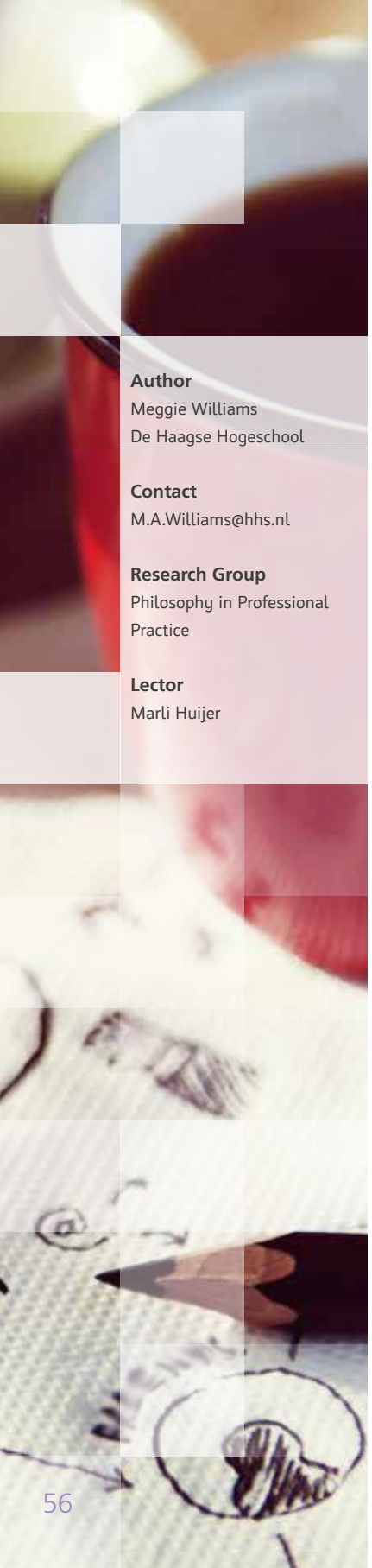
JUST BUILD IT!

ARGUMENTS TO SUPPORT THE PRACTICE OF BUILDING MODELS EARLY IN THE SERVICE DESIGN PROCESS



Author
Meggie Williams
De Haagse Hogeschool

Contact
M.A.Williams@hhs.nl

Research Group
Philosophy in Professional Practice

Lector
Marli Huijer

Abstract

From November 2013 till January 2014 a minor 'Smart Life Rhythms' was taught at The Hague University of Applied Sciences. In the minor students used service design methods to develop solutions for improving life rhythms. Reflection on the minor produced the insight that building physical prototypes early on in the design process was key to success. Further discussions with colleagues and a literature review gave more arguments for the motto 'Just build it' – an encouragement to build simple physical models in the early stages of the service design process. Building these simple physical models is not just advocated by educators and in line with service design principles such as being iterative and user-centered. In his book 'the Craftsman' (Sennett, 2009) Richard Sennett provides us with more fundamental arguments regarding the value of 'making things'. On top of the added value to the design process in itself, simple physical models are a tool for engaging both clients, users and students in the design process. So get out your glue gun and start building!

JUST BUILD IT!

Arguments to support the practice of building models early in the service design process

Testing experiental knowledge from a minor

The research group Philosophy in professional practice of The Hague University of Applied Sciences is involved in the theme of Life Rhythms, especially related to 'The New World of Work' (Gates, 2005). Life rhythms are also important to designers which is illustrated by the fact that very first book published by platform for creatives 99U was called 'Manage your day-to-day, Build your routine, find your focus and sharpen your creative mind'(Glei, 2013). The research group supported the program of Industrial Design Engineering in developing the minor Smart Life Rhythms.

The minor is a nine week project where students apply service design methods to develop solutions for professionals to better align their life rhythms in the new world of work. The evaluation of the minor suggested that building simple prototypes early on in the service design process was a key factor for success. Discussions with colleagues confirmed this experiential knowledge. A literature review was conducted to find out if there is a theoretical basis for this experiential knowledge. This article first introduces the field of service design and the minor Smart Life Rhythms and then explains the experiential knowledge and the literature review to conclude with a discussion and recommendation.

The field of service design

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explains the experiential knowledge and the literature review to conclude with a discussion and recommendation.

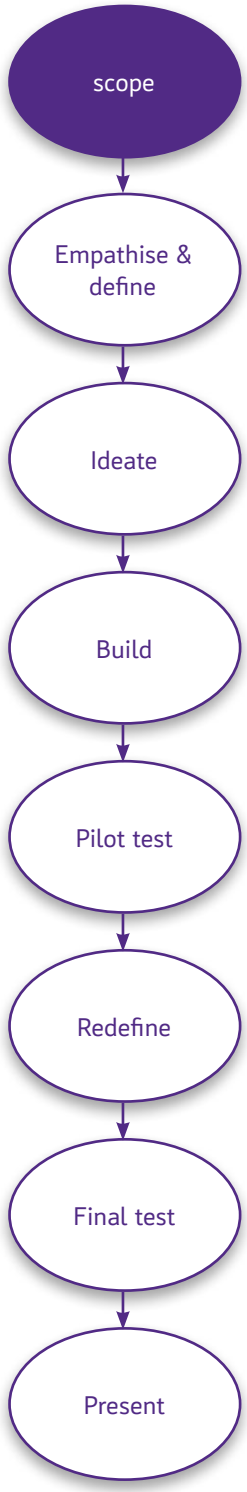
The field of service design

The development of the field of service design from the field of product design is quite recent. The first service design agency of the Netherlands, 31 Volts, started up in 2007 and in 2008 the first global conference of the Service Design Network, an institute for connecting service design expertise, was held. The Service Design Network (2015) defines service design as 'The activity of planning and organizing people, infrastructure, communication and material components of a service in order to improve its quality and the interaction between service provider and customers. The purpose of service design methodologies is to design according to the needs of customers or participants, so that the service is user-friendly, competitive and relevant to the customers'. Or in the words of 31 Volts (2014): "When you have two coffee shops right next to each other, selling the exact same coffee at the exact same price, service design is what makes you walk into the one and not the other, come back often and tell your friends about it."

There are many publications on the principles and methods of service design. The five basic *principles* of service design according to Stickdorn and Schneider (2011) are: user-centered, co-creative, sequencing, evidencing and holistic. These principles point towards the values and viewpoints that are important to service designers. Apart from these values and viewpoints service design is also characterised by the *tools and methods* that service designers use in their process such as personas, customer journey maps, stakeholder maps and service blueprints.(Stickdorn & Schneider, 2011) And where the product design process can be characterised by diverging and converging (Buijs J. & Valkenburg R. 1996), the service design process is characterised by being iterative, a concept gets refined and detailed by testing it with (potential) users.(Stickdorn & Schneider 2011, 31 Volts)

The experience from Smart Life Rhythms

The service design project that the students carried out during the minor was phased as shown in figure 1. The phases are based on the service design principles and building and testing starts early in the project to allow space for iteration. (The first models are made during the ideate session) The phases were proposed by Hanneke



Hövels, service design professional and co-founder of the minor together with Meggie Williams. During the course of the minor some doubts about the phasing arose. Iterations are fundamental to the service design process, but was it a good idea to already start building and testing with users when there had been so little time for research beforehand?

Upon reflection after the minor it became clear that actually building a solution early on in the design process was crucial to the success of the projects. After scoping and defining the project we had a ideation (idea generating) session where students were pushed to make physical models of their ideas. There were four project groups; two groups really got into building straight away, one group started building only after being pushed by the coordinators and the last group got stuck because they thought they could only start building after all the details of their concept were worked out. Which of course didn't happen very quickly as there was always something more to discuss.

One of the groups that really got into building had chosen the target group of creative professionals who often have a need for inspiration. Especially freelancers don't have colleagues to talk to and go online for inspiration and before you know it you are one hour into Facebook and you're not really inspired. The group's first idea was to build a website or app with dedicated inspirational content. But when they got into building and were required to also build a more extreme idea they came up with a hole in the wall where you can you come to push a button, get inspired and then go back to work. Figure shows their first version, just a cardboard box with a hole and an iPad in it. The students got so enthusiastic about it that they decided to abandon the idea of a website or an app. Figure 3 shows a later version of their solution. The hole in the wall and the solution of the other group that got into building early on ended up as convincing designs that received good grades. Whereas the two groups that kept postponing making physical models barely managed to scrape out a pass grade. That could have just been a reflection of the qualities of the group members. However during the evaluation of the minor by the lecturers we saw two common beneficial factors in the groups that had built physical models. On the one hand the building of the physical model made students aware of many more details of the actual use than just talking on a conceptual level. And on the other hand the physical models elicited more and more detailed reactions from the users during the testing thus giving more feedback to be used for improvement.

Reflecting on the experience of colleagues

So the actual building was very important in the minor but was that a coincident or would it also apply to other (non-service) design projects? Further discussion with colleagues reinforced the idea that making physical models is very important. Lenny van Onselen, lecturer in Industrial Design Engineering, led a 2-week design and innovation course as part of a The

Hague University of Applied Sciences summer school in 2014. The course was attended by students from a wide range of graduate programs such as business studies and chemistry. As the design process was new to them, they found it hard to get into it and apply the methods that they were being taught. “But once they started to build things, making stuff, they really got into it”(Onselen L. van, personal communication September 30, 2014). Once they started making physical shapes, once they started to actually get a feel for what they were working on and what it would look like and how they could deal with it in the end, they started to get enthusiastic and really got into the process and delivered good results. For design novices the use of your hands seems to enhance the process that’s going on in your head.

Further enquiry was made with Caroline Wolderling, team leader at Industrieel Produkt Ontwerpen (the Dutch language program for Industrial Design Engineering) “We are also trying to get our students to make less use of Solidworks (a computer drawing program for designers) and build physical models more. When students get good at using Solidworks they love it because you can easily draw a 3D model that looks really impressive. However when that model actually gets build, we often find that the dimensions are not working well in real life or that details are in the wrong place or aren’t functional.” (Wolderling C. personal communication September 30, 2014)

Building Craftsmanship

That last remark immediately connected to a great source for supporting literature. In The Craftsman (2009) Richard Sennett uses the example of Georgia’s Peachtree center, a vast complex of offices, shops and hotels. The sidewalk cafés in the center looked great on plans but in reality don’t get many customers from late morning till late afternoon because of the sweltering heat. Sennett relates that back to the fact that the building was only ever drawn on the computer and not by hand. On the computer you can get a simulation of the natural light and resulting heat but only if you ask for it. When drawing by hand you are envisioning the space as a whole, including the natural light. I will use three of the key elements of Sennett’s thoughts on craftsmanship that underscore the importance of building models in the service design process.

Let’s start with the connection between the hand and the head or the relation between making and thinking. Working with your hands creates new connections in your head. So it is not simply that by making a physical model it is easier to fully see and evaluate what we are working on, it also engages our mind more in the process than if we only would be discussing or describing our solutions. The hand-eye coordination engages more than merely the physical movement part of the brain. This finding is in line with the experience from the minor.

Craftsmanship is further characterised by the cycle of problem-solving and problem-finding. Craftsmen don’t see a problem as a nuisance to be fixed but as an opportunity to develop their skills both in finding the problem and in solving it. Caftsmen will never make identical products like a machine but keep honing their skills to attain higher levels of quality. This cycle of problem-solving and problem finding is reflected in the characteristic of service design that it is an iterative process; you build your first concept, test it with users and use the test results to develop the next level concept.

Material consciousness is the third aspect of craftsmanship and it might not seem that clearly related to building models for service design. When you think of a violin builder it’s obvious he has to be familiar with the wood and the grain and how it bends and how it reacts to environmental conditions in order to be able to work with the wood. Service designers work much more with time and space, intangible materials. But it is in fact by embodying time and space and making them tangible that the craftsmanship of the service designer develops. Typical service design methods such as experience prototyping are a way of making the intangible tangible. We can also recognize this concept of craftsmanship in the way 31 Volts describe their skills: “Whether it is empathizing with people or visualizing a business model: we know how and when. As a service designer you are a master in choosing the right tools for the job and you are able to get the best out of them.”(31 Volts, 2015)

Building Communication with users

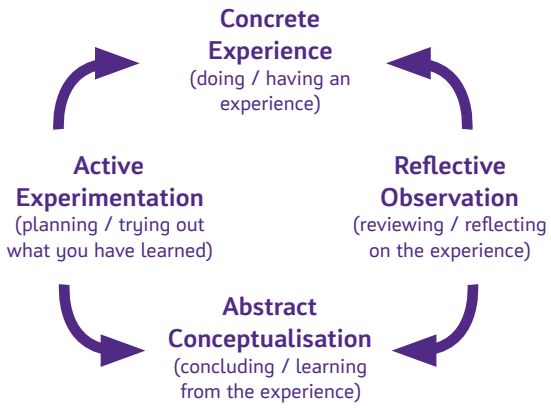
The service design principles of user-centered and co-creation point towards the dialogue with users and other stakeholders. Physical models help facilitate the dialogue with both clients and users. In service design, user testing is not meant to validate the design but to get input for the further development. Physical models elicit much more detailed user reactions than mere descriptions of the concept would. This is illustrated by the image in figure 3. In the minor a second version of the model was built and other students were invited to test it. The big red hands on the side are designed as a visual clue for the user to put his hands there. However none of the test users actually put their hands there. This was very direct feedback that immediately was used in the iteration process towards the next version model.

Building Communication with stakeholders

In larger companies, innovation projects (both service design and other innovations) are often organised along the lines of a stage-gate process. After completing a stage of the project there is a go/no go decision on whether or not to take the project a step further. As the project progresses more information on the desired outcome and the expected costs becomes available to inform the go/no go decisions. Using physical models of the desired end result can also help to engage the decision makers in not just saying go or no go based on costs or other metrics but having a dialogue on what the desired end result should be. Also when working for external clients physical models are a great way of engaging the clients into a dialogue on the desired end result.

Building Learning

When teaching students about the service design process there is another argument for building physical models early on in the process. Kolb's theory on experiential learning (1984) gives a model for different modes of learning related to experience. The model is visualised as a cycle in figure 4. According to Kolb's learning cycle the ideal learning process goes through all four of these modes in order for learning to be complete. Most students attempt to use all four approaches but tend to have a preference for a certain half of the cycle. Educators can apply the model by assessing the preferred learning styles of their students and adapting the teaching methods to accommodate the preferred styles while keeping attention to encourage students to complete the full cycle. Building physical models early on in the design process accommodates students with a preference for active experimentation and concrete experience. When the physical models are used in an iterative process, all phases of learning are being applied and the cycle of learning is completed.



Discussion

To a product designer the encouragement to build physical models early on in the service design process might seem superfluous - too self-evident to make a point of it. Of course you must make models, you always do. From the experience at Industrieel Produkt Ontwerpen we see however that even product designers can get caught up in virtual models. And as service design is becoming a field in it's own right, it is also attracting practitioners from other fields than product design. Service design novices with a background in IT, finance or public governance will need some encouragement to take the step to pick up scissors, cardboard and glue gun.

Craftsmanship is often seen as the domain of people that make things, artefacts. Services are intangible, so it might seem a forced fit to connect the two. However in The Craftsman (2009) Sennett does not restrict the field of craftsmanship to 'makers' as he includes software programmers and nurses as examples of craftsmen and women. Therefore it seems reasonable to apply the characteristics of craftsmanship to service design as well.

Kolb's model has received quite a lot of criticism. The critique however is not so much aimed at the model for learning but at the theory of learning styles that is derived from the model. The practice of trying to characterise students' learning styles and adapting education to their style is criticised for being arbitrary and ineffective. The learning cycle is however widely used as a model for complete learning and most educators will agree that hands-on experience is important to complement theoretical and abstract learning.

Building Conclusion

There are solid arguments both in an experiential and a theoretical sense that support the idea of building physical models early on in the service design process. Physical models can be really simple as their main role is to communicate. Basic materials such a cardboard, markers and a glue gun go a long way to building great models. That's why I propose that service designers share the motto to "Just build it". ■

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Samenvatting

Van november 2013 tot januari 2014 werd aan De Haagse Hogeschool de minor Smart Life Rhythms gegeven. In deze minor leerden studenten om met de methodieken van service design oplossingen te ontwikkelen voor het verbeteren van levensritmes. Bezinning op de minor bracht men tot het inzicht dat het vroeg in het ontwerpproces bouwen van fysieke prototypes essentieel was voor succes. Verdere discussies met collega's en een literatuurstudie leverden nog meer argumenten op voor het motto "bouw het gewoon". Het bleek een aanmoediging om eenvoudige, tastbare modellen te bouwen in een vroeg stadium van het servicedesignproces.

Het bouwen van deze eenvoudige, tastbare modellen wordt niet alleen aanbevolen door onderwijsmensen, het is ook in lijn met de principes van het service design – zo is het een herhalingshandeling waarbij de gebruiker centraal staat. In zijn boek The Craftsman (Sennett, 2009) betoogt Richard Sennett bovendien dat "dingen maken" op veel meer terreinen meerwaarde biedt. Niet alleen op het gebied van het designproces zelf. Ook als het gaat om het betrekken van zowel cliënten en gebruikers als studenten bij het ontwerpproces, zijn eenvoudige, tastbare modellen van onschatbare waarde. Dus pak je lijmpistool en begin maar met bouwen!