

## **Service Blueprinting: A Practical Technique for Service Innovation**

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# Service Blueprinting: A Practical Technique for Service Innovation

Mary Jo Bitner, Amy L. Ostrom, Felicia N. Morgan

Services represent approximately 80 percent of the U.S. GDP and a growing percentage of the GDPs of countries around the world. Companies, governments, and universities around the world have recently awakened to the realization that services dominate global economies and economic growth.<sup>1</sup> Yet, in practice, innovation in services is less disciplined and less creative than in the manufacturing and technology sectors.<sup>2</sup> As anecdotal evidence of this, we point to a 2007 *Business Week* cover story featuring the world's most innovative companies.<sup>3</sup> While *Business Week's* top twenty five most innovative companies includes a number of service businesses (e.g., Google, Walt Disney, Wal-Mart, Starbucks, Target, Amazon and E-Bay), the number of innovators is not nearly reflective of the size of the service sector. A recent comprehensive review of the academic literature on product innovation also reveals little explicit coverage of research on service innovation.<sup>4</sup>

There are many reasons for this historic lack of rigorous attention to the unique aspects of service innovation. Some of these reasons are rooted in the remnants of the industrial revolution and the habitual fascination with tangible products and hard technologies as a source of product innovation, and an underlying belief that service(s) have no tangible value.<sup>5</sup> Beyond these historic reasons, however, the lack of widespread and disciplined innovation in services derives at least partially from the nature of services themselves. Services are process and experience based and in many cases dependent on human, interpersonal delivery systems, suggesting a need to focus on process, delivery, and experience, innovation. Yet, traditional product innovation tools emphasize the design of tangible, relatively static products with physical properties, Service(s) are fluid, dynamic, and frequently co-produced in real time by customers, employees, and technology, often with few static physical properties. Thus, many of the invention protocols and prototype design techniques used for physical goods, hard technologies, and software do not work well for human and interactive services, or at least they demand significant adaptation to address service innovation challenges.<sup>6</sup>

Along with the awakening to the domination of services in the world's economies, there is a growing emphasis in business practice on creating meaningful, memorable customer experiences.<sup>7</sup> The fundamental premise is that firms can no longer compete solely on providing superior value through their core products, but rather they must move into the realm of customer experience management, creating long-term, emotional bonds with their customers through the co-creation of memorable experiences potentially involving a constellation of goods and services. The importance of customer experience management is not only being touted in consumer markets, but also in business-to-business contexts where research shows meaningful customer experiences and the resulting emotional bonds between customers and suppliers are more important than rational motivations in creating customer loyalty.<sup>8</sup>

The compelling need for service innovation in the world's economies and the current focus of many businesses on creating value through customer experiences suggest a need for innovative methods, techniques, and R&D practices for service(s). The purpose of this article is to describe one such technique—service blueprinting—a customer-focused approach for service innovation and service improvement.<sup>9</sup> While the rudiments of service blueprinting were introduced two decades ago, the method has evolved significantly as a useful approach for addressing many of the challenges in services design and innovation and is particularly amenable to customer experience design. In comparison to other process-oriented design techniques and tools, service blueprints are first and foremost customer-focused, allowing firms to visualize the service processes, points of customer contact, and the physical evidence associated with their services from their customers' perspective. Blueprints also illuminate and connect the underlying support processes throughout the organization that drive and support customer-focused service execution.

Through case study examples largely based on our own research, teaching, and extensive work with companies, we show how service blueprinting has been incorporated as a highly effective and very adaptable technique for service innovation, quality improvement, customer experience design, and strategic change focused around customers. Since all businesses are service businesses at some level, the article has implications for companies and organizations across industries. Because blueprints can be used strategically or at a very micro-implementation level, managers at all levels find it very useful. In addition to its direct applications to business practice, service blueprinting suggests avenues for cross-disciplinary research within academics and in academic-business partnerships.

The article proceeds as follows. First we present conceptual and managerially relevant issues that serve as foundations as well as motivations for why blueprinting is so useful in the current competitive environment. Second we describe the foundational components of service blueprints. We then provide data in the form of five case studies showing the versatility and usefulness of service blueprints across industry and application contexts. We conclude with a discussion of general insights for service innovation practice and for cross-disciplinary research on service innovation.

## Service Innovation Challenges

There are a number of service characteristics and related management challenges that underlie the need for an innovation technique like service blueprinting. Before describing them we should be clear as to what we mean by services since the term has so many varied and broad uses. When we use the term “service” or “services” we are referring to service offerings provided for and/or co-created with customers such as professional services, retail, financial, telecommunication, healthcare, and many others. We also include service(s) that are offered in conjunction with goods such as training and network support services in a technology company and even service that is derived from a tangible product such as the service embedded within an onboard GPS system in a car. What all of these services have in common is an interface with an actual customer whether through technology or interpersonal interactions.

### Services as Processes

One of the most distinctive characteristics of services is their *process* nature.<sup>10</sup> Unlike physical goods, services are dynamic, unfolding over a period of time through a sequence or constellation of events and steps. The service process can be viewed as a chain or constellation of activities that allow the service to function effectively.<sup>11</sup> For example, a professional consulting service is represented by events occurring between business partners, beginning with learning about each other, developing a service agreement, a series of meetings, project deadlines, and deliverables. This service could take place over a short time frame or it could take place over several years. To function effectively for the client, the entire sequence of consulting activities should be coordinated and managed as a whole, over time, with emphasis on including the resources and steps that produce value for the customer. An analysis of the client’s consumption and co-creation process, interactions with the provider firm, and the underlying support systems is essential to managing this chain of service activities. While many of the essential activities that support the consulting service are invisible to the client, understanding that fact and how these activities link to the client is essential to ensuring the value proposition.

Understanding how customers evaluate the service process, and how those judgments evolve, is also critical. Some research suggests that it is the summation of all the steps, or service encounters, within a service process that is evaluated by the customer and not just individual interactions with service providers.<sup>12</sup> Other research examines the distinct events (i.e., service encounters) associated with a service process that are evaluated along unique attribute dimensions.<sup>13</sup> Still others propose that the character of the process itself may play a greater role than the actual outcome in determining overall evaluations.<sup>14</sup> Developing a deeper understanding of the way customers experience and evaluate service processes is but

one of many challenges faced by firms that undertake the design, delivery, and documentation of a service offering. Service blueprinting is a flexible approach that helps managers with the challenges of service process design and analysis. It is a powerful technique that can be used to depict a service at multiple levels of analysis. That is, service blueprinting can facilitate the detailed refinement of a single step in the customer process as well as the creation of a comprehensive, visual overview of an entire service process.

### Services as Customer Experiences

In recent years the business world and trade press have become enamored of the notion of the “customer experience.” Joseph Pine and James Gilmore advanced the idea that we are in an “experience economy,” in which the orchestration of memorable, even “transformational” events for customers is the key to differentiating one’s offering from those of competitors and escaping commoditization in an increasingly crowded competitive marketplace.<sup>15</sup> Although the terms “customer experience,” and “service experience” are frequently mentioned in the business press without explicit definitions, a *Harvard Business Review* article defines a customer experience as “the internal and subjective response customers have to any direct or indirect contact with a company.”<sup>16</sup> Others have conceptualized a service experience as “the cognitive, affective, and behavioral reactions associated with a specific service event.”<sup>17</sup> This definition implies a time-bounded progression of related interactions involving the customer and other people and/or technology in the production and consumption of a service.

According to Lewis Carbone, a pioneer in customer experience engineering, customers cannot help but have experiences and all services create experiences.<sup>18</sup> A main issue for managers is whether the company has the capability to systematically manage that experience, or whether it is simply left to chance. Effectively designing and managing the customer experience requires presenting a series of clues that function holistically to meet or exceed customer expectations. The total customer experience as influenced by these clues evokes perceptions of service quality and ultimately value along with perceptions of the overall brand itself, which in turn, influence preferences and loyalty.<sup>19</sup> Delivering customer value through distinctive, memorable service experiences requires a cross-functional perspective. All parts of the organization should be focused on the common goal of creating an integrated, memorable, and favorable customer experience. Those companies that approach customer experience management with a clear vision of the design and development process are more likely to achieve improved customer and organizational outcomes.<sup>20</sup> Service blueprints allow all members of the organization to visualize an entire service and its underlying support processes, providing common ground from which critical points of customer contact, physical evidence, and other key functional and emotional experience clues can be orchestrated.

### Service Development and Design

Organizations that are most successful in providing new services keep their service development processes from being *ad hoc*.<sup>21</sup> In other words, they prepare and move systematically (and often iteratively) through a set of planned stages from the establishment of clear objectives, to idea generation, to concept development, service design, prototyping, service launch, and customer feedback. Service design requires an understanding of the customer outcome and customer process, the way the customer experience unfolds over time through interactions at many different touchpoints. A well designed service that is pleasing to experience can provide the firm with a key point of differentiation from competitors. A smoothly delivered service with a positive outcome is more likely to result in favorable service quality and brand image evaluations, which both have influence on customer loyalty. Recurrent service quality problems are often the result of poor design.<sup>22</sup>

Because services are intangible, variable, and delivered over time and space, people frequently resort to using words alone to specify them, resulting in oversimplification and incompleteness.<sup>23</sup> Further, there are often biases present in both the specification and interpretation of the service concept. In fact, the early stages of new product development often referred to as the “fuzzy front end” are particularly

problematic for service innovation because they typically involve imprecise processes and impromptu decision-making. These stages are often characterized as having low levels of formalization, yet they are critical for what follows. What is needed is a means of presenting the activities, relationships, and interdependencies of a service process in an objective and precise manner such that it is methodologically structured, but flexible enough to allow creativity to flow.

As the new service development process progresses toward actual design and implementation, the initial service idea must be made more concrete so that it can be presented as a developed concept, or even rough prototype, to customers and employees. Roles and responsibilities of customers and service providers must be clarified. Required are detailed descriptions of the service process with respect to equipment, quality, and cost factors. It is at this stage that differing opinions as to just how the idea should be translated into an actual service often emerge. A key to success at this point is the ability to describe service process characteristics and depict them so that employees, customers, and managers alike can know in concrete terms what the service involves and understand their respective roles in its delivery or co-creation. Because service blueprinting results in a visual rendering of the service process and underlying organizational structure that everyone can see, it is highly useful in the concept development stage of service development.

During the final service design stages, the service concept is likely to be refined over a series of iterations to the point at which a final, comprehensive blueprint can be produced. All relevant parties should be involved in this process, including in many cases customers or clients. The ultimate task is for each functional area involved in delivering the service to translate the final blueprint into detailed implementation plans to support their activities within the blueprint. Departmental sub-processes can be magnified, rendered in fine detail, and blueprinted on their own as sub-documents of the main blueprint. The main blueprint forms a common point of reference for all parties concerned with achieving a successful launch of the service. It also serves as a focal point for later refinements or last-minute changes.

## Blueprinting Evolution and Components

### Evolution of Service Blueprinting

Service blueprinting was initially introduced as a process control technique for services that offered several advantages: it was more precise than verbal definitions; it could help solve problems preemptively; and it was able to identify failure points in a service operation.<sup>24</sup> Just as firms have evolved to become more customer-focused, so has service blueprinting. One early adaptation was the clarification of service blueprinting as a process for plotting the customer process against organizational structure.<sup>25</sup> Service blueprinting was further developed to distinguish between onstage and backstage activities. These key components still form the basis of the technique and its most important feature, that of illuminating the customer's role in the service process.<sup>26</sup> In addition, it provides an overview so that employees and internal units can relate what they do to the entire, integrated service system. Blueprints also help to reinforce a customer-orientation among employees as well as clarify interfaces across departmental lines.

Service blueprinting shares similarities with other process modeling approaches in that it 1) is a visual notation for depicting business processes via symbols that represent actors and activities, 2) can be used to represent high-level overviews of conceptual processes or details of particular support or sub-processes, and 3) will accommodate links to parallel and sub-process documents and diagrams via other more internally-focused process modeling tools and languages such as BPMN (Business Process Modeling Notation) and UML (Unified Modeling Language). However, service blueprinting is not as complex or as formal as some business process modeling tools such as UML.<sup>27</sup> Service blueprints are relatively simple and their graphical representations are easy for all stakeholders involved – customers, managers, front-line employees – to learn, use, and even modify to meet a particular innovation's

requirements. Service blueprinting upholds the focus of a service innovation on the **human-to-human** and **human-to-technology interfaces at the firm boundaries**, rather than at the software engine level, allowing service designers to drill down into the firm without losing the connection to customer actions and process.

For over a decade, we have worked with companies to teach and develop the service blueprinting technique, evolving its contributions and applications to the levels we describe here. We have assisted companies in realizing significant results through service blueprinting including developing brand new services, improving existing services, and facilitating cross-functional communication in support of customer-focused solutions.

### **Components of Service Blueprints**

There are five components of a typical service blueprint (See Figure 1 for a diagram of key components):<sup>28</sup>

- Customer Actions,
- Onstage/Visible Contact Employee Actions,
- Backstage/Invisible Contact Employee Actions,
- Support Processes, and
- Physical Evidence.

“Customer actions” include all of the steps that customers take as part of the service delivery process. Customer actions are depicted chronologically across the top of the blueprint. What makes blueprinting different from other flowcharting approaches is that the actions of the customer are central to the creation of the blueprint, and as such they are typically laid out first so that all other activities can be seen as supporting the value proposition offered to or co-created with the customer. The next critical component is the “onstage/visible contact employee actions,” separated from the customer by the line of interaction. Those actions of frontline contact employees that occur as part of a face-to-face encounter are depicted as onstage contact employee actions. Every time the line of interaction is crossed via a link from the customer to a contact employee (or company self-service technology, etc.), a moment of truth has occurred. The next significant component of the blueprint is the “backstage/invisible contact employee actions,” separated from the onstage actions by the very important line of visibility. Everything that appears above the line of visibility is seen by the customer, while everything below it is invisible. Below the line of visibility, all of the other contact employee actions are described, both those that involve non-visible interaction with customers (e.g., telephone calls) as well as any other activities that contact employees do in order to prepare to serve customers or that are part of their role responsibilities. The fourth critical component of the blueprint is “support processes” separated from contact employees by the internal line of interaction. These are all of the activities carried out by individuals and units within the company who are not contact employees but that need to happen in order for the service to be delivered. Vertical lines from the support area connecting with other areas of the blueprint show the inter-functional connections and support that are essential to delivering the service to the final customer. Finally, for each customer action, and every moment of truth, the physical evidence that customers come in contact with is described at the very top of the blueprint. These are all the tangibles that customers are exposed to that can influence their quality perceptions.

## Building a Blueprint

When building a blueprint, the first step is to clearly articulate the service process or sub-process to be blueprinted. Because companies often modify service processes to fit the needs and wants of different target customers (e.g., check in process for an airline frequent flyer or first class passenger versus other passengers), it is important to specify which segment of customers is the focus of the blueprint. Once this has been decided, the actions of customers should be delineated first because this component serves as the foundation for all other elements of the blueprint. At times, this can be more challenging than anticipated. Questions such as “When does the service start and stop from the customer’s point of view?” tend to generate considerable discussion. After that has been established, the contact employee actions, both onstage and backstage, can be delineated, followed by support processes. At this point, links can be added that connect the customer to contact employee activities and to needed support functions. Physical evidence is typically the last component added to the blueprint. Blueprints are ideally developed by cross-functional teams, possibly even involving customers.

Figure 2 is an example of a blueprint for a one-night hotel stay.<sup>29</sup> This is considered to be a concept blueprint (i.e., it depicts only the basic steps in the process). If desired, additional boxes could be added to show each of the underlying steps in more detail. In fact, a sub process diagram could be constructed for any stage in the internal support system that would lay it out in as much detail as desired. In these cases it might even be useful to bring in other process diagramming tools to detail the underlying systems. The level of detail depicted in the blueprint is a function of the purpose for which it is being created. We have seen blueprints that capture the basics of a complex service in a few boxes and other blueprints that stretch around an entire room.

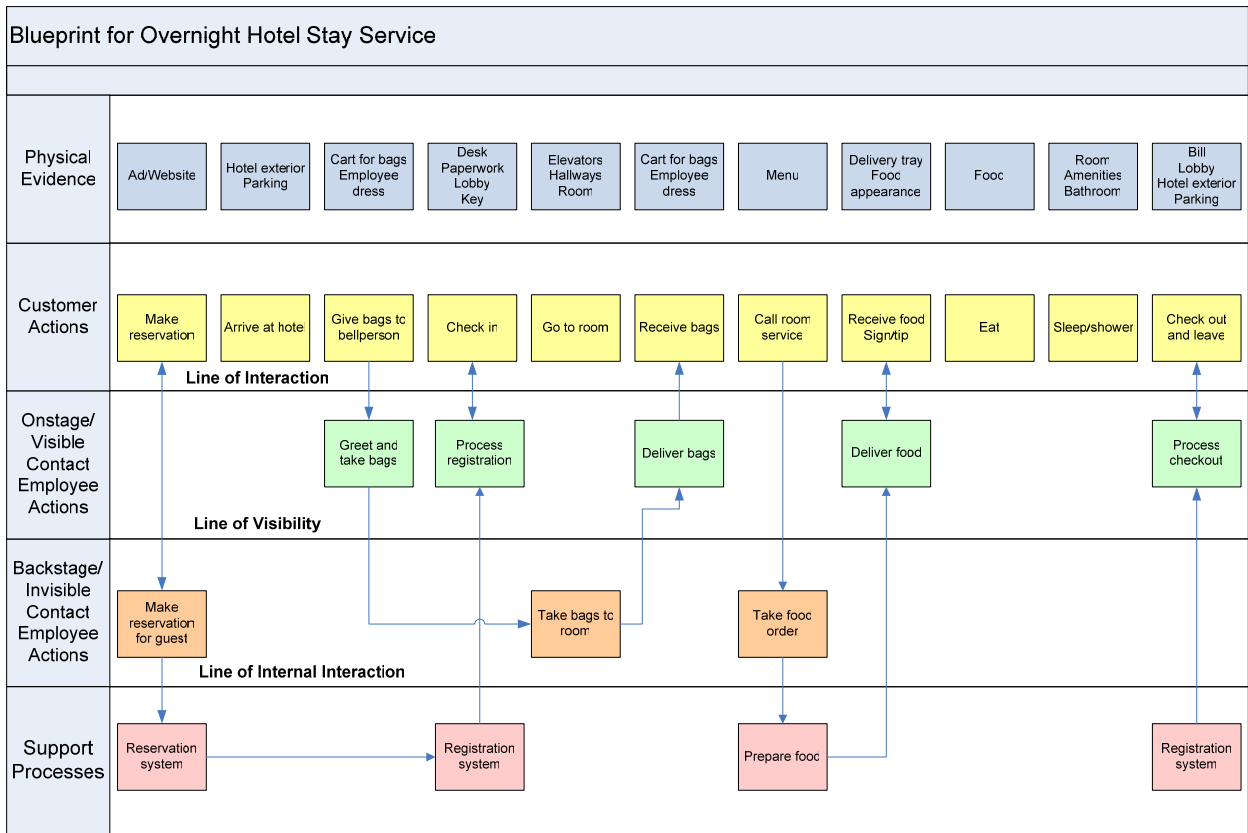
The concept blueprint in Figure 2 clearly shows the actions of hotel customers, both what they do that involves employees and hence are moments of truth as well as other actions (e.g., sleeping, eating food from room service) that customers engage in as part of the service delivery process. The goal is to capture the entire customer service experience from the customer’s point of view in the blueprint. Front desk employees who check in customers are performing an onstage action as are employees who deliver room service to customers. Employees who deliver room service might also engage in backstage activities such as helping prepare the food and arranging the tray prior to delivering it to customers. There are also important support processes including the reservation and registration systems that affect the customer experience. Although presented only in a brief conceptual form here, any support processes that impact the customer experience could be described in detail as noted earlier. As shown in the blueprint, hotels clearly have considerable physical evidence that customers are exposed to that can impact their quality perceptions.

Figure 1

Service Blueprint Components	
Physical Evidence	
Customer Actions	<b>Line of Interaction</b>
Onstage/ Visible Contact Employee Actions	<b>Line of Visibility</b>
Backstage/ Invisible Contact Employee Actions	<b>Line of Internal Interaction</b>
Support Processes	



Figure 2



## Blueprinting in Practice

In our experiences working with companies on service blueprinting, we have seen the technique used in many different ways. One of blueprinting's greatest strengths is its versatility and flexibility. In fact, part of the blueprinting workshop that we routinely teach involves brainstorming its uses within the participants' companies. This typically generates many creative ideas and adaptations. We have also seen many spontaneous "ah hahs" as workshop participants immediately recognize shortcomings or solutions to issues with their own services just as a result of learning the technique, even before they actually blueprint their own services. For a guide to how we teach a blueprinting workshop, see Exhibit 1.

Here we present data in the form of several selected case studies highlighting some examples of how we have assisted firms in incorporating blueprinting into their innovation, service improvement, and customer experience design practices. We report how and why blueprinting was used in each case. We also report important outcomes that resulted from blueprinting in terms of service improvements, increased customer satisfaction and loyalty, efficiencies and cost-savings, and/or innovative revenue-producing opportunities. In all of the cases reported here we either facilitated the blueprinting work ourselves or trained the individuals who did the work. We have chosen these cases as they represent a broad array of blueprinting objectives and outcomes, illustrating the versatility of the technique.

## Exhibit 1

### Applying Blueprinting in Your Organization A Workshop Guide

To date, we have taught blueprinting via custom workshops for numerous companies and in executive education programs to thousands of executives around the world. Based on our experience, we have developed a method for teaching blueprinting as well as identified some key considerations that should be kept in mind when undertaking a blueprinting initiative.

#### Teaching the Blueprinting Technique

Blueprinting is a powerful and highly flexible approach that can be used at any level of an organization. Once individuals understand how it works, they usually quickly identify areas where it can be applied and see its potential to transform business processes. After gathering together those interested in learning blueprinting, start with the following:

#### 1. Share blueprinting fundamentals

##### – Explain blueprinting and its importance

- Emphasize that given the intangible nature of services and their complexity, discussing them verbally can be challenging. Describe how blueprinting helps create a visual depiction of the service process that highlights the steps in the process, the points of contact that take place, and the physical evidence that exists, all from a customer's point of view.
  - Stress that blueprinting helps those within an organization identify failure points, areas for improvement, and innovation opportunities as well as opportunities to enhance profit. It gets participants "on the same page" in terms of how a service currently works or how a new service process might be designed.
- Walk through a generic blueprint
- Show participants a generic blueprint and describe each of the components (see Figure 1). It is also helpful to show participants a sample blueprint of a service so they can get an idea of what one looks like (see Figure 2).

#### 2. Blueprint a simple service

##### – Have participants learn the technique by blueprinting something simple

- It is best to have participants learn the technique by first blueprinting something other than their own service. Pick a straightforward service and provide a description for them to read to get them started. In our workshops, we have used a description of a river tubing service, a diet food delivery service, and a business cafeteria service.
- Have them work in teams to create the blueprint
- The power of blueprinting becomes evident when it is used in a group setting. We have participants learn the technique working in teams of four to ten people although we have found that smaller and larger groups can also work.
  - If there are multiple teams blueprinting a service, we have each one create a blueprint of the service and then share what was developed, on white boards, or by hanging their paper blueprints up so others can see them. We have one or two teams share their blueprints with the larger group. We then have participants compare and contrast the various blueprints that were developed.

#### 3. Brainstorm insights and uses of blueprinting

- Share insights about the blueprinting outcomes
- The blueprints that are created are rarely identical. It is useful to discuss what led groups to make different decisions regarding how the service was depicted.
- Share insights about the process of creating the blueprints
- After working in a team to create a blueprint, it is usually very clear to participants that it is the process of trying to create a blueprint that is so powerful. Participants typically have process-related questions that should be addressed. They often ask about the level of detail that is required, which is something that depends on the objective of the blueprint (e.g., a concept blueprint versus one depicting role responsibilities). The level of detail needed can be agreed on prior to blueprinting the company's own service processes.
- Brainstorm ideas for using blueprinting
- Once participants understand blueprinting and its potential, it is a great time to brainstorm how blueprinting can be used within the organization. At this point in the process, many "ah hahs" and creative ideas emerge spontaneously. Participants might identify ways to use the technique to improve internal processes (e.g., IBM and the San Francisco Giants) or services that are offered to external customers (e.g., Yellow Transportation and ARAMARK).

### **Applying Blueprinting in Practice**

Frequently our workshops extend to a second step of having participants blueprint one of their own services that they have determined in advance. If not, then the participants carry out this step on their own, in teams, back at their business locations. Here are the guidelines we recommend.

#### **1. Decide on the company's service or service process to be blueprinted and the objective**

Select the service or service process and the customer segment that will be the focus of the blueprint. Different segments of customers may receive service differently, which would necessitate that separate blueprints be developed. External or internal customer segments can be examined. Make sure everyone is clear on the goals of the blueprinting process. For a new service, it is likely to be to specify the desired service process whereas, for a currently offered service, it is often to blueprint **how the service is currently being offered**. However, at times, it may be useful to create what a desired service process might look like for a service that is already offered. Additionally, for some services, a goal might be to develop a very general concept blueprint that just highlights the key steps in the service process—in the early stages of a new service innovation for example. Alternatively, the goal might be to specify specific role responsibilities, which necessitates a very detailed blueprint.

#### **2. Determine who should be involved in the blueprinting process**

Some thought should also be given to who should be involved in the blueprinting process for a particular service. Ideally, representatives of all groups involved in the design, delivery, and support of the service, including in some cases the customer, should be involved. This provides the greatest opportunity to capture diverse perspectives concerning how a service currently is or a new service should be experienced by consumers and executed by the firm.

#### **3. Modify the blueprinting technique as appropriate**

In some circumstances, it makes sense to modify the traditional blueprint. For example, when blueprinting an Internet or kiosk-based service that does not have any onstage contact employee activities, it could be beneficial to remove the onstage contact employee action row and replace it with an onstage technology row that would capture how customers interact with the company's technology. Some services might require both an onstage contact employee activities row and an onstage technology row (e.g., an airline where customers check in via a self-service technology and also interact face to face with airline employees). Also special symbols that identify failure points, revenue generating or cost cutting opportunities, or places where service quality perceptions could be enhanced can be incorporated. Any modification that enables better assessment of a particular service (e.g., time to perform each step), and achievement of the blueprinting goals should be considered (e.g., as with Marie Stopes International Global Partnership). Its adaptability is one of the key strengths of the blueprinting technique.

#### **4. Map the service as it happens most of the time**

There are always idiosyncratic things that happen when providing a service but participants should focus on what typically occurs during the service process, at least initially. Once the typical service process is blueprinted, it can be compared to ideal or competitor blueprints, depending on the goals. In the case of a new service innovation, the initial blueprint can show how, ideally, the service will be experienced by the customer.

#### **5. Note disagreements to capture learning**

When blueprinting their own service, participants will often come across points of **disagreement** about how the service works and how it is delivered to customers. It is important to note these disagreements because they usually indicate problem areas within the service that are worth exploring. However, it is also important not to let the disagreements derail the process.

#### **6. Be sure customers remain the focus**

It is common for participants to get engrossed with the steps in the process that happen within the organization and to lose sight of the customer. It is important that the customer stays top of mind as the blueprint is being developed.

#### **7. Track insights that emerge for future action**

It is often just the act of trying to create a blueprint that leads to big insights that can improve a service. Be sure to note them as you move through the process so you can create action items to pursue once you have finished the blueprint.

#### **8. Develop recommendations and future actions based on blueprinting goals**

Once the process of blueprinting the service is substantially completed, recommendations for action can be compiled depending on the goals of the blueprinting exercise. If the purpose was to develop a new service innovation, then the next steps in evaluation of the service will follow. If the purpose was service improvement, then improvements will be developed, assessed, and monitored.

#### **9. If desired, create final blueprints for use within the organization**

In some companies and in some situations, as noted above, going through the blueprinting process itself is enough to gain important insights. At other times, companies want to create finished blueprints that then can be shared in the organization and can be used for training and other purposes as well as a resource for employees. In these circumstances, the final blueprints should be shown to participants to make sure they are correct. The accuracy of the blueprints will be enhanced to the extent that all groups involved in the design, delivery, and support of the service process participated in their development. The blueprints must also be updated overtime to make sure they still accurately capture how the service is being delivered.

## Yellow Transportation

### From “Worst to First”

Yellow Transportation is the largest subsidiary of YRC Worldwide, a multi-billion dollar trucking and logistics business. In 2007, for the 5<sup>th</sup> year in a row, YRC Worldwide was ranked first in the trucking industry among Most Admired Companies by *Fortune Magazine*. But, this was not always the case. As recently as 1997, the company was ranked at the bottom of its industry in *Fortune*'s annual “least-admired” companies list. In the intervening years many remarkable changes have taken place for the company. These included top-management's sharing of a new customer-focused vision with all employees in the company through in-person visits and innovative meetings, creative videos, and constant reminders. Initiation of an effective customer-feedback process, investments in service recovery and complaint management, and huge investments in technology support that affected everything from dispatch to how dockworkers load and unload freight to customer information systems were other significant changes. Simple changes also made a difference. For example, changing marketing titles from “product marketing” to “service marketing” helped employees see their jobs as more customer-centric according to Executive Vice President, Enterprise Solutions and Chief Marketing Officer for YRC Worldwide, Greg Reid. As a result of the changes, YRC has been the recipient of many awards including kudos for innovation, technology infusion, and customer focus.

Throughout its dramatic and sustained rise from “worst to first,” Yellow has proven itself to be an innovator in its industry. Throughout this process, it has relied on service blueprinting for designing new services and service improvement, and for driving customer-focused change through the sales, operating, and customer service functions of the company. According to Maynard Skarka, President of Yellow Transportation, “Our senior leadership as well as individuals from across sales, operations and our service center management are involved in our ongoing efforts to drive change through customer focus. Service blueprinting is a technique that we have found extremely useful in this process. From the mailroom to the boardroom, everyone is more focused on the customer.”

### Designing Innovative New Services

Early in its success journey, Yellow Transportation used service blueprinting in developing new services for its customers—services that would be valued by customers and provide growth for Yellow. An important early result was Exact Express, a premium service that guarantees on-time delivery of shipments within a specified time window. Today Exact Express is the company's most profitable service, and highly valued by its customers, but in 1997 Yellow did not have any form of guaranteed service. In fact, to quote Greg Reid again, in 1997 “research indicated that shipments were picked up late, or damaged, or lost, or delivered wrong, or miss-billed 50 percent of the time.” So moving to guaranteed service delivery at that time was a bold move. The process started with blueprinting an “ideal guaranteed express service” from the customer's point of view and comparing that to existing as well as competitors' service blueprints. The blueprints revealed the need for customization in terms of customer access (e.g., online, FAX, phone), the critical importance of certain “moments of truth,” and the relatively few touch points that mattered to customers. The blueprinting process allowed marketing, operations, and delivery channels to communicate clearly with each other in the development of this exciting new service that has proven to be highly valued by customers and an important source of growth and profitability for Yellow.

## Service Improvement

Yellow Transportation also used blueprinting to assess and improve its existing services. Although YRC has recently acquired a number of competing truck transportation companies and expanded its operations into China, its core service remains ground transportation of less-than-truckload shipments within the domestic U.S. Early on, one of the innovative steps that the company took on the path from worst to first was to carefully examine its core service by gathering input from both its business customers and its employees (including its 20,000 teamster truck drivers) for how to improve the core service. A core service blueprint was created to examine how basic ground delivery service worked and where there might be opportunities for improvement. Some of the most significant initial insights came in visualizing and recognizing the importance of the “driver touch points”. The over 20,000 teamsters were really the “face of Yellow” to its customers, so every time they interacted with the customer represented an opportunity to build loyalty and reinforce the Yellow brand. Changes in technology infrastructure, training, uniforms and other aspects of driver support resulted from visualizing and communicating about the core service in this way. Through the core service blueprint it also became very apparent how critical internal customer service, terminal personnel, and sales teams were in directly supporting the company’s value proposition and core service delivery. Everyone could see their critical role(s) on the blueprint and logical changes and improvements ensued.

## Integrating a Customer Focus Across Sales, Operations and Customer Service

Ultimately, YRC used blueprinting in a formalized way to inspire corporate-wide change directed at integrating customer focus across the organization. Yellow recognized that despite its significant progress and awards, the company was still operations-driven in many of its decisions and that a stronger customer and service orientation was needed. Working with the Center for Services Leadership at Arizona State University, Yellow formalized the use of blueprinting through executive and leadership training programs across sales, operations, and customer service functions. Initially, top management, all the way to senior vice presidents and the CEO were taken through service blueprinting training workshops to guarantee that the method and its terminology were understood at the highest levels of the company. Then, in groups of fifty to sixty at a time, company executives and managers participated in workshops to first learn blueprinting and then apply it in small teams to specific, real challenges that the company faced. For example, one group of sixty addressed issues related to “missed pick-ups,” or the failure to pick up a shipment from a customer, a perennial challenge for all delivery companies. Within the “missed pick-ups” issue, some small teams addressed the core process to look for ways to avoid missed pick-ups and others looked at the service recovery process following a missed pick-up. Each small team worked for a few hours during the training session to do some initial blueprinting of the service challenge combined with preliminary recommendations that were presented to the whole group. Forced to take the customer’s point of view and to document and visualize the points of contact and underlying support systems, team members came to appreciate the cross-functional cooperation that was essential and the importance of integrating internal communication and strategic decision making around the value proposition to customers. After the training sessions, the teams continued to work together virtually to further develop their blueprints and recommendations. Within two weeks the blueprints and recommendations were submitted to a senior executive who, with his team, utilized the results in strategic decision-making for the company. Through the exercise, Yellow executives across functions in the company came to appreciate the customer’s point of view—something many of them had not been directly exposed to previously. The exercise also facilitated, in a natural way, communication across functions within the company to deliver customer-focused solutions. The service changes that came about following the blueprinting exercises were significant, further reinforcing the value of the methodology throughout the organization. Above and beyond specific service changes, the cross-functional workshops on blueprinting helped managers to communicate more effectively through a shared language focused on the customer.

## Results for Yellow Transportation

For Yellow Transportation, blueprinting was an important technique used in a variety of ways to aid the company's customer-centric journey from "worst to first" over a number of years. While there were obviously many other changes going on simultaneously, the service innovations, service improvements, and customer-oriented business practices that were inspired by blueprinting were a big part of the company's success. The impressive financial results of the company, the awards it has received for innovation and service, and its continued growth, all speak to a concerted and sustained effort that has paid off.

## ARAMARK Parks & Resorts

ARAMARK is a global leader in professional services, operating as an outsourcer for everything from food, hospitality, facility management, and uniform services, working with businesses, universities, healthcare organizations, parks and resorts, convention centers and other groups. It was ranked first in its industry among *Fortune's* Most Admired Companies; the company has approximately 240,000 employees serving clients in 19 countries. One of its divisions is ARAMARK Parks and Resorts, a group that provides services for 17 major park destinations within the U.S. including Denali National Park in Alaska, Shenandoah National Park in Virginia, and Lake Powell Resorts and Marinas in the Glen Canyon National Recreation Area of Arizona to name just a few. Each of the parks has at least three or four service businesses within it that ARAMARK operates on an outsourcing contract.

## Blueprinting for Service Improvement and Customer Retention

A number of years ago, Renee Ryan, then Marketing Director for ARAMARK Parks & Resorts, confronted a challenge. It was clear that repeat business at ARAMARK's parks was declining overall. This was particularly the case at Lake Powell Resorts and Marinas in Arizona where the company operated houseboat rentals, a resort, campgrounds, boat tours and food service operations. Research revealed that many people were not returning to Lake Powell because their first experience there did not match what they expected or were accustomed to based on visits to other resort destinations. Ms. Ryan employed both traditional and visual (photos, videotape) blueprints to help convince the organization that changes were in order and specifically what should be done. The results benefited customers through improvements in service and the company through increased repeat business.

First, she developed a blueprint of a typical, quality, hotel/resort experience from a typical customer's point of view. Then she blueprinted the Lake Powell resort experience. The comparison of the two blueprints was revealing in terms of differences in basic services, standards, and processes. This comparison process resulted in the development of new services, facilities upgrades, and modernization of key service elements. Through the visual blueprint in particular, showing all aspects of the service through photos and videotapes, the need for service upgrades became apparent. Another revelation also jumped out of the blueprint. By visually tracking the customer's experience, it was clear that customers were being asked to work extremely hard for their vacations! To experience the luxurious and not-inexpensive houseboat experience they had purchased, customers first had to create extensive grocery lists, shop in crowded stores near the resort, carry all of their food and belongings down a steep embankment and haul them out to the boat. Once the trip started, more hard labor was required. Anchoring a large houseboat each night is not a trivial matter and cooking on board can be arduous and time consuming. Navigating the houseboat can also be stressful, especially for inexperienced captains. The run-down resort facilities on land, the arduous work required to get on the water, and the stress of navigation all combined to drive customers away after surviving their first Lake Powell vacation. The blueprinting exercise made all of this extremely vivid for top management and resulted in a whole suite of

new services, renovations of existing facilities, training of staff to perform to new service standards, and new measurement and reward systems. Some of the new services introduced included various levels of concierge services that started with the basic service of taking guests' things to the boat for them and later transporting guests in a cart to the boat dock. Service packages extended at the high end to include buying groceries for guests and providing executive chefs who would travel with the party and cook on board. Trained captains could also be hired to lessen the stress of navigation. All levels of service in between were also available *ala carte*.

### Results for ARAMARK

The result for Lake Powell of all of these service quality improvements and innovative new services was 50 percent fewer complaints. Repeat business increased by 12 percent, and customer satisfaction also increased significantly. The blueprints in this case were extremely valuable in that they allowed managers to see the service in ways they had never seen it before. The blueprints also provided a focus for conversations leading to change and ultimately to new service standards and measures. Using the blueprinting methodology helped people within the parks division to develop more of a customer focus, and, in many cases, the change in focus resulted in actual behavior change.

### IBM

To analyze a recent IBM service innovation, Sara Moulton Reger of IBM Service Research documented the case using two service system analyses. The purpose of the analyses was to identify lessons learned for making IBM's service innovation process more efficient, effective and faster.

The innovation, called "Tangible Culture,"<sup>30</sup> is a set of new concepts and techniques to address business culture issues. It was also a collaborative effort between IBM's consulting unit and IBM Service Research—a partnership that the company seeks to enhance and use creatively in the future. How could this complex, multi-year, indirectly-funded innovation inform IBM on future innovations outside its core technology arena?

The first service system analysis adapted a socio-economic service system approach,<sup>31</sup> which specifies the service provider, service client, and the service itself along with relationships, responsibilities, ownership, and interventions. The second analysis used the service blueprinting approach. Although both approaches were helpful, for this purpose, the service blueprinting approach proved superior for several reasons. First, the time dimension and general sequence of the multiple tasks were clarified, which was important because the innovation spanned four years. Second, the backstage and supporting processes were included, which highlighted an invisible yet vital part of the overall process. Third, the iterative and ongoing nature of some of the tasks was possible to depict, providing a view into the activities that may be especially important for future service innovations. Finally, the details of the partnership between the research and consulting units were clarified, enabling a clearer view of how the two organizations co-produced the innovation and its business value.

Through the service blueprinting process, IBM was able to identify some important lessons to use for future service innovations. Specifically, it became clear that creating the innovation itself was a relatively small part of the overall process. Instead, most of the process set about exploiting the innovation and getting it adopted—thus emphasizing those activities in accomplishing the full innovation process. Also, the vital role of the backstage and supporting processes became apparent—elements that were readily available for members of IBM Research. For future service innovations, IBM may need to identify creative ways to extend these capabilities to other divisions. Also, how and when the process obtained its



indirect funding was clarified, which could be useful to continue moving forward with promising ideas when formal funding is difficult to secure. Finally, the overall service blueprint indicated a potential roadmap to follow for future service innovations, including specific stages and opportunities for decision milestones. These were lessons that were not apparent before service blueprinting and could now augment the other lessons learned throughout the innovation, such as the importance of using interesting titles for the innovation to gain the interest of early adopters.

## Marie Stopes International Global Partnership

The Marie Stopes International Global Partnership provides reproductive health information to more than 4.8 million individuals in 38 countries.<sup>32</sup> Dr. Mark Rosenbaum, a consultant for Marie Stopes, has used a modified blueprint in his work with the Director of Marie Stopes International (MSI) Hanoi Center as well as with MSI Directors of other Marie Stopes clinics in numerous countries including China, India, Yemen, Mongolia, and Uganda. The goal of this ongoing blueprinting initiative is to improve service quality in MSI centers. In this context, namely health clinics in developing countries where virtually all of the service is onstage, modifications to the blueprint were deemed necessary. These modifications were geared toward linking human resources and operations to each customer moment-of-truth. For example, for each moment-of-truth, those developing the blueprints specified the customer contact point, the physical evidence needed, and the hard and soft measurement standards that should be in place to track service quality. Participants also examined who was "on-stage" and what needed to be communicated to customers. They then developed a script of what that person should say during the service encounter. Next, for each moment of truth, participants examined the extent to which the following were critical from an operational perspective: on-stage communication (communication between internal service providers that must occur), communication with an outside firm (e.g., outside lab), technology, and/or office supplies. Once the key elements were identified, participants specified the people who provided the service, the outside firms that needed to be contacted, the computer equipment and databases required, and the office supplies needed along with who was responsible for ordering them. In the Marie Stopes case, blueprinting was used to identify some very tactical implementation issues that were very important for improving quality. By using a modified blueprinting approach that incorporated 1) physical evidence, 2) customer defined hard and soft measurement standards, 3) service scripts for onstage personnel, and 4) operations necessary for each moment of truth to be successful (i.e., internal and external communication, technology, and office supplies), the modified blueprints helped to improve the service offerings at the clinics.

## San Francisco Giants

After attending one of our executive education workshops, Rick Mears, Senior Vice President for Guest Services for the San Francisco Giants, began using the service blueprinting in his organization. He shared his strategic plan for his department, Giants Guest Services, with two other department heads, Russ Stanley, Vice President of Giants Ticket Services, and Tom McDonald, Senior Vice President of Consumer Marketing. They brainstormed and documented their existing customer service, client service, and guest communication plan and then created a blueprint of customer contact and service delivery. As they were developing the blueprint, it became clear where integration and/or streamlining of their separate areas would be beneficial to the Giants organization and its customers. They implemented the obvious improvements immediately and have since created detailed strategic plans for their departments and documented the points of integration that exist. Many of these changes involve enhanced communication about each of their areas that focus on the customer and ballpark experience. For example, some of the organizational changes the blueprinting process generated include having communications (e.g., press

releases, advertising, ballpark announcements, and email) shared across all departments and discussed before being distributed to the public, as well as briefing radio and television broadcasters about changes to ticket sales and ballpark operation policies and procedures. Another result coming from the blueprinting process was the idea to make it easier and to motivate the Giants 3.2 million annual guests to share their ideas and suggestions. Based on that feedback, the owners of the Giants have committed \$40 million in facility improvements for the ballpark during the past four seasons.

## Insights for Service Innovation Practice

As the above cases illustrate, service blueprinting is a service innovation approach that is adaptable across different types of organizations and in a variety of practical applications. Yet, these cases represent only a small sample of the firms that have benefited by using blueprinting. We have seen blueprinting used in many different ways – some very straightforward uses of the technique, some highly evolved modifications. Having worked with many firms in their blueprinting efforts we see commonalities in terms of the benefits companies realize from the process of service blueprinting. These key insights are discussed below.

### Providing a Platform for Innovation

First and foremost, service blueprinting provides a common platform for everyone – customers, employees, and managers – to participate in the service innovation process. Blueprinting provides a common point of discussion for new service development or service improvement (a picture is worth a thousand words). The service blueprint gives employees an overview of the entire service process so they can gain insight as to how their roles fit into the integrated whole. This reinforces the notion that the total service is greater than the sum of its parts. This benefit of a clearer organizational vision is realized by virtually every firm that utilizes blueprinting. Among our cases, perhaps the most dramatic rewards have been reaped by Yellow Transportation, where the executive team utilized an ongoing blueprinting initiative to achieve profound changes in customer-orientation throughout the organization. At IBM, service blueprinting enabled the Service Research division to codify lessons learned from a complex, multi-year service innovation into a potential roadmap for speeding future service innovations throughout the company.

### Recognizing Roles and Interdependencies

The process of blueprinting and the document itself generate insights into various role and relational interdependencies throughout the entire organization. The customer's actions and interactions are highlighted, revealing points at which he or she experiences quality. The blueprint reveals all of the touchpoints that are critical in meeting customer needs and helps in identifying likely points of service failure. For example, the use of photo and video blueprints by ARAMARK put employees and managers into their customers' shoes, revealing just how hard the vacationers at Lake Powell had to work for their houseboat experiences. Service blueprinting helped ARAMARK identify the key failure points, or dissatisfiers, in the service. At Yellow Transportation, mapping the core service revealed that its unionized teamster drivers were the face of the company – one of the most critical brand touchpoints for customers.

Utilizing the visual language of service blueprints puts everyone involved in the service design process on the same page, creating more communication efficiency and informational precision during the typically “fuzzy front end” of the service development process. Rick Mears of the San Francisco Giants used blueprinting to facilitate brainstorming with other department heads. This effort proved to be a catalyst for a host of key improvements in the efficiency and effectiveness of the entire organization's integrated marketing communications. Service blueprinting illuminated the details of the collaboration

between the research and consulting units at IBM and provided a clear view of each partner's responsibilities in co-producing the "Tangible Culture" innovation. Blueprinting also helped IBM understand the critical role played by backstage and supporting processes, which should be in place and fully functional before a service innovation project moves forward.

### **Facilitating Both Strategic and Tactical Innovations**

Service blueprints can be modified to suit any level of analysis desired. The methodology has been used to improve macro- and micro-level processes, facilitate strategic and tactical decision-making, as well as design complex and simple services with high and low levels of divergence. Managers at all levels respond favorably to service blueprinting when they are introduced to it in workshops and seminars. Most can almost immediately see the potential and start thinking of ways to use the technique. Although Yellow Transportation's use of blueprinting ultimately resulted in changes at all levels, the idea for utilizing blueprinting started with top management. Successive functions including marketing, sales, and operations were introduced to the blueprinting process with the express purpose of addressing discrete, tactical challenges that crossed functional areas. Different functions were forced to come together to solve specific, tactical-level problems over a blueprint. This cross-functional collaboration led to the realization that the technique was highly useful for addressing problems at all levels of the organization.

### **Transferring and Storing Innovation Knowledge**

Service blueprints can be printed out or be stored electronically and made available to everyone involved. Blueprints being developed can be posted on a collaborative website, providing all participating parties with access to an editable form of the document. Suggestions and edits can be posted, which can then be further discussed, blogged about, incorporated or nixed. In fact, a great deal of the entire blueprinting process can be done remotely, or virtually. At Yellow Transportation, managers used a mix of face-to-face blueprinting sessions and virtual blueprinting to tackle specific service improvement projects. Teams came together initially to start the blueprinting process rolling, then worked virtually sharing in-progress blueprints and recommendations electronically so work could continue from their respective, geographically spread locations.

IBM foresees using service blueprints as a communications approach to drive improvements in the learning curve for future innovations. It has adapted the technique to allow transfer of knowledge not just across departments and business units, but over time, to future innovators, as well.

### **Designing the Moments of Truth**

Blueprinting promotes a conscious decision on what consumers see and which employees should be in contact at each moment of truth. In many services it is relatively easy to decide which elements of the service should be provided in view of the customer and which elements should be performed behind the scenes, or backstage. For instance, at a hotel, housekeeping may provide turn down service in the presence of a customer, but the laundry is clearly a housekeeping activity best performed backstage. When developing a new and innovative service, however, the decisions are not always so easy. Recent trends in the restaurant business, for example, now make it perfectly acceptable, even desirable for diners to eat at a "chef's table" located in the kitchen, which is traditionally off-limits to customers. Service blueprinting makes it easier to see the key operational, human resources, and marketing issues associated with offering such a distinctive dining experience. At the Marie Stopes clinics, blueprinting helped managers make improvements to a medical service performed almost entirely onstage, in front of customers. The blueprinting technique was adapted to this unique situation to allow managers to specify precisely the people and physical evidence required at each touchpoint, as well as design service scripts to include only what was absolutely necessary for the service provider to say at each point in the service.

### **Clarifying Competitive Positioning**

Service blueprinting allows firms to clarify competitive positioning by facilitating the comparison of the desired service and actual service, or company and competitor processes. Mapping dual processes for the identification of key service quality gaps is a highly useful application of blueprinting. This is not surprising, given firms' continuous efforts to position their service offerings correctly in the highly competitive global marketplace. For example, the ARAMARK team identified a luxury resort vacation as a key competitive alternative to their Lake Powell houseboat experience. When both services were mapped from the customer's point of view, important differences in the two experiences visually jumped out of the blueprints. Insights from the blueprinting process allowed the ARAMARK team to augment the existing service with a whole set of new services designed to make the houseboat experience more luxurious (if desired) and to make appropriate renovations to the facilities and other physical evidence. These changes proved effective, resulting in fewer complaints and an increase in customer loyalty. Yellow Transportation used a similar approach when designing its new guaranteed express delivery service, Exact Express. Executives first mapped competing brands' services, using that as a starting point for differentiating their own innovative service.

### **Understanding the Ideal Service Experience**

We also perceive service blueprinting as being applicable within the realm of market research in understanding and designing ideal service experiences. For instance, brands undergoing repositioning often seek information regarding customer perceptions of what an "ideal" brand within a given product or service category would look like. Customers are asked to identify where such a brand would be positioned along key attributes or dimensions. For services, it is often useful to have customers identify the ideal service process for a given service category. Service blueprinting can help market researchers overcome the limitations inherent in asking customers to describe such a service by using words alone. The service blueprint can provide a means for service brand managers and service designers to view and compare the customer's ideal service, the firm's actual existing service, and any number of competitors' service offerings. Use of photography or videography can greatly enhance the effectiveness and efficiency of this process. We are beginning to see this type of usage emerging in the business and trade press as well as in the academic literature.<sup>33</sup>

### **Other, Creative Uses of Blueprinting**

Over the course of many years of guiding firms through the service blueprinting process, other potential uses for the technique have emerged. For instance, it is now apparent that a great deal of service will continue to be delivered via self-service technologies. It has proven relatively easy to incorporate technological components and interfaces into their appropriate "physical evidence," "onstage," and "backstage" sections of the blueprint for such services. Students of blueprinting at Arizona State University developed an application of the technique that allows the mapping of processes that extend across organizations. In this era of firm specialization, strategic partnering, networks, and outsourcing, this particular capability of service blueprinting will surely prove to be valuable. The ability to incorporate interfaces between customer and provider systems will be particularly relevant for mapping business-to-business services. A related development involves the integration of customer-to-customer interactions within a service blueprint. For many industries such as hospitality and education in which customer compatibility is a critical success factor, the ability to effectively identify and design critical points of customer-to-customer interaction can provide a distinct competitive advantage.

## Insights for Cross-Disciplinary Research

While this article is primarily intended to shed light on service blueprinting as a practical approach for applications in business, it is illuminating to consider the implications for cross-disciplinary service(s) research as well. Because blueprints are visual representations that are inherently cross-functional, it seems that researchers from various functional and disciplinary domains (e.g., marketing strategy, technology, operations, consumer behavior, human resources, design, facility management, branding) could use blueprinting as a means of communication as well as a means for identifying specific joint research opportunities.

### Reading Blueprints Through Disciplinary Lenses

Professional and academic researchers alike are trained to specialize, taking deeper and deeper dives into their functional and disciplinary specialties. As we gain expertise, we often become better at understanding, predicting, and contributing to knowledge within a narrower and narrower sphere. Yet, the world doesn't operate in these specialized, isolated, silos and, as researchers, we are being encouraged to get outside our disciplines to partner with others in creating more holistic views of challenging and important issues. This is one of the underlying reasons behind the emerging discipline or multi-discipline of service science catalyzed worldwide by IBM over the last several years.<sup>34</sup> In fact, IBM encourages the development of "T" shaped people--those who have depth in a particular domain, but who also have the breadth of understanding needed to deal with complex, multi-disciplinary service problems and applications. While T-shaped college graduates are important to the success of global businesses, we would advocate that perhaps T-shaped researchers are needed to solve some of the most significant research issues of our modern service economies.

Some of the most significant challenges of cross-disciplinary research are often the language and conceptual barriers that exist among research areas, making it difficult to even begin research dialogs. Service blueprinting can be useful in this regard. A service blueprint forces people to take a cross-disciplinary, cross-functional, view of a particular service problem or application. For example, by starting with the customer and the customer's experience, researchers from technology, supply chain, and operations disciplines are compelled to see the implications of their work through the customer's eyes which they do not do as a routine matter of course. Similarly, marketing researchers, while typically comfortable with taking the customer's view, are compelled to see all of the internal support systems and technology and employee interactions that are required to create a customer's experience.

### Comparing Mental Models of Service Phenomena

One of the challenges in service industries and service research is that mental models of particular service phenomena may not be shared. This is particularly true in highly complex service arenas. For example, within an IT services innovation context, several researchers may be working on the same problem conceptually, yet their mental models of the service (given its complexities) may be quite different. Similar challenges are likely to arise in complex healthcare research and innovation. Thus, in communicating about the phenomena or comparing research objectives relative to the phenomena, researchers may be operating like ships in the night, passing each other without really seeing each other's perspectives. If different groups were to create their own service blueprints of the focal phenomenon, even at a very high level, comparisons of mental models of the same service process could facilitate communication and progress on the project. From a pure cognitive theory perspective, the comparison of mental models of service phenomena could contribute to understanding of how people think, particularly as it relates to training, education, or even cultural background.

### **Capturing Dynamic Processes**

Service blueprinting allows the capturing of dynamic processes in a visual manner. Although still somewhat sterile when compared to the actual service, a blueprint is a way to track the chronology of a dynamic event and make it visual. Because they are chronological through time, service blueprints capture the sequence of events in a service process. Creative uses of blueprints add time elements to them—time both from the point of view of customers experiencing the service, and also from the perspective of internal process time required to support the service. Relatively few methods allow for this type of dynamic, and at the same time visual, representation.

### **Blueprinting Disciplinary Research Processes**

While somewhat far-reaching, it is possible to imagine service blueprints being useful in visualizing the research process itself. As researchers in different disciplines, or even in sub-disciplines within a field, we conduct research in specialized ways, following unique paths in defining the scope of our domain and particular research problems, developing hypotheses, and using a variety of methodologies to address important research issues. To facilitate communication among researchers, blueprints could be used to explicate and compare research processes. It would be a particularly interesting exercise to force ourselves to consider “who is the customer” for our research. Is it the academic journals, funding agencies, our peers, or business practitioners? In doing so, the process for meeting customer expectations and needs could be extremely illuminating. Working through these types of blueprints could also help researchers to see how they might work together most productively and where the barriers might lie.

## **Conclusion**

Despite the dominance of services in modern economies, and their rapid growth worldwide, it is surprising how little research and how few methods and techniques exist to address the unique challenges of service innovation. Here we have presented “how to’s,” successful cases studies, and the benefits of one such customer-focused service innovation technique—service blueprinting. From our experience we know how useful and versatile this approach is for organizations of all sizes and for strategic as well as tactical decisions. The uniqueness of the technique when compared to other process techniques is its unrelenting focus on the customer as the center and foundation for innovation, service improvement, and experience design. That doesn’t mean that customers are the source of innovation, but rather that value to the customer (broadly construed) is the central purpose of innovation. We hope that by capturing what is already known about blueprinting and sharing our experience and relevant case studies we will inspire broader adoption of the technique as well as creative extensions that will further enhance its value to service managers and to researchers from multiple disciplines.

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