

Using Service Walkthroughs to Co-Create Whole Service Experiences

A Prototyping Technique for Service Design

Johan Blomkvist¹ and Angela Bode²

¹Linköping University, 581 83, Linköping, Sweden ²Huddle design Pty Ltd, level 6 90 William street, Melbourne 3000, Australia

Abstract

A process for prototyping whole services rather than individual parts in isolation is needed. Prototyping services is different from prototyping physical products, yet many designers still use traditional approaches to prototype services, focussing on specific parts rather than whole services. This is especially surprising considering the descriptions of service design as a holistic approach in research. In this paper we suggest and describe a service prototyping technique termed service walkthrough. The service walkthrough technique allows access to service experiences from a holistic point of view, representing not only specific parts (service moments or touchpoints) but also transitions and coherence of the service proposition. In this case, 25 walkthroughs were conducted by a service design agency in Australia. The approach was iterative in the sense that the customer journey was redesigned continuously, and it was enacted by designers supported by scripts for behaviours based on a previous research phase. The walkthroughs were conducted in a lab with actual customers of the client and used low-fidelity props and collateral. Errors were introduced during the walkthrough to gain a better understanding of what expectations the customers have on the service. The walkthrough technique allowed the designers to understand the service experience in an embodied and holistic way. The walkthrough also emphasised empathy for the experience of the intended customers and other stakeholders in the service. More time in between iterations and dynamic roles might improve the approach.

Key words: *service prototyping, pluralistic walkthrough, service walkthrough*

1. INTRODUCTION

Service design is an emerging field with many influences and a wide array of approaches. Common to the approaches are challenges related to the new view of services as main driver of value exchange, rather than e.g. products or interfaces. Holmlid & Evenson (2007) have claimed that the specific attributes of services makes prototyping special in a service context, but that those differences need more attention and research. The implication of the differences are still not understood, something that is especially true for service prototyping which has been given limited attention by the research community.

In on-going efforts to explore and reveal what service prototypes can be and how they can be evaluated, a number of different approaches have been tested (Blomkvist, 2011; Arvola et al., 2012; Blomkvist, Åberg, & Holmlid, 2012; Blomkvist, Åberg, & Holmlid, forthcoming). Common for the approaches have been an underlying conception of services as sequences of service moments where customers interact with service providers. Representations of services are hence representations of sequences where all the individual service moments are interrelated and cannot be wholly understood in isolation. To think of services as whole experiences is common in the service design community, and can also be traced back to other disciplines.

The experience of a service may be seen by its customers as a whole experience (Goldstein et al., 2002) rather than single events, which has also been noted in disciplines with similar challenges (Pasman, 2011). Also,

contrary to current service prototyping practice, service scholars see services as a design “object” to be approached holistically. The manifesto of the Service Design Network, e.g. states that service design “is a holistic approach, which considers in an integrated way strategic, system, process and touchpoint design decisions.” (Service Design Network, n.d.). The holistic aspect is also emphasised in a textbook on service design thinking where Marc Stickdorn have listed five principles of service design (Stickdorn, 2010). The five principles say that service design thinking is; user-centred, co-creative, sequencing, evidencing, and holistic. In 2009, Kimbell wrote that a service design approach “would see all ././ interfaces or ‘touchpoints’ with the customer (or other end users) as something to be thought of holistically, and it would seek to offer an intentionally-designed experience of the organization” (Kimbell, 2009, p.2-3). Service designers no doubt consider whole services in the front end of service development, but for some reason the practice of prototyping services has not been developed in this direction.

Designers need to capture both physical and immaterial qualities in service representations to understand service experiences. They also need to take a sequence of mediated interactions between service provider and customers into account. To accomplish this lies at the heart of the service prototyping challenge. When dealing with service that can be described or understood as a journey, with a clear temporal and sequential nature, there are some interesting ways to approach prototyping. For this type of service we have seen much knowledge about visualisations generated within service design (Segelström, 2010; Parker & Heapy, 2006), and representing service as journeys is one of the ways in which service designers’ work distinguishes itself (Kimbell, 2009). This research attempts to investigate how enactments of future service journeys support the service development process.

2. ORIGINS OF THE SERVICE WALKTHROUGH TECHNIQUE

The service walkthrough technique has been inspired by experience prototyping, bodystorming and pluralistic walkthroughs. From these we understand that there are a number of issues that need to be understood – an experience, an embodied and situated design situation, and empathy need to be created in design teams or for different stakeholders.

A walkthrough is performed with a physical representation of how a service unfolds over time. It allows designers to explore, evaluate, and communicate service concepts in an embodied and holistic way. By embodied we mean that actual people take part in the service representation and understand the service by being physically and emotionally present. By holistic we mean that the service parts, the service moments and touchpoints – when understood and experienced as a whole sequence – will reveal something about the service that cannot be accessed through the individual service constituents. A service walkthrough should thus be understood as a way of increasing empathy with the potential customer group.

The techniques Bodystorming and Experience prototyping advocate embodied prototyping approaches, that allow designers to get an understanding of experiences. These techniques have usually not been used to understand whole service experiences, but rather focused on single touchpoints. Bodystorming as a technique was termed by Burns et al. (1994), as a part of their Informance design approach. Informance is an approach quite similar to service walkthroughs where scenarios are acted out using low fidelity prototypes as props. The idea is that these sessions open up “informed dialogues” (p. 119) between designers and audiences (Burns et al., 1994). Bodystorming and its application in Ubiquitous Computing have been more thoroughly explored and reconfigured by Oulasvirta, Kurvinen, & Kankainen (2003). Bodystorming is a contextual way of exploring and understanding design problems. A session is carried out by gathering a group of people that explore a number of design problems related to a specific situation. The problems should be based on user research and the location in which the problem is explored should in some way resemble the intended use context to provide useful and reliable results (Oulasvirta, Kurvinen, & Kankainen, 2003).

Experience prototyping is an approach that attempts to understand the experience of interacting with an artefact, system, or a service (Buchenau & Fulton Suri, 2000). This approach is similar to bodystorming in that it tries to replicate an existing situation or construct a new one, in which participants can understand, in an embodied way, what it feels like to interact with something or some situation. Buchenau & Fulton Suri (2000) also showed how information about goals and needs were introduced to the participants of the prototype to produce certain behaviours and test certain aspects of the experience. This requires a measure of roleplaying from the participants, something that is not always experienced as easy or natural (Oulasvirta, Kurvinen, & Kankainen, 2003; Brandt & Grunnet, 2000). Roleplaying, drama and design games are popular techniques in design used to explore interactions and facilitate communication between stakeholders (see e.g. Brandt & Grunnet (2000)). A key in roleplaying situations is the props and setting, affecting the possibility for the participants to understand the situation and make relevant choices and actions.

Another technique with similar objectives and motives is pluralistic walkthrough (Bias, 1994). The technique was initially intended for usability inspections of user interfaces. This kind of walkthrough includes three types of participants: representative users, developers, and human factors professionals. Each participant takes the role of a user. The walkthrough starts with a brief overview followed by all participants going through the interface, represented with hard copy scenarios, and writing down their actions. After each scenario the participants have a semi-formalised discussion. A session administrator facilitates and moderates the session to keep users' willingness to comment the actions and avoiding developers biasing users.

The common theme in these techniques is that they are all concerned with empathy for target user or customer groups, and how a design contributes to an experience. In the case of bodystorming this is achieved by going through the service in an embodied way, and experience prototyping also increases the understanding of what kinds of experiences can be associated with interactive elements. In the case of pluralistic walkthrough, empathy is increased by including potential users together with the developers and human factors professionals, who are asked to put themselves in the shoes of the users. According to Bias (1994) this was a way of increasing "inspector empathy" (p. 64). In addition, in the case of bodystorming the situated experience is emphasised – only by exploring prototypes in contexts that resemble the intended implementation context can we understand the end-users or customers. This is an important aspect of service prototyping as well, since a service experience cannot be separated from its location and contextual factors (Bitner, 1992).

We suggest that in service prototyping, a combination of these three techniques, where the whole service is walked through using "props" and "real people", is a useful approach. In the case described below we will use an instance of a service walkthrough technique with props in the form of mock-ups of all the touchpoints that were considered meaningful for the prototyped service. Together with previous walkthroughs (Arvola et al., 2012; Blomkvist, Åberg, & Holmlid, 2012) the case is used to understand what knowledge can be generated by using the service walkthrough technique. To be able to describe different walkthroughs, one must be able to distinguish between different approaches. This can be done by looking at the dimensions of service walkthroughs.

2.1. Dimensions of service walkthroughs

In previous research a number of perspectives on service prototypes have been suggested (Blomkvist & Holmlid, 2011), and presented as a framework. The framework divides the different perspectives into three levels, the prototype, activity, and stakeholder levels. These levels all have implications for how service prototypes such as service walkthroughs can be conducted, and in the case of stakeholders it can be seen as a dimension of service walkthroughs. The stakeholder dimension concerns who is involved and to what degree. Prototyping can be conducted without any external stakeholders, i.e. by the designers themselves, or it can include all relevant stakeholders, both in the process of creating a service representation (as authors) or as participants or audience of a prototype.

On the activity level different techniques, such as the walkthrough technique, can be chosen. The setting of the prototype – where the prototype takes place – will influence what knowledge can be extracted from the prototype. If the prototype takes place in a context that is similar to the intended context of implementation more valid information can be gathered opposed to prototypes in artificial environments such as design studios and similar locations (Oulasvirta, Kurvinen, & Kankainen, 2003). On the prototype level, the fidelity of the service representation itself is concerned. How well the physical manifestation of the service corresponds to the final manifestation, and how well it supports the purposes of prototyping will influence the prototype. In short, the dimensions are:

- stakeholders involved or not,
- location of activity, and
- fidelity at levels of representation.

3. THE SERVICE WALKTHROUGH CASE

For this case, 25 service walkthroughs were conducted by the service design agency Huddle design located in Melbourne, Australia. The client was a major Australian corporation that was developing a new service proposition and the aim was to generate a positive customer service experience together with the concerned stakeholders. On the stakeholder level, customers were invited to participate, as well as representatives from the service provider. Customers walked through the service individually and changes were made to the walkthrough iteratively.

The prototyping took place in the testing labs of the corporation. There was one lab (standard room with no windows) available for the tests. Hence, the location was not representative for the actual service which takes place in various locations, but none like the one available for the prototype. The appropriateness of generated ideas would thus have to be considered against the background that other contexts might make ideas difficult or inappropriate to implement.

The prototyping room had a double sided mirror on one side, allowing observers to watch the sessions. Simple furniture was borrowed from the neighbouring labs but a lot of props were also brought from the huddle office (e.g. cushions, lamps, books, telephone, etc) to "decorate" the space and bring the walkthrough to life. The physical representation was made more "realistic" in this way and the included props made the representation more high fidelity in some aspects. Having a phone allowed customers to contact a call centre.

3.1. Process

People at Huddle represented four different roles; in-store representative, call centre representative, field technician, and one facilitator for the walkthroughs. These roles were based on a research phase, where the designers had increased their understanding and empathy for the current service journey experience from the perspective of the customers. The outcome of the research phase included customer pain points, delight points and expectations for improvements and future service offerings. Macro trends were also explored, that could have an impact on the Australian market in the next 5-10 years. The trend analysis resulted in a high-level understanding of how macro trends may have an impact on the look and feel of future service offerings and it also provided an opportunity to compare the customers' expectations for future service offerings with the macro trends. To be able to understand and rate the feasibility of generated ideas in later stages of the process, stakeholder interviews had been conducted to gain an overview of the organisation's existing capabilities and processes. Thus, a high-level overview of the mechanics and the departments involved in delivering the service had been obtained before the planning of the service walkthroughs was initiated.

2.1.1 Plan the service enactment

Based on the research, an ideal service experience was designed for the new service offering from the perspective of the customer. Key service moments were selected based on which touchpoints future customers were most likely to use and which ones would lead to the most significant change to the current state. To ensure a cohesive flow, other touchpoints were added to connect the different service moments, and to make the walkthrough possible and understandable from the view of the customers. It was based on those moments that low-fidelity sets, props and collateral were developed. Examples of props includes cardboard computers, cardboard store products, old telephone, desk lamp, mailbox, books, plants and collateral like printed brochures, flyers, letters, and e-mails. In addition, each role had a uniform and furniture available in the testing lab was used, such as tables, chairs and a soft armchair. The roles were formalised as scripts for the designers to follow when enacting the different roles of the walkthrough. 25 different customers from 5 different customer profiles were recruited to provide a range of different perspectives and feedback. 4 people from Huddle participated in planning and running the walkthroughs.

2.1.2 Iteratively run and refine service enactments

The walkthroughs were made in clusters of about 7 in 3 days. After that, the designers went back for about 2 days, to refine and change elements of the service journey based on the findings. Then they went on to the next set of iterations. Changes were directly informed by customer feedback or the team's observations during enactments. The sessions were facilitated to loosely guide the customer through the journey. The customer would be verbally offered a selection of channels to choose from to proceed in the journey. Based on the choices collateral and scripts were then prepared. During the walkthroughs, everyone was allowed to interfere, but too many interruptions were avoided to not disturb the flow and distract the customer. Mainly the facilitator could stop and ask questions to the customers.

To generate knowledge about how customers would react, and what their expectations for resolutions were, delays, mistakes, and failures were added. Some examples are presented below.

Delays:

- Delays in expecting a field technician to visit the customer at home to fix/replace equipment.
- Delays in receiving help from customer service (e.g. waiting in a telephone cue, being referred to the store instead).
- Delays in exchanging faulty equipment for a new product.

Mistakes:

- A customer receives the wrong product in the mail (not what they had ordered).
- A wrong bill (usually with a very high amount to pay).
- Field technician bringing along the wrong equipment to be installed in a customer's home.

Failures:

- Product stops working, customer has to seek customer support.
- Customer cannot complete sign-up/buy process on the web or on the phone. They have to go to a store - or vice versa.
- Customer service cannot fix fault for customer, product has to be exchanged in a store or returned by mail.

2.1.3 Data synthesis and concept delivery:

Based on the findings of the enactments, the structure of the customer's ideal service experience was refined. As part of the new journey the sessions generated:

- service elements (to provide greater detail to the activities in each step of the journey), and
- service principles (to inform how the service elements can best be delivered).

The resulting journey was delivered as a well-defined service process that could be implemented in the organisation.

4. RESULT DISCUSSION

The organisation is currently adopting the designed service experience to be rolled out with the new service offering in the next couple of years. An iterative approach was very useful, and despite the low-fidelity representation it was possible to generate much valuable knowledge and ideas. A very important step before the walkthrough was to do thorough research, since ideas would otherwise be difficult to evaluate in terms of feasibility. Another impression from using the walkthrough technique was that it was fun. We have seen this also in previous research (Blomkvist, Åberg, & Holmlid, 2012), and the fun aspect together with low technical requirements makes it a good technique for involving many different types of stakeholders. To make customers feel at ease all interactions were informal and casual to allow them to be more confident and secure when acting as a customer. Throughout the enactment, customers were asked to provide informal feedback and suggestions for improvement.

The walkthrough technique allows for situated and embodied understanding of services or service moments. As such, prototypes can be thought of as learning tools (Coughlan et al., 2007). Prototypes support knowledge production especially when walkthroughs are used to generate ideas iteratively, as in this case, where results of changes could be identified immediately in the next iteration.

Some recommendations for future walkthroughs were also generated.

- Research prior to walkthrough to study the roles people will be playing. For example, playing a store representative you should have spent some time observing and talking to staff in major retail stores to gain a better understanding of what they do, the processes involved and the challenges they face on a daily basis. This way it could have been easier to play and embody the role of a store representative. And that is very important to make sure your experience feels as "real" as possible. Otherwise, include actual front line staff in the walkthroughs.
- More iterations and pauses to review and implement changes instead of trying to do it all at once. Also take a break to just step back and discuss observations with your team.
- Consistent collateral. Decide on the level of detail provided in the collateral and stick to it. Otherwise you customer may be confused and will point out mistakes.
- Swap roles in the team. The designers stuck with their roles throughout all enactments, it could have been interesting to move roles around. This however requires time to re-adjust and study the material.
- Have someone from the team observing the walkthrough enactments. Take turns. They might spot key insights or things that need to be changed much easier.

4.1. Service walkthrough lessons

Together with previous research using the service walkthrough technique, a number of insights have been generated.

- By looking at a whole service it is possible to understand transitions and coherence of the service constituents.
- The way information is passed along in a service can be tested.
- Design decisions can be contextualised in relation to physical, social, and technological contexts.
- The walkthrough provides embodied and situated knowledge.
- A lot of information can be generated in short time.
- It can support content production.
- It can improve empathy for customer.
- By including developers (of IT systems) they get a better understanding of the service experience.
- It can reveal what customers don't understand.

A number of interesting dimensions of the technique is also emerging. For instance, one way of manipulating the technique is to change the **length of iterations**, from single service moments to whole journeys or many walkthroughs, in this case where around 7 walkthroughs were used for each iteration. Also, **validity** of both the participants and the location should be considered, aspect that can be further explored by reading (Blomkvist & Holmlid, 2011). There is also a difference in using **scripted or improvised** roles, where improvisation probably is more useful in exploratory phases, while scripted will be more useful in later stages of design as a support for implementation in organisations, as in the case described in this paper. Another perspective is whether **static or dynamic** roles are used by the participants. Static roles means that each participant is assigned a stakeholder role and hangs on to it throughout prototyping, and dynamic means that the roles are switched. Switching means that more work is needed to understand the represented stakeholder. Regardless, each role benefits from thorough research to prepare and imitate realistic behaviours. Another choice concerns whether **interruptions** are allowed or not, meaning if it is allowed for participants to stop in the middle of a walkthrough to suggest changes or provide feedback, or if specific sessions or times are assigned for feedback. And finally, there is a choice of **introducing** errors or not. Introducing errors in this case revealed some of the expectations the customers had about the organisation's ability to resolve issues. Not having errors helps design how the service should be experienced when everything is working according to plan, this is more of a way to design the ideal service experience.

5. CONCLUSION

A database of cases is being built up to provide a more solid empirical grounding for future research about service walkthroughs, but these early attempts show the potential of using the prototyping technique in a multitude of ways. As a way to include stakeholders it has advantages in the form of low technical requirements and it seems to be experienced as a fun way test and generate services. The iterative approach utilised here proved very useful when a target experience was designed. It was also a good approach to use delays, mistakes, and failures to see which kinds of reactions and expectations the customers would have. This is something that will be further examined in future research. Potential improvements include allowing more time for reflection and discussions about observations and experiences. Changing roles is another way to potentially enhance the technique, and also a way to increase the ability for designers to empathise with different stakeholder groups and their experiences of the service.

6. REFERENCES

- Arvola, M., Blomkvist, J., Holmlid, S., & Pezone, G. (2012). A Service Walkthrough in Astrid Lindgren's Footsteps. *Service design and service innovation conference, ServDes*. Espoo, Finland.
- Bias, R. G. (1994). The Pluralistic Usability Walkthrough: Coordinated Empathies. In J. Nielsen, & R. Mack, *Usability Inspection Methods* (pp. 63-76). Wiley and Sons.
- Bitner, M. J. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing*, 56(2), 56-71.
- Blomkvist, J. (2011). *Conceptualising Prototypes in Service Design*. Linköping, Sweden: Liu-Tryck.
- Blomkvist, J., & Holmlid, S. (2011). Existing Prototyping Perspectives: Considerations for Service Design.

- Nordic Design Research Conference, NORDES*. Helsinki, Finland.
- Blomkvist, J., Åberg, J., & Holmlid, S. (2012). Service walkthroughs to support service development. *Service design and service innovation conference, ServDes*. Espoo, Finland.
- Brandt, E., & Grunnet, C. (2000). Evoking the future: Drama and props in user centered design. *Participatory Design Conference*. CPSR.
- Burns, C., Dishman, E., Verplank, W., & Lassiter, B. (1994). Actors, Hairdos & Videotape - Informance Design. *Conference Companion on Human factors in Computing Systems* (pp. 119-120). Boston, MA, USA: ACM.
- Coughlan, P., Fulton Suri, J., & Canales, K. (2007). Prototypes as (Design) Tools for Behavioral and Organizational Change. *The Journal of Applied Behavioral Science*, 43(1), 122-134.
- Goldstein, S. M., Johnston, R., Duffy, J., & Rao, J. (2002). The service concept: the missing link in service design research? *Journal of Operations Management*, 20, 121-134.
- Holmlid, S., & Evenson, S. (2007). Prototyping and enacting services: Lessons learned from human-centered methods. *Proceedings from the 10th Quality in Services conference, QUIS 10*. Orlando, Florida.
- Kimbell, L. (2009). The turn to service design. In G. Julier, & L. Moor, *Design and Creativity: Policy, Management and Practice* (pp. 157-173). Oxford: Berg.
- Oulasvirta, A., Kurvinen, E., & Kankainen, T. (2003). Understanding contexts by being there: case studies in bodystorming. *Personal and Ubiquitous Computing*, 7, 125-134.
- Parker, S., & Heapy, J. (2006). *The Journey to the Interface*. London: Demos.
- Pasman, G. (2011). Lost in Translation: Issues in Designing Crossmedia Applications and Services. *Proceedings of the 29th ACM international conference on Design of communication* (pp. 175-179). New York, NY, USA: ACM.
- Segelström, F. (2010). *Visualisations in Service Design*. Linköping, Sweden: Linköping University.
- Service Design Network. (n.d.). *SDN Manifesto*. Retrieved 06 16, 2010, from Service Design Network: <http://www.service-design-network.org/content/sdn-manifesto>
- Stickdorn, M. (2010). 5 Principles of Service Design Thinking. In M. Stickdorn, & J. Schneider (Eds.), *This is Service Design Thinking* (pp. 34-45). Amsterdam, The Netherlands: BIS publishers.