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# Facilitating in service design using desktop walkthroughs

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## Abstract

This paper uses a combination of empirical sources to discuss the use of desktop walkthroughs. Desktop walkthrough is a design tool that uses a collaboratively built miniature environment that allows participants to interact with abstract concepts such as service processes and flows. Facilitation of desktop walkthroughs in literature focus on utilitarian goals, while a closer examination finds that it is used for a multitude of purposes. This paper captures experiences from using desktop walkthroughs from the perspectives of a design student, a design researcher, in-house designers and service design consultants. The examples of using desktop walkthroughs shows that purposes include: marketing oneself as consultant, educating participants, selling design as a method (prototyping more specifically), and pushing participants to leave their comfort zone and generate more innovative ideas. Finally, we go through aspects to consider in relation to the facilitator role and what motivates the use of desktop walkthroughs.

**KEYWORDS:** desktop walkthrough, facilitation, tools, co-design

## Introduction

Design is moving the boundaries and expanding the domain within which it operates. Buchanan has illustrated this progression (Buchanan, 2001) and service design is part of this movement where new materials and domains are being explored by designers. There has been recent academic interest in understanding service as a design material specifically (Blomkvist, Clatworthy, & Holmlid, Ways of Seeing the Design Material of Service, 2016; Secomandi & Snelders, 2011). With new territories for design comes new (opportunities and) challenges – and with that new tools that help designers deal with new situations. These tools can be the result of research or they can come from design practice. When techniques and tools are generated in practice and reach some level of familiarity within a field it is reasonable to assume that there is some value to it, since it has been used to deal with challenges and preconditions in the field. Desktop walkthrough (DW) is such a technique. It has been mentioned, often briefly and without substantial knowledge about how it has been used or for what purposes, by various design consultancies (see e.g. Engine (n.d.)).

In terms of service design there is a need to be able to traverse between the actual physical world and representations that capture some aspects of the current or future service context. The service blueprinting technique for instance, was introduced through research initiatives (Bitner, Ostrom, & Morgan, 2008; Shostack, 1982) and a result of conceptualising service from a theatre metaphor (e.g. onstage, backstage). The blueprinting technique has arguably had more impact also in the academic community than in the applied.

When a tool is spread from design practice however, there is often less available knowledge about the motivations, underlying considerations and value than when a tool is suggested in academia. We assume that there is a value in using DW as a service design tool to facilitate collaborative design activities, but that we still need to make this knowledge explicit.

This includes knowledge about purposes for using DW and what to expect from facilitating design activities around it. This is the gap that this paper addresses by looking at several different sources. Specifically, we want to understand its role as a co-design tool from the perspective of facilitation. We do so by examining different roles as facilitators – the design student, the researcher, the in-house service designer and the consultant. We have both direct and indirect examples that help shed light on this issue.

## Theory

Service design is often understood as an inclusive activity where different stakeholders are brought together to co-design future services. In doing so, both the ways people are included and the reason for doing so becomes interesting to study. Many times, one-off tools, customised for specific ends are used in co-design sessions, many of which are understood as design games (Brandt, 2006; Eriksen, Brandt, Mattelmäki, & Vaajakallio, 2014). Blomkvist, Fjuk & Sayapina (2016), characterized DW as a design game and showed how the tool was used by a business team to prototype a customer journey based on a specific event in the life of a customer. Except for that instance, very little has been written about DW academically. With increased stakeholder involvement and engagement comes new roles for designers. Being in charge of co-design, managing people's expectations, producing meaningful outcomes and so on then becomes part of the required skillset of service designers. Considering the importance of this new design skill, often termed facilitating, remarkably little is written about it. In this section, we discuss both facilitation in service design and DW as a tool. For a more in-depth look at the connection between what is built during a DW and the participants, including how the material aspects influence outcomes of DW sessions, we refer to a previous study (Blomkvist, Fjuk, & Sayapina, 2016).

### Facilitation in service design

Facilitation is becoming a core skill for designers in new design fields. Due to the nature of Service Design, focusing on stakeholder and user involvement in the design process (Polaine, Lovlie, & Reason, 2013; Stickdorn & Schneider, 2011), there is an emerging importance of a designer today having capabilities of facilitating design activities (Napier & Wada, 2015; Body, Terrey & Tergas, 2010).

The emerging facilitator role originates in need and desire to utilize tacit knowledge, creative power, and to grapple possibilities, viability and desirability from group conversations with a broad variety of stakeholders such as end-users, frontline staff and managers (Body, Terrey & Tergas, 2010; Han, 2010). Facilitating design activities involves guiding participants in collaboratively communicating on a shared platform – to extract and move the tacit knowledge and perspectives of the multiple stakeholders to explicit (Body, Terrey & Tergas 2010; Han, 2010; Wetter-Edman, 2011). Creation of knowledge in this manner is referred to as knowledge externalization (Dubberly & Evenson, 2011). Facilitating externalization of knowledge is done in order to support focus on picturing a future state that is, from multiple stakeholders' view, superior to the existing (Body, Terrey & Tergas, 2010).

Body, Terrey & Tergas (2010), based on their practical experience, have suggested that a desirable mindset for a facilitator involves being curious and inquisitive. Napier & Wada

(2015) similarly has argued that a design facilitation mindset involves being empathic, objective and process-oriented. To summarise, existent literature on design facilitation conceptualizes the goal as the construction of knowledge via group activities supported by a shared work space. There is also suggestions for how to relate to the activity and what mindset to adopt. In this research we focus on the purposes and expected outcomes of facilitation.

## Desktop walkthrough

As very little research has been done on desktop walkthrough, a definition is far from unified. Application can take place using a variety of different tools, equipment and artefacts. The idea of a desktop walkthrough can be understood as to visualize, externalize and prototype potential service scenarios by creating, manipulating and emphasising temporal and physical movement by playing through scenarios in miniature service settings, often using LEGO® building blocks and figures. What seems to be a common denominator when using DW is the scenario, not in the sense of a design scenario but rather a backdrop, task or goal for the exercise. Examples includes “create representations of what you want this service to look like x amount of years into the future” or “something has happened to a customer and it now needs help”. Based on e.g. a description like that, the participants are invited to start building and using the desktop representation for some purpose.

The reason for DW's popularity and origin in service design related fields is perhaps related to its ability to capture some intangible, temporal, and dynamic aspects of service (Blomkvist & Segelström, 2014). An external representation of what a service situation might look like can be built and explored collaboratively using simple materials that most people can feel comfortable using. The knowledge generated by a DW is as much (and probably more) tied to the participants that use the tool, as to the tool itself.

Unlike many other design tools, the primary user is not a designer but rather a design novice – perhaps using the technique for the first time. This means that it is probably good to be reasonably sceptic about what people can accomplish with the tool – assuming one can get better at using it by practicing. We do not expect people to be expert sketchers the first time they sketch. Since the primary user is not a designer, then perhaps DW can be understood as a facilitation tool rather than a design tool. While we can often clearly define a good outcome for a design tool, it is less obvious for a facilitation tool. We acknowledge that desktop walkthrough can be used as an internal tool within a design team for instance, but in this case, we are looking at desktop walkthrough as a facilitation tool in co-design settings. We are also aware of the many connotations of co-design, but here we refer a situation where one or more groups of, mainly or exclusively, non-designers are gathered to conduct a design activity – facilitated by one or more designers. Even more specifically, we are looking at situations where the design activity involves a desktop walkthrough. However, since designers can bring together people to co-design for very different purposes, the purpose of using desktop walkthrough also varies.

## Examples of use

This section contains empirical examples where the authors have first-hand experience from either facilitating or observing DW sessions. We also include descriptions made by design consultants from a Swedish service design company during interviews conducted by one of the authors. These interviews provide an alternative view and collectively these examples provide insights from the perspectives of a design student, a UX team (through observation), a design researcher, and three design consultants. The student perspective example was the only case where the participants worked with a representation of the actual physical place they were redesigning. In all other cases, the participants built environments and spaces that were based loosely, or not at all, on actual locations.

## The student perspective

The design student's facilitating activity was part of a learning process as part of academic studies, and had the purpose of generating requirements for the most beneficial waiting room environment based on compromises between participants' takes of various personas. The activity was part of a collaboration with the Swedish Migration Agency. Two groups of administrative officials conducted walkthroughs. Each participant enacted the role of a given persona and used this knowledge to find value in creation and manipulation of a physical representation of the waiting room environment built in LEGO. A persona could, for instance, represent a child running in circles and making a lot of noise. Another persona could represent an old man who hates the mere presence of children, to create tension.

## Design researcher perspective

This DW was part of an innovation project involving representatives from various departments at a large telco company in the Nordic countries. The project was an early "innovation phase" for a scenario based on an event in a customer's life. The innovation phase consisted of a series of workshops with around 20-25 participants. The DW was conducted on day 7 of the innovation phase and 3 groups of ~4 participants were tasked with building the current "wow-experience" for different personas. The participants were urged to explore different perspectives and they were given cards with contextual cues (such as "the customer cannot connect to the Internet" or "the customer wants the next model of phone"). The cues were supposed to push the participants to consider a wide variety of scenarios. The DW was planned together with the user experience team.

## In-house perspective

This DW happened the day after the previously mentioned design researcher example. These walkthroughs were conducted at the same telco company in the Nordic countries and facilitated by a user experience team. Two service designers in the user experience team planned and facilitated the activities with the purpose of pushing the participants. One of the researchers was conducting participatory observations and providing insights based on previous DW activities. The service designers felt that the generated ideas so far were too limited and not sufficiently innovative. As introduction to the DW, the service designers showed a slideshow with futuristic concepts and asked the participants to build their future vision for the service.

## Interviews with consultants

Three design practitioners were separately interviewed in sessions lasting between 45 and 60 minutes. Two of the designers had acquired knowledge of desktop walkthrough from studies at Linköping University, whereas the last had been introduced to the tool through LEGO® Serious Play. All three design practitioners had at some point been employees of the same design consultancy. The interviews primarily focused on investigating the designers' experiences in planning, facilitating and utilizing knowledge from DW. In this paper, we focus on what they said about facilitation.

## Insights from the examples

After considering the different sources some themes emerged related to facilitation of DW, the purposes for using DW as well as more general insights into motivations for design facilitation. The results are divided into the following categories: group facilitation, goal of the activity, creating the preconditions for DW, motivating the activity, and facilitation skills.

## Group facilitation

One general insight from the examples is that facilitation in the literature seems to focus on a *designer*, while most examples we have encountered involve a team of collaborating facilitators. Some are more active in planning and creating the preconditions for the activity, some are more involved with the participants and others still are documenting and analyzing the progression to a larger extent. Seeing facilitation as a group activity means that also the facilitation part becomes a social and coordinated activity.

## Goal of the activity

Several goals could be identified in the different cases. Notably, the goals were not always to produce knowledge or design services, what we refer to here as **utilitarian** goals, but often much more related to psychological, relational or economic interests. In the design researcher example, the stated goal was utilitarian – to build a version of the current best scenario (the “wow-experience”), but both the researcher and the user experience team members felt that the participants did not challenge themselves enough and that the results were not useful from the utilitarian perspective. The next day, the service designers from the user experience team tried to push the participants to think more creatively and to be less focused on the current situation. This was an explicit goal in the facilitator group and the participants were not even asked to build a service, but rather a representation of their vision of the future. Hence, there were no utilitarian goals (as we have defined them here) but DW was used as a tool to change the mind-set of the participants.

When it comes to the consultants, the reasons for using a DW becomes even more diverse. The interviews include examples where the goal of facilitation has been to sell consultancy services. The DW is then used to illustrate what it would be like to work together with the consultants. We call this purpose **marketing**. Marketing is closely associated with the goal of **showing off** design and **educating** participants. A fourth example that can be found in the interviews is what we think of as more a utilitarian purpose: **prototyping**.

When the goal is to show off design, DW is used to meet the expectations from the participants on what it should be like to work with design. In both showing off and educating there is a value in having utilitarian goals also, in the sense that the participants should feel like they have accomplished something and that they have generated something valuable. This is also an aspect noted by consultants, that the goal may not always be utilitarian, but that the participants understand and feel satisfied with the activity. In several of the examples however, the participants have expressed satisfaction with what they have generated during a DW while the facilitators have not shared this view.

The idea behind using DW for educational purposes is that the participants should understand aspects of design work. The outcomes of such DWs are not as important as what the participants can learn about a design mind-set and see the DW as an example of what can be done in a design project. According to the consultants’ view on educating design thinking, desktop walkthrough allows for an easy way of presenting how minor changes in a scenario playthrough can affect the outcome. It could be done by playing through a scenario and replaying the same scenario adding a “what if”-premise to the context. E.g. adding a premise of “what if there was no electricity?” and playing through a scenario again.

When it comes to DW as a prototyping tool, the goals are related to the design or creation of new service elements or journeys. In prototyping, DW allows for fairly quick and easy testing of roughly defined concepts. It is an easy way of validating early ideas. Prototyping with a DW can also be used less as a way of generating, and more as a way to explore or innovate.

## Creating preconditions for DW

A scenario is one of few required elements of a DW. As facilitators, much of the work before the activity revolves around the scenario, and the material produced to support the scenario and make it meaningful. In the design student case, the personas with conflicting interests really helped one group engage in the activity and imagine interesting challenges in designing a waiting room. The other group however did not understand what to do with the

personas (despite having been instructed in a similar way as the other group). In the telco examples a lot of effort was put into creating material to push or trigger participants, but the material ended up being completely overlooked or examined only briefly. In the researcher facilitated workshop the groups were given a template to write down their insights on. However, these were not used and by the end of the DW one of the service designers had to go around and prompt the participants to fill out the templates.

Another aspect to consider here is the value of the scenario that is given to the participants. The scenario is the spark for the DW, the entrance point for the group to get started. In the student example the scenario was simply to design an ideal waiting room experience. This task was tied to one location and the participants were not encouraged to explore specific journeys or **temporal aspects** (thus deemphasising the walkthrough element). In the researcher example the groups were first expected to build a journey based on a service blueprint. The next day they were asked to build their vision of the service in the future. In these examples, which the authors have first-hand information from, the temporal aspect was included in the instructions to varying degree. In these cases, the scenario was also kept static throughout the activities. In the consultancy examples however, a more active facilitation role has been adopted. For instance, in one case that is described the initial scenario was an accident and what would happen if it occurred in one location. Then, the next scenario describes the same thing happening but in another location to add variation and start thinking about the importance of location and context (in this example the goal was to understand the value of prototyping). The participants of this exercise were also to undertake a role in the DW. To create empathy between the different actors attending, you were to enact a role different to your regular. For instance, a firefighter were not to play a firefighter in the walkthrough.

## Motivating the activity

When considering DW as a design tool for co-design there are some aspects to consider from the examples examined in this paper. DW has some playful connotations that can have diverse impact on people. In the student project the participants seemed positively affected by the use of LEGO. One participant enthusiastically exclaimed “LEGO! Are you from Google or something?”. This was a DW conducted at a governmental agency and the participants probably did not have much experience from similar activities.

Another example comes from the interviews. One consultant had prepared to use LEGO for a DW but the participants refused, claiming that it was not part of their work to play games – causing the workshop to be reframed completely. The in-house consultants also encountered a situation where DW was not used by one of the groups. They simply decided to write down their vision of the future on a piece of paper instead. However, it was less clear why. They said during the group’s presentation that “we did not need to use the LEGO”. Another identified effect when using DW is that participants will sometimes use the desktop representation to explain or communicate their ideas, rather than actively try out their ideas and thoughts. The difference might seem trivial but there is a big difference between building to learn and building to express yourself, and arguably one of the main values of DW is the ability to iterate on ideas. However, as we have seen, if the participants feel like they are satisfied with the result and the activity that might be enough.

## Facilitation skills

Since the student, researcher and in-house approaches to facilitation during DWs were very hands off, this section discusses insights from the interviews with consultants. What differentiates a good facilitator is their ability to adapt to the current contextual circumstances. This means everything ranging from actively planning expenditure of time to making the most of personality attributes and abilities of participants. A good facilitator can make the most out of the situation regardless of who attends the workshop – thus, there are no attendee that should beforehand be considered as better than another. However, some participants will be slower and some will be quicker to adapt to a playful workshop setting.

Becoming a good facilitator takes practice, and exposure to new workshop settings and participant constellations is the key.

## Discussion

This research has illustrated different purposes for using DW such as outcome-focused uses such as prototyping, but also highlighting non-utilitarian aspects such as marketing, showing off design, and educating participants. Design facilitation is described in literature as a more utilitarian activity where knowledge generation and design production is central (Napier & Wada, 2015; Body, Terrey & Tergas, 2010). When DW has been used for utilitarian purposes the outcome has often been disappointing. This can be related to: expectations held by facilitators in the examples respectively, a lack of skill with the facilitators, a dissonance between what can be communicated from a DW session and the actual experience of taking part in it, or it can be related to the fact that participants often are novice users of the tool and thus lack the skill to realise its full potential.

### The facilitator role

As a design consultant, there is always a web of forces to consider when conducting co-creation sessions. One aspect that dictates a lot of choices is the monetary – the client has paid for a number of hours and it is up to the designer(s) to find the best use of that time. This makes DW a difficult choice since the outcome can be difficult to predict. At the same time, it can be a great tool for e.g. marketing purposes as it embodies a lot of qualities, like playfulness and creativity, that are associated with design. Thus, having people come in and “play” a scenario is a way to meet their expectations, show them a good time and motivate them by illustrating the value that the exercise can have. This highlights another aspect of the result: that consultants sometime must prioritize satisfying the participants over producing valuable outcomes.

The process of facilitating desktop walkthroughs includes preparation, and what this entails varies with the purpose of the activity. The interviews with consultants, perhaps counter-intuitively, indicate that less preparation is required for utilitarian purposes. The argument behind this is that when the goal is more specific, e.g. to educate, also the planning becomes more meticulous to achieve this goal. Hence, there are many ways in which DW can help create valuable input (utilitarian) for a design process, but when the goal is non-utilitarian the DW must be specifically targeted to do a specific thing. Exactly what preparations are needed for the various purposes still needs more research.

If the goal is utilitarian, e.g. to create new ideas or knowledge, the tool should include some aspect of actually walking through an idea chronologically (not necessarily from start to finish or even forwards though). Adding the temporal aspect means that ideas can be contextualised and subjected to questions about how different elements relate to each other in time (not only space). This aspect is sometimes overlooked leading to a static representation with limited utilitarian value. As a facilitator then, it becomes important to create conditions- and actively push participants, to create short sequences or stories that explore temporal aspects of the service they are working on. Much like in the consultancy example where the location of an accident was changed after a short time.

It was noted by the user experience team posterior to the DWs at the telco company that participants related differently to each other, in a positive sense. The group dynamics were experienced as different and participants showed tendencies of being relieved of their professional roles. It is plausible that the playful connotation of using LEGO influenced the way that participants in the project related to each other.

Uncertainty among participants and fear of doing something wrong is a natural effect of taking part in any activity outside one’s comfort zone. A very important part of facilitating is to prime the participants into understanding their role in the activity. This was the problem with the second group of participants in the design student example. They were not sure what to do and abandoned the exercise completely. The design consultants emphasized that

such failures are not the fault of the participants, but rather the fault of the facilitator(s). As a facilitator you must be able to adapt to new situations, something that becomes easier with more experience.

Preparing facilitation of desktop walkthroughs always includes communicating a satisfying explanation to stakeholders and participants of why DW is the tool of choice. In framing the DW exercise for participants, the use of LEGO may in some settings demand from the facilitator to emphasise its value due to the playful connotations. LEGO can also be an asset, as in the student example. Additionally, the modularity and high brand awareness are two components promoting the values of LEGO. Some participants may find it easier to focus on the conceptual design task rather than themselves, having a LEGO avatar to relate to. LEGO-avatars give some participants an easier time to “roleplay”, rather than “being themselves” implying some personal responsibility. Other than participants personally relating to avatars, using LEGO has previously been proven to mediate the construction of scenarios for the walkthrough where iconicity of LEGO-pieces (such as a tree in LEGO implying activity in a park) have guided the following outcome (Blomkvist, Fjuk & Sayapina, 2016). As a facilitator, the framing of the exercise is crucial for how it is received by participants and for some occasions it might be better to avoid LEGO all together. The playfulness can then be more easily downplayed.

### Motivating the activity

Both the user experience team members and the interviewed design practitioners considered DW as a tool for education, marketing and sales rather than as prototyping and utilitarian goals. The design student’s experiences of facilitating desktop walkthroughs is part of a learning process. This has shed light on the possibility of desktop walkthroughs not being tailored enough to suit designers’ needs in a business oriented setting. It is possible to assume that as the outcomes of DW for utilitarian purposes are uncertain, it might be a tool preferably used in an in-house design project-setting where your work is not funded externally and thus implying guaranteed value exchange. The interviewed design consultants use desktop walkthrough to promote and concretize the value of prototyping service scenarios but not as a way to actually prototype services as part of their work process. Perhaps this is due to the previously mentioned uncertainty and/or that the tool can be perceived as too playful or trivial. The reason that DW was used by the design researcher together with the telco company was an academic interest in the tool. The stakes for the researcher were low since the outcome was not important. However, during the introduction of the DW, some effort was made to make the tool sound serious. Also, the design student had little to lose and could thus use DW with little regard for failure.

There is going to be a substantial difference in what the participants have learned and what a facilitator can translate into useful design insights or knowledge. Since the participants are collectively constructing their own external representation they must coordinate and collaborate. This activity is in itself an exchange of knowledge and a source of ideas. Not all of this knowledge, nor all ideas, will be captured by the desktop representation. In itself, and even during a presentation of a DW, the result can seem kind of predictable or lacklustre. From the point of the participants however, the DW might be seen as a valuable experience which depending on the purpose of the DW being utilitarian or not could be considered successful.

While the theoretical utilitarian value of a DW can be tied to the ability for participants to manipulate physical and temporal aspects of a service, many of the examples did not include a temporal aspect. There is a possibility that the aspect of *walk* in desktop walkthrough enables specific outcomes. Having a scenario available, i.e. attributes to be manipulated and tested against temporality, may probe the outcome – however, those attributes could also be replaced with ones independent of the temporal aspect. Doing this will still meet the importance of concretizing and making abstract concepts visual by using the modularity and playfulness inherent in DW. However, doing so should maybe not be considered a desktop *walk*through. Thus, the role of the scenario may guide outcome heavily and it is up to the facilitator to understand and manage the workshop setting to preferred alignment.

## Conclusion

We have shown that the purpose of using DW often do not follow the normal logic of utilitarian outcomes. If the underlying goal of using desktop walkthrough is educating or marketing, it is more important that the participant understands the value of design methodology rather than producing contextual value from the performed scenario. In regard to utilitarian purposes of using DWs, some outcomes have been experienced by the facilitators as disappointing. The level of innovativeness has been low and the tool has not been used in a way that realizes its full (theoretical) potential. Participants do not automatically use the DW to prototype their ideas but need to be encouraged and triggered by input and challenges from facilitators.

Examples of facilitation show a variety in the motivations for using the tool and thus inform us about facilitation in general and the many different reasons designers can have for conducting co-design sessions. The paper has included a wide variety of perspectives but what is missing from this broad view is the participant angle. Future research could examine what is it like to take part in a DW activity as well as what makes the DW feel meaningful from a participant perspective. Such research efforts can be based on a phenomenological framework, perhaps leading to more controlled comparative studies where the amount and types of facilitation are manipulated. Similarly, the utilitarian output could be studied in terms of its usefulness, innovativeness, appropriateness etcetera, for a design process.

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