in this chapter draws attention to the need for understanding the relationship between different levels of context and varying views on value. A multi-level perspective can help to develop novel and compelling value propositions that can potentially increase value in exchange, use and context. Examining different perspectives can also help researchers to focus on exchange, social and cultural contexts that foster innovative norms and drive the creation of new forms of value and markets. Further developing the conceptualization of value-in-context (Akaka et al. 2013, 2015) helps to fulfill the promise of service science to "provide a foundation for creating lasting improvements to service systems" (Spohrer et al. 2007, p. 76). Future research can empirically investigate specific relationships between nested contexts and the how diverse views on value might be reconciled through the development of new value propositions.

References

- Akaka, M. A., & Chandler, J. D. (2011). Roles as resources: A social roles perspective of change in value networks. *Marketing Theory*, 11(3), 243-260.
- Akaka, M. A., Vargo, S. L., & Lusch, R. F. (2013). The complexity of context: a service ecosystems approach for international marketing. *Journal of Marketing Research*, 21(4), 1-20.
- Akaka, M. A., Schau, H. J., & Vargo, S. L. (2015). The co-creation of value-in-cultural-context. In *Consumer culture theory* (pp. 265-284). Emerald Group Publishing Limited.
- Akaka, M. A., Corsaro, D., Kelleher, C., Maglio, P. P., Seo, Y., Lusch, R. F., & Vargo, S. L. (2014). The role of symbols in value cocreation. *Marketing Theory*, 14(3), 311-326.
- Akaka, M. A., Vargo, S. L., & Schau, H. J. (2015). The context of experience. *Journal of Service Management*, 26(2), 206-223.
- Arnould, E. J., & Thompson, C. J. (2005). Consumer culture theory (CCT): Twenty years of research. *Journal of consumer research*, 31(4), 868-882.
- Batty, M., Axhausen, K.W., Giannotti, F., Pozdnoukhov, A., Bazzani, A., Wachowicz, M., Ouzounis, G. and Portugali, Y. (2012) "Smart Cities of the future", The European Physical Journal Special Topics (2012) Vol 214, No. 1., pp 481-518
- Beesley, M.E. 'Regulation of Taxis', *The Economic Journal*, 83, 329 (1973), pp. 150-172.
- Beinhocker, E. D. (2006). *The origin of wealth: Evolution, complexity, and the radical remaking of economics*. Harvard Business Press.
- Berry, L. L., Carbone, L. P., & Haeckel, S. H. (2002). Managing the total customer experience. *MIT Sloan management review*, 43(3), 85.
- Caragliu, A., Del Bo, C., Nijkamp, P. (2011) "Smart Cities in Europe", *Journal of Urban Technology*, Vol. 18 No.2, pp.65-82
- Chandler, J. D., & Vargo, S. L. (2011). Contextualization and value-in-context: How context frames exchange. *Marketing Theory*, 11(1), 35-49.
- Davies, B., Barron, S. and Harris, K. (1999), "Observable oral participation in the servuction system: toward a content and process model", *Journal of Business Research*, Vol. 44 No. 1, 47-53.
- Dourish, P., & Bell, G. (2011). *Divining a digital future: Mess and mythology in ubiquitous computing*. Cambridge, MA: The MIT Press.
- Edvardsson, B., Tronvoll, B., & Gruber, T. (2011). Expanding understanding of service exchange and value co-creation: a social construction approach. *Journal of the Academy of Marketing Science*, 39(2), 327-339.
- Gadamer HG. 2004. *Truth and method*. London: Continuum.
- Heidegger, M. (1962). Being and time (J. Macquarrie & E. Robinson, Trans.). New York: Harper & Row. (Original work published 1927)
- Hunt, S.D. (2002), *Foundations of marketing theory: Toward a general theory of marketing*, ME Sharpe.
- Husserl, E. (1939). Experience and judgement. 1973 [1939], J. S. Churchill & K. Ameriks (Trans.). London: Routledge.
- Kline, Stephen J. (1985), "Innovation is Not a Linear Process," *Research Management*, Vol. 28, No. 6, pp. 36-45.
- Kolcaba, K. (2001), "Evolution of the mid range theory of comfort for outcomes research", *Nursing outlook*, Vol. 49 No. 2, pp. 86-92.
- Laverty, S. M. (2003). Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations. *International Journal of Qualitative Methods*, 2 (3). Article 3. Retrieved August 11th 2016: https://sites.ualberta.ca/~iiqm/backissues/2_3final/pdf/laverty.pdf
- Maglio, P. P., & Spohrer, J. (2008). Fundamentals of service science. *Journal of the Academy of Marketing Science*, 36(1), 18-20.

- Ng, I. C., & Smith, L. A. (2012). An integrative framework of value. In *Special issue—Toward a better understanding of the role of value in markets and marketing* (pp. 207-243). Emerald Group Publishing Limited.
- M. Ota, H. Vo, C. Silva and J. Freire, “A scalable approach for data-driven taxi ride-sharing simulation,” *2015 I.E. International Conference on Big Data (Big Data)*, Santa Clara, CA, 2015, pp. 888-897. doi: <https://doi.org/10.1109/BigData.2015.7363837>
- Parry, G., Akaka, M.A., Brodie, R., Fehrer, J., Godsiff, P., Ma, X., Polese, F., Smith, M., Wakenshaw, S. (2017) “Value-in-Context: Towards Service Dominant Logic Informed Midrange Theory”, *Journal of Service Management – at review*
- Parry, G., Brax, S.A., Maull, R., Ng, I. (2016) “Visibility of consumer context: improving reverse supply with internet of things data”, *Supply Chain Management: An International Journal*, Vol. 21 Iss: 2, pp.228 - 244
- Penaloza, L., & Mish, J. (2011). The nature and processes of market co-creation in triple bottom line firms: Leveraging insights from consumer culture theory and service dominant logic. *Marketing Theory*, 11(1), 9-34.
- Penrose Edith T. (1959) *The Theory of the Growth of the Firm*, Oxford: Blackwell
- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of interactive marketing*, 18(3), 5-14.
- Smith, A. (1776). *The wealth of nations*. New York: *The Modern Library*.
- Surprenant, C. F., & Solomon, M. R. (1987). Predictability and personalization in the service encounter. *the Journal of Marketing*, 86-96.
- Solomon, M. R., Surprenant, C., Czepiel, J. A., & Gutman, E. G. (1985). A role theory perspective on dyadic interactions: the service encounter. *The Journal of Marketing*, 99-111.
- Spohrer, J., Maglio, P. P., Bailey, J., & Gruhl, D. (2007). Steps toward a science of service systems. *Computer*, 40(1).
- Thompson, C. J., Locander, W. B., & Pollio, H. R. (1990). The lived meaning of free choice: An existential-phenomenological description of everyday consumer experiences of contemporary married women. *Journal of consumer research*, 17(3), 346-361.
- Vargo, S. L., & Akaka, M. A. (2012). Value cocreation and service systems (re) formation: A service ecosystems view. *Service Science*, 4(3), 207-217.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of marketing*, 68(1), 1-17.
- Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: continuing the evolution. *Journal of the Academy of marketing Science*, 36(1), 1-10.
- Vargo, S. L., & Lusch, R. F. (2011). It's all B2B... and beyond: Toward a systems perspective of the market. *Industrial marketing management*, 40(2), 181-187.
- Vargo, Stephen L., Robert F. Lusch, and Melissa Archpru Akaka. “Advancing service science with service-dominant logic.” *Handbook of service science* (2010): 133-156.
- Vargo, S. L., & Lusch, R. F. (2016). Institutions and axioms: an extension and update of service-dominant logic. *Journal of the Academy of Marketing Science*, 44(1), 5-23.
- Vargo, S. L., Maglio, P. P., & Akaka, M. A. (2008). On value and value co-creation: A service systems and service logic perspective. *European management journal*, 26(3), 145-152.
- Venkatesh, A., Penaloza, L., & Firat, A. F. (2006). The market as a sign system and the logic of the market. *The service-dominant logic of marketing: Dialog, debate, and directions*, 251-265.
- Wang J., Wood Z., Worboys M. (2016) Conflict in Pedestrian Networks. In: Sarjakoski T., Santos M., Sarjakoski L. (eds) *Geospatial Data in a Changing World*. Lecture Notes in Geoinformation and Cartography. Springer, Cham
- Walker, J. L. (1995). Service encounter satisfaction: conceptualized. *Journal of services marketing*, 9(1), 5-14.
- Weber, R. H., & Weber, R. (2010). *Internet of Things: Legal perspectives*. Berlin: Springer.
- Wilk, R. (1995). Learning to be local in Belize: global systems of common difference. *Worlds apart: Modernity through the prism of the local*, 110-33.

- Wood, Z., Parry, G., Carruthers, J. and Rose, K. (2017) Assessing the impact of digital innovations in the London transportation network. Project Report. UWE Repository. Available from: <http://eprints.uwe.ac.uk/31047>
- Zeile, P., Resch, B., Loidl, M., Petutschnig, A. and Dörrzapf, L. (2016), "Urban Emotions and Cycling Experience—enriching traffic planning for cyclists with human sensor data", *Journal for Geographic Information Science*, Vol. 1, pp. 204–216.
- Zimmermann, Erich (1951) *World Resources and Industries*, New York: Harper & Bros., p. 15.

Melissa Archpru Akaka is Associate Professor of Marketing at the University of Denver. Her research investigates the cocreation of value in consumer cultures and consumption experiences as well as collaborative innovation and entrepreneurship in dynamic service ecosystems. Dr. Akaka's scholarly work has been published in a variety of academic journals, including *Journal of Service Research*, *Journal of International Marketing* and *Industrial Marketing Management*. Her work was recently recognized for being "highly cited" (in the top 1%) by Thompson and Reuters.

Glenn Parry is Professor of Strategy and Operations Management at Bristol Business School, University of the West of England. He is primarily interested in what 'Good' means for an organisation, exploring value as a measurement of 'goodness'. He works in partnership with organisations to develop creative solutions to business challenges. Current work includes EPSRC projects: *Optimising Me Manufacturing Systems*, developing an on-the-body healthcare therapeutics microfactory; *Trans-Disciplinary Design-Engineers* developing individuals to realise the potential of current and future manufacturing processes; and the Hub of All things [hubofallthings.com], developing business models that respect personal data and provide information to firms.