OPENNESS AND DESIGN PRACTICES IN ACADEMIC LIBRARIES

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ABSTRACT

This paper explores openness and its role and relevance in creating an opportunity for sustained innovation through design thinking in organizations such as libraries. There is a growing recognition of design thinking as an effective approach to innovation. Many libraries, also academic ones, seem to have embraced the approach. However, to enable sustained, and not only short-term efforts to innovate, we believe that design thinking needs to be integrated with existing library practices. Furthermore, we consider that openness towards designerly ways of working is crucial in achieving that goal. In this paper, we discuss diverse ways in which openness plays a role in design thinking led innovation, including openness to learning new skills, question and explore, acquire new values, and continually integrate what is learned with existing practices. Two cases from our research on effects of design thinking on academic library practices are used to illustrate the importance of openness in this process.

KEY WORDS: openness, design thinking, designerly practices, innovation, library.

1. INTRODUCTION

The overarching goal of an academic library is to serve the academic community by helping to cultivate, manage, preserve and expand the body of knowledge. As an institution with a long and well-established tradition, the library, until relatively recently, had little need for radical innovation of its services. Rapid technological development over the past two decades has changed this situation. The traditional operational and organizational methods were developed around the old media, i.e. information in printed form (Arms, 2014). Although library automation processes started already in mid-seventies, the Internet, and the personal, mobile devices more generally, have profoundly changed this organization and its operation patterns. These new ubiquitous digital platforms, with ever-increasing availability and mobility of information, changed something else – the academic community and its work practices, its relation to information, and consequently, its relation to the library. The appearance of disruptive technologies, such as e-books first, and tablets and smartphones later, brought about significant changes in users' behavior. Within a short time, these technologies enabled users to have access to information, including books and academic papers, anywhere, anytime. Users could now easily store and curate a large amount of information on own devices and search dominant academic databases such as Google Scholar (Kesselman & Watstein, 2005), thus creating better conditions for academic work.

Simultaneously with these developments, funding for libraries often decreased, in some cases, forcing libraries to close

(Haak, 2014). To continue serving today's and future academic community needs, in addition to defining own values and practices, the library should establish clear connections to larger institutional values, goals, and practices, also those related to the use of new technologies. In (Tenopir, 2011), Tenopir points out that in an era of decreasing resources and increasing choices, academic librarians are faced with finding the ways to capture the value of the library, and gathering evidence that helps libraries make the best choices about future directions. While the higher goals of the library remain nearly unchanged, its values have a more elusive character and are subject to societal and cultural perceptions, which in turn, are often influenced by the technological determinism. For example, the value of the library as a repository of knowledge has perhaps all too fast been diminished by the belief in the potential of digital media to take on that role, often without understanding the limited shelf life of digital technology (Haak, 2014). Already in 1996, Brand has seen the need, and value in a long term thinking, also regarding saving the recorded knowledge for the distant future (Brand, 1996).

As a space that fosters communication within the academic community, with a goal of creating and making knowledge accessible, the library may also be seen as an extension of the learning space. As such, it needs to embody different ways and modes of learning, including collaborative (Gokhale, 1995), constructivist (Jonassen, 1999) and interactive modalities (Lundvall, 2010), all of which inspire better critical thinking and increased creativity and knowledge production and all of which often involve technology. Thus, how to best follow users and their technology use and knowledge

creation patterns, has become one of the challenges for many academic libraries. Clearly, this task invites libraries to re-think their role in the academic life, and their willingness to innovate.

Many libraries worldwide have used this opportunity to think differently. To tackle the challenges, more and more libraries choose to engage in innovative processes, where instead of responding to the challenges coming from outside, they strive to introduce innovation practices at the institutional level, as described, for example, in (Pandey, 2015), as well as innovation of services (A. Culén & Kriger, 2014; Massis, 2014; Moorefield-Lang, 2014) or products. In such libraries, the usage of the library has changed, both with regards to offerings and to the number of visitors (Freeman, 2014). These increases, states Freeman (ibid.), are particularly common at libraries and institutions that have worked with their architects and planners to anticipate the full impact of the integration of new information technologies throughout their facilities. He further offers some successful examples of changes, such as the University of Southern California, Emory University, and Dartmouth College Libraries.

What is often in the heart of these changes and how does one support innovative practices within academic libraries? Some see user-centered design approach, with user participation in creation of both physical and the digital services that are needed (Casey & Savastinuk, 2006) as a way they want to innovate. Others see the innovation opportunities in enhancing user experiences (UX) as the main focus (Mathews, 2012; Rundblad, 2011; Schmidt & Etches, 2012), end-user development (Culén & Gasparini, 2013), or innovation through design thinking in a broader sense (Korbey, 2014), (Olaisen, Løvhøiden, & Djupvik, 1995; Rundblad, 2011). Whatever approach an individual library decides to use while re-considering its role and function in the community, it is evident that ideas need to be tested and refined in the field (Arms, 2014). The primary challenge for such work is that the education and the experience within traditional academic libraries do not prepare librarians for this kind of work practices. In addition to an understanding of the field work, users' behaviors, technology patterns and so on, they also need to be able to identify the opportunities, act on them, implement changes and study their results in actual use. This description is more or less how interaction designers, design thinkers, and human-computer scientist would describe their practices as, and it may be far from how library employees see their work. One obvious solution to this lack is found in multidisciplinary work. A crucial issue then, related to such collaborative, multidisciplinary work, is to mutual learning and focus on educating, through hands-on empirical work, library employees who can sustain and further build on this approach in their everyday library practices.

In this paper, we discuss opportunities and challenges in relation to openness in such organizational orientation towards innovation and introduction of design practices with a focus on cooperation and teamwork that includes users, librarians, and other stakeholders. The design in the library context is understood as a problem-solving activity internally, within the library, as well as engagement in design opportunities arising within the larger academic community. The latter creates a possibility for the library to provide exploratory design spaces (labs, hubs and like) for multidisciplinary research. The discussion is based on the case of a design thinking practices development at the University of Oslo Library, over the past couple of years. We believe that positive lessons from that journey are easily transferable, and have a potential to make libraries less vulnerable to changes in technologies, perceptions around its values and its positioning at the heart of academic life. The approach we took evolved from user-centered innovation in the context of the library as a living lab (Culén & Gasparini, 2013). The living lab was at first understood as a conceptual construct but evolved into a physical space for multidisciplinary research interactions that are supported and guided by the library employees. Simultaneously, design efforts moved from user-driven innovation to a design thinking driven approach as a consequence of this work, and realization that design teams need a broader set of skills and knowledge about library practices than those that users have, in order to make changes with lasting impact. Design thinking and design interventions were then used as the primary approach to make room at the organizational level for proto practices (practices based on prototyping of new products and services, see (Pandey, 2015)), engaging designers, library employees and students and researchers in multidisciplinary collaborative designerly practices. As mentioned, the intention of making a long-term sustained innovation also implied that some library employees need to learn to use designerly ways of working, and be able to apply it in variety of projects that the library engages in. Diverse tools and techniques, such as divergent and convergent idea generation processes, co-creating empathy, working with customer journeys, visualization, cards, sensors and gamification, are part of the design skills that are learned. This new competence creates a realistic basis for design thinking based innovation to have the impact on the library as a whole. Design interventions represent practices that spread and gradually embed design thinking as a continued innovation approach. They serve as a sense-making, problem-solving, innovation sessions in multidisciplinary settings and include, as one of the outcomes, a set of sub-problems to be further worked on, a map of implementation trajectories in its most concrete form.

Our findings indicate that the success of innovation powered by design thinking is largely due to diverse facets of openness. We have, over the past several years, studied how design thinking was integrated with existing practices at the University of Oslo Library. Recently, in a new strategic document, the University of Oslo Library has (University of Oslo Library, 2016) highlighted quality of services, openness and availability as their top three, and most central values. We discuss here the role of openness and showcase two examples from our study that illustrate how design thinking was integrated, and ways in which openness was important.

The paper is structured as follows: in the next section, we explain what we the term openness implies with regards to work presented in this paper; followed by a section on design thinking. In the subsequent section, we describe how design interventions and design thinking have been used at the

University of Oslo library. The paper ends with a discussion on the role of openness in those interventions and other lessons we learned about openness as a characteristic of design thinking.

2. OPENNESS AS A CORE VALUE

Openness, we claim, is crucial to innovation, although it comes in different forms and focuses on distinct factors that are important to the process. In the current strategy document of University of Oslo Library (Oslo University Library, 2016), openness is explicitly characterized as the core value in following statements:

1) The University of Oslo Library wishes to base their activities on openness and dialogue with university researchers, students and the community at large.

2) The entire organization shall be characterized by openness.

3) The library should actively seek cooperation, nationally and internationally, on finding solutions and creating infrastructures for innovative future services and technologies.

Given this institutional orientation towards openness, and acceptance of it as its core value, openness begins to matter in relation to innovation, also for library employees, at an individual level. The more they can understand the process of design thinking, the higher their sense of involvement and ownership, and the larger the effort and the time that they are willing to devote to it. Different forms and aspects of openness become important to innovation through design thinking. We identify, and later exemplify, five aspects of design thinking that provide a more performative understanding of openness, and as the sixth point, we highlight the importance of reflection on core values.

a) Openness to re-thinking existing services, or creating new ones. This implies willingness to *observe and identify opportunities for design* in everyday work. Points 1) and 2) of the above-mentioned strategic document are important for being able to do this, and are in direct relation to the central aspect of design thinking, user centeredness.

b) Openness to *proto practices,* prototyping practices that are central to design thinking as a process. Proto practices need to gradually become integrated with everyday library practices in order to sustain innovation through design thinking. Building and integrating proto practices happens through focus groups, seminars, workshops and design interventions.

c) Openness to be a part of *multidisciplinary team work*. When the library needs to cooperation with others, as expressed in point 3) of the strategy document, to find good solutions to problems, it is important for library employees to be open to working with others who may have a different perspectives and knowledge from diverse fields.

d) *Openness in design processes*, e.g., using diverse tools that support divergent and convergent thinking and enable broader research and wider inquiries into the problem space. The wider inquiry is important in order to be able to identify the right problem to solve, in contrast to, perhaps, the one that is immediately apparent.

e) Willingness to *implement* and put into practice the results of designerly practices. The ability to show concrete results of design efforts and follow the entire design process, also implementation and post-design, motivate sustained innovation.

f) Willingness to periodically *evaluate*, and possibly re-think core values, including openness at the organizational and strategic level.

3. DESIGN THINKING

Design Thinking (DT) is a methodology that comes from the design field and is used, not only to solve problems through design, but more generally, to change the existing conditions to the preferred ones (Simon, 1969). It can be used, for example, to change work patterns, organize work teams, question and provoke, promote change and best practices oriented thinking. It differs from the traditional conceptual design approaches by its strong user-centered focus, combined with feasibility of technological solutions and viability of business propositions that it results in. Rather than trying to solve the problem well, focus is on trying to identify the right problem to solve. This often requires taking a holistic, ecological perspective. Clearly, opening up the problem space, makes for increased complexity. Empathy with users is part of the approach and is important especially when users are not instrumental in the design process (Gasparini, 2015). DT approach was used and supported since the early 1990s by various designers, scientists and design agencies, such as IDEO. In 2005, the approach was given a further boost with d.school (School of Design) at Stanford University that helped to establish DT as an innovation strategy. The approach was embraced by management and adopted as part of the corporate strategy in many organizations (Martin, 2009). This has triggered a debate about its value, especially because it seemed to be accessible to designers and non-designers alike (Leavy, 2010; Brown, 2009, 2009; Martin, 2009). Despite the fact that, in theory, anyone can become a design thinker, we do not find practical evidence that it is so. In the literature, we find many examples of how design-thinking processes gave good results when professional designers guided processes (Brown, 2008; Brown, 2009a). A limited number of papers are concerned with DT in novice teams, e.g., (Seidel & Fixson, 2013), or with non-designers familiar with design thinking, such as design researchers (Culén et al., 2016).

In summary, the following aspects of design thinking are often brought forward as essential:

- *Empathy with users* is regarded as critical to creating solutions that meet users' needs

- Careful *choice of the design team,* in accordance to competences and knowledge that is needed to fulfill the design process successfully, needs to be made. Participation of the leadership and management is desirable.

- Use of the *divergent and convergent thinking* to broaden the problem space and get an understanding of its complexity, but also be able to converge towards a set of possible solutions.

- *"Rapid" prototyping* - the use of simple models, drawings or pictures that help communicate ideas so that the whole design team may develop common understanding of concepts that they work with. In service design, there are often no prescribed models to follow. Rather, one works with tools that are generative and visual in their nature, such as customer journeys and touch points (key concepts in service design).

- *Test and evaluate ideas* quickly and make room for errors. *Failing cheap and early* is valuable.

- Use *abductive thinking,* or synthesis, to arrive to some optimal solution

In spite of many reported success stories with DT, there are some limitations and concerns worth mentioning (Collins, 2013; McCullagh, 2013; Nussbaum, 2011). The criticism is based on the fact that DT processes are often chaotic, as is usual with creative processes. It may be hard to accept this messiness at first, but if the organization chooses to accept discomfort in the beginning, it gradually gets the biggest dividends from the process. Nussbaum describes this as follows: "*From the beginning, the process of Design Thinking was a scaffolding for the real deliverable: creativity. But in order to appeal to the business culture of process, it was denuded of the mess, the conflict, failure, emotions, and looping circularity that is part and parcel of the creative process. In a few companies, CEOs and managers accepted that mess along with the process and real innovation took place*" (Nussbaum, 2011).

Other researchers have reported additional challenges in implementing DT in organizations. Carlgren et al. (Carlgren, Elmquist, & Rauth, 2014, 2016) point out seven challenges that they observed related to implementation of DT in large firms: "*misfit with existing processes and structures; resulting ideas and concepts are difficult to implement; value of DT is difficult to prove; DT principles/mindsets clash with organizational culture; existing power dynamics are threatened; skills are hard to acquire; and communication style is different.*" (ibid)

3.1. Design Interventions

A design intervention may be described as a proven and planned action with the purpose of making a change through design. It implies an active undertaking to make things happen that otherwise would not have happened (Löwgren, 2013). For example, a design intervention could aim to change the way in which a specific product or service is used, or how it looks like. To ensure that results of an intervention become meaningful, it is important that intervention initiators make preparations, execute the action and follow-up. Results of interventions should become visible or known, and guide future efforts. That is to say, each subsequent intervention needs to show that what was learned from previous interventions is taken into account when planning for new ones. Thus, design interventions provide an action-based framework to engage people in participatory design action.

Design interventions are mentioned here as we interpret them as efforts to engage in a design practice. We have seen numerous cases of design interventions during our studies of how design thinking, and openness specifically. Some had to do with changing physical spaces, so that, for example, they could be used in multiple and flexible manner. Others, used mixed physical and digital design, as for example, science fiction books being brought to one place in the library, but then also marketed as something special, by combining designed presentation of the collection on the multi-touch table and the possibility to view films or play games made adapted from books, e.g., The Martian, Ender's game. Lastly, there were digital interventions, for example, organizing an online service for PhD students called PhD on Track. Such interventions made efforts visible for the organization, and, possibly, also contributed to increased openness to DT.

3.2. Proto Practices and Workshops

Discussing sustained reflexive and collaborative transformations of work practices, Pandey proposed to transform design thinking practices into proto-practices (Pandey, 2015), by integrating novel (for library employees) designerly ways of working with the existing ones. Due to the largely tacit nature of proto practices, collaborative workshops involving multidisciplinary teams are suggested to support integration of design-thinking practices. Workshops involve participants, in small groups (3-4 participants), in design thinking activities. Based on our experience, we find that a one or two-days long workshops work best. The first half of the workshop time is used to understand users, context and underlying issues as thoroughly as possible. For this work, different approaches are used, such as ethnographic observations, brainstorming, role-playing, interviews, photo-safari, mood boarding and diverse mappings. The second half of the workshop is dedicated to rapid prototyping of different possible solutions, using synthesis to combine best parts of different propositions to provide a new, optimal solution.

In the next section, we describe two cases that exemplify the approach that we described above. We have chosen these two cases among approximately 25 workshops and design interventions that were carried out in order to introduce design thinking and support emergence of proto practices. We believe that they illustrate well aspects of openness that we have discussed in Section 2.

4. ASPECTS OF OPENNESS: TWO CASES

4.1. Case 1: Planning the Future Law Faculty Library

This was one of the first workshops held during our research study that started in 2013. It was a combination of a workshop and a seminar, the latter because DT was new for the Law Faculty library employees and needed to be introduced. We opted for one and half day in the countryside, right outside the capital of Norway. The workshop part was concerned with plans for the future Law faculty library. The tasks made for the workshop focused on user centeredness, i.e. knowledge about and empathy with users. The tools and methods used at the workshop were those frequently used in service design: making and discussing user journeys, primarily future journeys in the new library. Creation of journeys was supported with a card set, as a thinking and reflecting tool. Cards were a mixture of a set described in (Clatworthy, 2011) and cards made for the workshop, containing images relevant for library services, see Figure 1. The tasks included also reflection over the forthcoming plans for moving the main Law Library (together with the entire Faculty of Law) to a new location, and merging it with seven small law libraries. This set of tasks aimed to use the power of DT to support divergent and convergent processes around how to design future services for the new location, from an ecological perspective. Some of the questions that we wanted answered were: Are there new kinds of services that could make the large, merged law library more attractive? How to make patrons visit the new law library? How to promote these new services?

Figure 1. Service design process, using service design cards and large paper to create user journeys.

Source: Gasparini, Håvard Kolle Riis

Counting eighteen participants, including the director of the Law Library and the director of the University of Oslo Library, almost all the employees of the library were present at the workshop. To support an emphatic understanding of a user and take user's perspective, we opted for discussions of experiences with a service that was often experienced as difficult, and that all present used and could discuss as users. The intention was to show the participants how the view of a service may differ from a provider's and user's perspective. The discussion then switched to how they see users' experiences in the Law Library. One example brought up was that of an old-fashioned service desk, that one of the librarians really wanted to keep also in the new library and cared about this a lot. In contrast, the possibility of putting a modern self-service desk, with employees available for help at any time, was also discussed. The participants were requested to look at both these possibilities from the users' perspective, and as librarians. Differences in type of services that these old and modern desks supported were also discussed, both negative and positive aspects of both possibilities. The insights gained by working on this task, were used later in the workshop to converge towards a possible solution for the front desk services in the future library.

Furthermore, the participants used service design cards to envision three user journeys focusing on services that are relevant for researchers and students of law. The participants worked in groups. The user journeys that groups proposed covered the use of both digital and non-digital services at the library building. For example, finding law library resources, searching for and booking a study room at the library, or visiting the main Law Library to deliver and discuss a reading list for any given course. In the second phase of the workshop, the participants discussed the same services in relation to the new library.

The results of the workshop were positive. Several new services were envisioned and plans were made to actually implement and test them. One of those ideas that was liked a lot was an app, a package of services for researchers, see Figure 2 a), that proposed new signage, an easy-to-get-in-touch service, and a wall in the library with the latest published research papers. The overall focus on design-driven solutions, contributed to hands on experiences of designerly ways of working and provided an approach to understanding user expectations, experiences, and satisfaction. We could observe that methods were suitable and opened for discussions in appropriate ways. Some of the participants were so excited

about the design process that on the second day, they went straight to the meeting room, even before breakfast, just to change user journeys that they made the day before. The long-term effect of the workshop was also significant. The leadership, along with employees was exposed and actively participated in design activities. This implies that a common language was developed around such activities, participants learned the terminology used and experienced how the participation could change their views of some services. Some of the participants liked the approach so much, that they have appropriated and continued to use the same and developed similar tools for use in other library contexts.

4.2. Case 2: Funding Cuts

The second case chosen, a workshop that was one of the last ones, was organized at the end of 2016. The problem that the workshop focused on was related to funding cuts for the library, announced by the leadership of the University of

Oslo. In addition to funding, the leadership proposed some structural changes, such as co-locating a group working with digital library services and a group working with information literacy support for researcher and students, and turning these into a new University department, outside of the library. The latter aimed to increase the quality of teaching and education by organizing and co-locating groups across the campus that could contribute to this task. On the one hand, being chosen to work on this task, was perceived by the Library leadership as rewarding, as it shows the University Leadership's trust that the library can accomplish this important work for the University of Oslo. On the other hand, the organizational changes could have a significant and unforeseen impacts on the library.

As a reaction to the two described issues, the management organized a one day workshop. The goal of the workshop was to address, understand and react to possible changes ahead. The twenty participants were all leaders of diverse sections of the Library.

Figure 2. a) Prototyping user journeys b) One group proposed some strategies that could make the library fail in responding appropriately to new conditions.
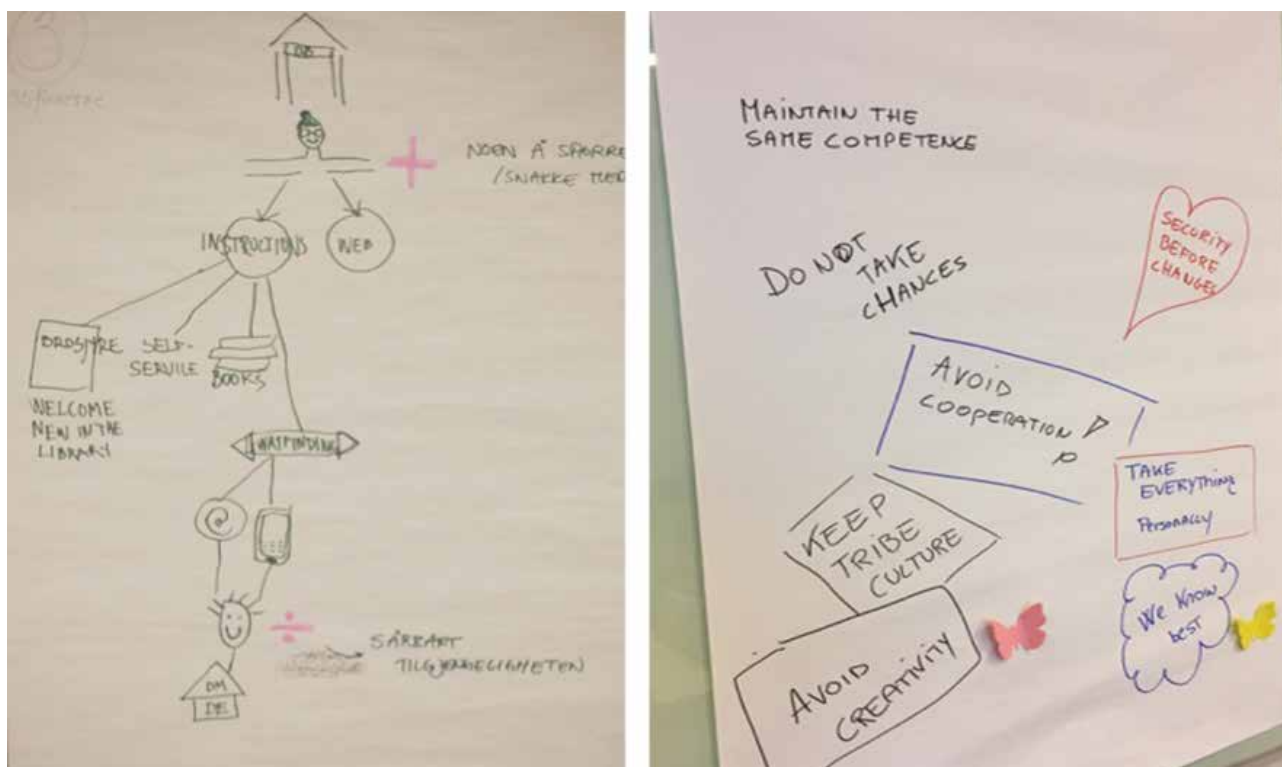
In the first phase of the workshop, after some short introductory presentations, the design thinking approach was used. In this case, we started by using the affinity mapping method to bring to the table all the challenges and advantages related to the proposed changes. When all the post-it with possible changes were grouped, several main categories were identified by the participants. While some categories had focus on competences that the library staff should acquire in order to be able to accomplish the given task successfully, others addressed issues regarding the tension between the paper-based and the digital library, learning

spaces in the library, communication, and dissemination of information literacy, and, finally, how the changes would affect terms and conditions for Ph.D. students.

The second design task was new for all. The task was inspired by a presentation that one of the leaders listened to at the service design conference in the Nederlands (SDGC, 2016), where he was a participant. The method is called "*Sabotage*" and its goal is to emphasize actions that bring about negative results, for example, what makes an organization fail to achieve their strategic goals. Based on this new method, the task presented at the workshop was:

"*What shall the University of Oslo Library do to fail to adapt to new conditions?*" This inverse task revealed new interesting factors for where the library could be better. For instance, as Fig. 2 b) shows, "*do not take chances*" and "*we know best*" are examples of the way the library should not act, if it wishes to adapt to new conditions. One of the lessons learned from this activity is that some of the negative points brought up are easy to revert to, if one does not pay keen attention to them. Interesting points to bring up here are that the task "Sabotage" was proposed and implemented by one of the leaders and show that the leadership pays close attention to methods to understand issues and is willing to experiment.

The third task used the now familiar user journeys. Two groups had to work with an incomplete user journey that they were to complete with touch points related to needs for PhD students in becoming researchers. The remaining two groups worked with similar user journey, where users were not PhDs, but master students that needed to complete their master studies. The master students' journey started from the very first day at the university, and ended at the moment when the master thesis was delivered. With insights gained through previous tasks, all four groups worked on discussion how adding or removing touch points and services they represented, the participants gained a deeper understanding of services that are needed to support PhD and master students in completing their degree. The goal was to give relevance and value to each of the touch-points, add granularity, and understand the effects that suggested services would have on the library. The latter is important as even just prioritizing one service over another has an effect on how the library works. The workshop concluded by summarising all insights, and concretizing future plans of actions related re-structuring of the library and funding cuts.

4.3. Discussion

The two presented cases have been chosen as cases close to the start and to the end of our study of how openness influences uptake of designerly practices, transforming them into proto practices. At the start, library employees needed to be introduced to the language and practices of design thinking, and this was usually accomplished through seminar presentations, combined with workshops for hands-on experiences. The second case demonstrates that no such introduction was needed, and moreover, that the library leadership could also now chose and add new tools and methods to proto practices. Proto practices are characterized by overlapping of the new and old ways of doing things, and so the Case 2 illustrates this point. Both cases demonstrate how the library could use DT approach to influence their culture regarding innovation, making structural changes within organization and designing products and services. In addition, both cases show that the organization was able to learn from each design workshop or intervention and bring the new knowledge and competence to the next project. The use and adaptation of the new "Sabotage" service design method by the library, shows openness to using new design methods within the organization, and also shows how this new method gets integrated with already accepted methods and practices.

By giving participants the opportunity to work as designers in a workshop setting, we were able to observe to what degree participants are open to the use of different tools, such as cards, methods, such as diverse forms of mapping. In presenting diverse tools, methods and even tasks, we always left open room, such as using incomplete journeys and asking for completion by participants. In the process, attention was paid to openness towards building empathy and understanding of users' perspective.

The use of DT practices such as design interventions and workshops had the effect of preparing the library for understanding changes that were to come, also allowing for wider discussions and broader perspectives on own work practices. This, in a way, helps establish reflexive practices (Schön, 1983) at the organizational level. Being reflective allows learning and maturing process (ibid). Going back to the strategy document mentioned in Section 2, and re-visiting of organizational values in Section 3, we think that these two cases illustrate that openness indeed is one of the core values, not only on paper, but also in practice.

Our findings from the second case show that users are taken seriously and that ways of bringing user experiences in discussions are important. Although the context and goals of the meeting in Case 2 were urgent and important for the library, the empathy for the user and understanding of the user position were not put aside. Openness to rethink services, re-design them or create new ones, is present in both cases, and evident in their descriptions. We also found that the framework presented in this paper, in Section 2, was helpful in discussing the performative understanding of openness in designerly processes. For instance, participants' openness to design processes (workshops, seminars, and interventions) implied active and engaged participation, not just attendance.

In fact, the leadership of the library gained confidence in the design methods to a degree that they were willing to use them to tackle transitions to new buildings, demanding users and use contexts, but also to tackle important issues such as funding cuts, where it is not immediately clear that design thinking can be helpful. Both cases witness library's willingness to both design and implement better services, although the latter may take some time. Conceptualizing and prototyping new services was an important outcome of workshops in both cases. However, focusing on and building awareness of users' needs, was an equally important part of the process. The library has gained an understanding of how to leverage the knowledge of users as a competitive advantage.

CONCLUSION

The paper presented a framework to understand the role of openness in the uptake of designerly ways of working in the academic library. Two cases of library projects were design thinking was used as an approach to innovate were presented. We have highlighted some points that illustrate where openness was needed or how it was manifested in presented cases. Although we worked in the context of sustained innovation within an academic library, we believe

that recognizing the role of openness and articulating it clearly (as well as re-thinking this articulation periodically) at the organizational and strategic level, is generally important for the success of approaches such as DT. Furthermore, employees' openness to learning designerly language, experiencing methods and tools in relevant, real life projects and accepting them as part of the everyday practice, is also central. Doing so does not imply that all library employees become designers, but that they recognize the value of DT and its potential to contributed to efforts of building sustained innovation practices. DT approach in itself already fosters openness to users' perspective, divergent thinking and use of method and tools that support creativity. These points, together, are the anchor points of the proposed framework.

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