

Bringing Service Design to Service Sciences, Management and Engineering

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ABSTRACT

Service design is defined as applying design methods and principles to the design of services. Service design is complimentary to conventional service development approaches and as such should become a contributor to Services Sciences, Management and Engineering (SSME). Two examples of the unique contribution of methods that Service Design offers are described.

Introduction

Service design is often described as the outside-in perspective on service development [14]. More precisely, service design is concerned with systematically applying design methods and principles to the design of services. Just as Industrial Management and Engineering depends on Industrial Design, the service industry needs to develop, integrate and appropriate design as a central competence.

What is Service design?

Service design is often described as the outside-in perspective on service development [14]. More precisely, service design is concerned with systematically applying design methodology and principles to the design of services. Service design as a field has a history almost as old as Interaction Design [7, 15, 14]. It began in earnest in the 90's and was positioned relative to industrial design. Service design from our perspective assumes the customer/user as the starting point or lens into a specific service and through the use of creative, human-centered and user-participatory methods models how the service can be performed. At the same time, service design integrates the possibilities and means to perform a service with the desired qualities, within the economic and strategic intent of an organization. Thus, in service design, collaborators “visualize, express and choreograph what other people can't see, envisage solutions that do not yet exist, observe and interpret needs and behaviors and transform them into possible service futures, and express and evaluate, in the language of experiences, the quality of design” [18].

As a discipline it should not be viewed in isolation, but as complementary to service development, management, operations and marketing [6, 14, 5].

Service design activities appear throughout a service development process (see e.g. [5, 9, 17]). In our approach to designing for service innovation we integrate these activities across a service development process that includes exploratory, generative, and evaluative research that spans the entire design process—from discovery to release [8]. The process differs from conventional approaches (see [2, 3, 11, 22]) in that instead of starting by defining strategy—we start with exploratory or immersive research to lead to opportunities for innovation in strategy. Another difference is that, service design as a design discipline (see e.g., [14, 16]), is not singularly focused on designing processes—though process analysis is one dimension of our approach to designing for service. Service design contributes to service development in areas such as user orientation, contextualization, and design as a strategic instrument [5, 12, 20, 4, 10].

The human-centered approach to designing for service innovation draws on a variety of methods and ultimately depicts through enactment and prototyping how the service can be performed, and with what qualities [18]. Service design in this sense, aims to create services that are useful, usable, desirable, efficient and effective.

Bringing Design to Service

In the text that follows we describe two high-level categories of methods that can contribute to the advancement of SSME and drawn from our experience in service design and innovation.

Human-centered methods

In other design traditions, such as architecture, and interaction design, human-centered methodology has been a central part of research and practice since the 1980's (see e.g. [10]). Our approach to service design builds on this practice as we strive to involve customers in all stages of the design process.

A human-centered approach begins with the person; with her goals, what she does, what she wants to achieve, what she experiences. An important attribute of human-centered methodology is that the overall process is iterative. That is, we frequently evaluate service design solutions and ideas with the customers and other stakeholders, and their input during these meetings heavily influences everything from incremental changes to breakthrough innovations. Two particularly useful methods for centering on the person are documenting the customer journey and using genre as a lens for exploring expectations.

Documenting customer journeys

To get an understanding of the service experience it is crucial to “walk in the customer’s shoes”—to understand and experience the customer journey—just the way a user would. There are a variety of techniques for documenting the journey such as process mapping, shadowing, and video ethnography, but what is most important is to understand all the activities and constraints involved, and to chart out options that might be needed to be tried later. Gathering quotes from actual customers about their service experience is one way to highlight problems, opportunities and what people value with a service. For example, in a museum where a lot of the visitors are children, one should walk through the museum at the height of a child. When designing a parking service, one needs to experience the signage to get to the facility as well as the parking meter, or when going through the process of purchasing a book online, understanding delivery at the door can be as important to the experiences as the electronic shopping cart.

Using genres as a lens to expectations

Understanding the role that people’s expectations play in approaching a service is an important topic in service research [21]. Working with genres as a framework for design is a powerful technique [13]. Simplified, a genre can be described as an implicit contract between producer and consumer, directing both the production process and the expectations of the consumer. For example, in the US there are several genres in health care delivery, from local clinics to large medical conglomerates. Explicitly exploring what evidence communicates what attributes within and across the genre helps in setting expectations at the service encounter. When we can identify clear genres and the components that differentiate between genres and sub-genres, it provides a base-line and a model of expectations and efficiency in service design.

Modeling, prototyping and enacting methods

Visualizations or models, prototyping, and enactments are crucial to successful service design. Modeling, prototyping and enacting are closely related to activities in service development, such as documenting the environment or servicescape [1], blueprinting [19], and defining touchpoints [21]. Modeling, prototyping and enacting in service design draws on the broader arts (such as Drama) as well as communication, industrial and interaction design.

Modeling stakeholders

In the service design process, stakeholders are modeled in two ways. First, at the abstract level a mapping or diagram of all stakeholders and their influence is created in order to understand the relationships between providers, partners, users and peripheral influencers to the service. Secondly, using this mapping and based real-world observation, personas are created to capture and communicate different goal-oriented customer categories and

to maintain a deep connection the activities of the service. The personas are then used to drive scenarios.

Modeling activities—the role of scenarios

Modeling what happens, how people act, in what order things happen and coordination of backstage and front-stage activities can be done through scenarios. Story-boards are created as a narration, often in the form of comic strips, to describe the activities of a particular stakeholder (or persona) in the service process. In the generative stages of the design process, enabling users to illustrate, narrate and choreograph their ideal scenario, highlights solutions and design objectives and often leads to service innovation. When expressing their ideal scenario in this way, people embed the value they want from a service, at the same time they express how it will fit it into their activities, lifestyle, and fulfill their goals.

Prototyping

Prototyping in service encompasses the experience as well as the touchpoints. Prototypes can range from rough sketches of “moments of truth” [5], to full scale brick and mortar facilities. Creating cultural probes can also be effective in capturing a wider array of concerns from customers. For example, with a technology probe a customer provided with a white box to achieve her goals. In doing so she inscribes the service concept and behavior in the white box, and distinguishes between parts of the service concept that she believes can be performed through technology and parts that may need a human touchpoint.

Enacting

Working with dramaturgic methods allows designers and users to enact or perform service experiences before they have been established in an organization. By doing that, anomalies and alternative solutions can be found.

Letting users look at, try out and act out different suggestions for a solution provides input on details as well as overall design decisions. Artifacts used in the enactment are prototypes that invite comments from the participants. Artifacts used in enactments are often designed to deliberately provoke users, in order to assess specific aspects of design alternatives.

Conclusion

Based on the description of Service Design as a design discipline, it seems to be well fitted to drive and support the development of SSME. Service design is human-centered and participatory by nature; it brings unique methods and perspectives to service innovation as illustrated by the two examples explained above. The service design practitioner’s focus on the entire range from useful to effective, as well as a vision to drive the development of

technology that creates value together with people; make it invaluable in the advancement of SSME.

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