Individual UX portfolio

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Introduction:

UX has always been something I have found important, but had trouble properly implementing in my projects. In this portfolio will display and reflect on the things I have learnt regarding UX in the past weeks, regarding the concept and practice of UX, UX in design as well as how I plan to utilize this knowledge in the future.

OVERVIEW OF CONTENTS:

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1. PERSONAL LEARNING GOALS

I have always found the user experience to be an important aspect of design. You can design something amazing, but if the experience of using the product is bad, or worse than competitors, people won't be using your product. I'm fascinated by the underlying thoughts of design decisions in products, and what little things can have an effect on the UX.

Throughout my bachelor I have made attempts at improving the UX of my designs. Usually this was done by taking the existing design or prototype, going through the steps of the experience to find areas of improvement and then coming up with ways to improve them. I often did this based on gut feeling or research recommended to me by peers, which felt quite shallow.

I wanted a deeper foundation of knowledge on UX, its definition, methods for designing it and the ability to recognize potential improvements in my designs so that I may consult and apply this knowledge in projects to come. The purpose of this portfolio is to serve as a summary of this knowledge, as well as other insights that I have acquired in this course so far.

2. UX DEFINITIONS AND DESCRIPTIONS

When searching for a definition for User Experience, Oxford dictionary defines it as "The overall experience of a person using a product such as a website or computer application, especially in terms of how easy or pleasing it is to use"[16]. While this definition gives an idea of what UX is, it also leaves a lot up for interpretation. The user experiences white paper[12] tries to go into more detail regarding what UX means and how you can design for it.

As a phenomenon, the white paper defines UX as an experience of using a system, not only actively but also passively (such as observing other people use it). It is unique to any individual and influenced by a range of things including past experiences, sociocultural context or the user's interpretation. While the main user experience will be experienced during actual use, factors before and after the use of product also define the outcome of the experience[12].

While this does define UX further, the definition is still very open. Making one definition for UX is hard, as UX itself is an umbrella term for the many forms this experience can take. Some even see it as the culmination of every aspect of a product. Technology, business and design all come together to form UX. This view can be seen in, for example, studioAum[1].

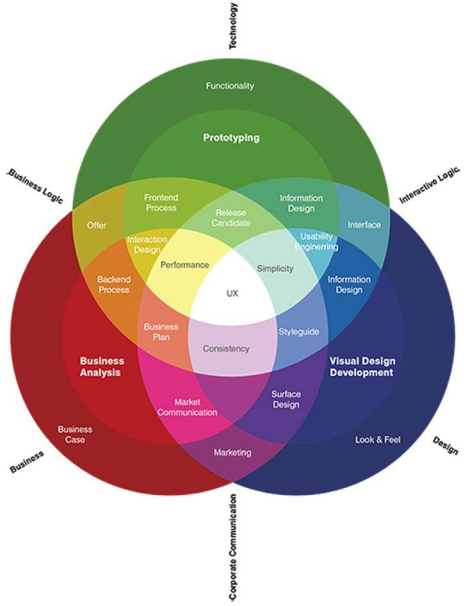

Figure 1: StudioAum UX map

And this is a view I feel we can really get something out of. I see UX as a black box. It's incredibly complex and we have no real way of knowing exactly how to control it. We do have variables that influence the experience, and methods to increase the effects of these.

Marc Hassenzahl describes experiences as "meaningful, personally encountered events". He focuses on the memories of the experience rather than the moment by moment experience, as the memories last much longer [7]. He also uses this important keyword, meaningful. A product is meaningful, if it has value to the user. Hassenzahl explains how your product should be made with this value in mind. You should not only look at what you want to design and how you want to achieve that, but also why this will have value for the user, which will create a meaningful experience[8]. This notion of value is also visible in Sokolowski's User Experience Wheel, where it is at its core.

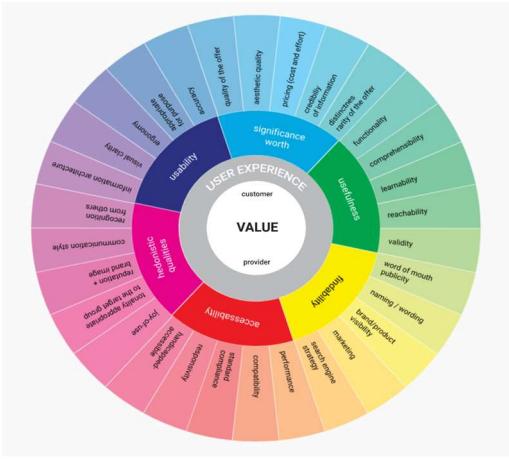

Figure 2: Sokolowski's User Experience Wheel

So when you have a product that holds value for a user, there is potential for a meaningful product, and by extension meaningful experiences. We can then use this overview of factors to improve the UX throughout development.

3. WEEKLY ACTIVITIES

During the first week of the course I was introduced to a lot of new theories regarding UX. I was challenged to think about what my stance on UX was, and what I wished to learn in this course. I realized I had hardly put much thought into these topics before, mostly relying on my own gut feeling and experiences. The UX of my designs used to be a bit of an afterthought, while it should be a driving factor throughout the design process, taken into account in nearly every decision.

I made it my goal to be open minded about the course material and find parts that resonated with me, so I would

be able to consult this material in the future. I also wanted to actively think about how I could apply this knowledge.

I struggled getting through all the reading material when trying to read it on my computer, so I decided to print it. This approach allowed me to easily take it with me when traveling and read whenever convenient, without stressing my eyes. It also helped me to organize the papers in interesting ways, putting papers together I felt had links or overlap.

In the second week we discussed empathy, as a phenomenon but also as a tool for designing. I had done projects on the topic of empathy before particularly in the field of emotion recognition, but the idea of using empathic skills as a designer was new to me.

Through my study I had come across methods like the empathy quotient before, which indicated I have an above average level of empathy (62). Especially my ability to put myself in the shoes of another person is quite high, my cognitive skills. I often work from a third person perspective; I tend to gather information at the start of a project and apply it while designing. I always saw this as a bad approach, and thought I needed to try and incorporate users much more throughout the process. To an extent I still do, but I do now realize that I can use my empathic skills to keep a similar strategy as I have now. As long as I do enough research, and have interviews with users at the start to gather the information I need to put myself into the shoes of the user, I can use myself as a point of reference while designing. This eliminates the need to have constant meetings with users, saving a lot of time.

In the third week we looked at behavior of people and how this changes their experience. We discussed several theories that tried to explain how a person performs an action. I was already familiar with self-determination theory[6], as this theory is frequently used in (serious) game development. It was this (and other, like the integrated behavior model) type of model that inspired my vision on UX as a "black box", as many of these models describe the complex process of human behavior by showing what factors influence it.

Another great insight I got this week was in regard to the paper about the attention-interaction continuum[3]. I initially dismissed this paper as I thought it had little to do with my work. My first though being, when you are playing a game you are always going to be focused on it. What I later realized was that this is far from the truth, as playing a game is not a single task. When player games the user is performing many tasks simultaneously. Many of these actions are focused, but some lean more towards the peripheral side. Some game mechanics even use implicit interactions.

This week we also got the advice to map out our thoughts and findings, which greatly helped me visualize a bigger picture of UX and see the relations between aspects of different papers.

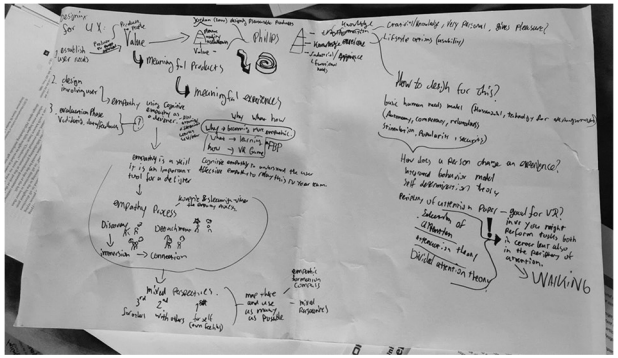

Figure 3: Mapping out my thoughts on the theory

4. DESIGNING FOR UX

We have established that when a product hold value for a user, there is a potential the design of that product to evoke meaningful experiences. But how should we determine this value, and how can we then design for these experiences?

To determine value we can for example look at the Why, What, and How model[8]. In this model, what and how are about the product. What can it do and how does it accomplish this? The why tells us something about the value. Why is the system meaningful?

Another interesting perspective is the hierarchy of consumer needs[9]. This proposed hierarchy consists of usefulness, usability and pleasure, ranking from most to least important. Here the usefulness holds a similar purpose as the why. You can ask, why is the system useful (meaningful)?

In the paper "rethink value in a changing landscape"[4] we can see how these core value has changed over time. In a way, I think these changes correspond with the hierarchy of needs in some way. In the industrial economy was about functional needs, usefulness. Moving on in the experience and knowledge economies we follow with usability and pleasure. Taking existing products and experimenting with them to create new experiences for different lifestyles (experience economy) and layer for the individual (knowledge economy). As functional needs are met we open the doors for more hedonic needs: providing a better experience. To provide this better experience we can look at different factors that alter an experience.

The UX white paper mentions 3 categories of factors, namely context, user and system [paper]. These are factors that either have to be tweaked, or considered when designing. You can for example choose a context for a Virtual Reality demo, such as a large empty room with no sunlight blocking the IR sensors. You cannot choose the context in which a user will be using their phone, taking this into account while designing the phone might lead to choices such as making the phone rain proof or have an adaptive brightness.

Something that is difficult to change however, is the user. Human behavior is incredibly complex, and it is near impossible to achieve a consistent UX across any human being. What we can do is use our understanding of human behavior to make the experience as close as possible to what we want it to be.

The basic human needs model identifies feelings your design can evoke that can benefit the experience you are creating. These feelings are Autonomy (feeling of freedom), Competency (feeling of control and skill), Relatedness (feeling of presence), Stimulation (feeling of curiosity, exploration and play), Popularity (feeling of status or recognition) and Security (feeling of safety, familiarity and relaxation). Using surveys, like the Jordan pleasurability questionnaire[9], we can evaluate how users felt interacting with the product, and how strongly they felt these feelings. This can help identify whether your product represents these aspects like you want them to.

We see aspects of these feelings return in behavioral models such as the self-determination theory[6], which mentions mainly on competency, autonomy and relatedness as factors influencing a persons motivations, as well as the integrated behavior model[11], which explains factors that influence a person's decision making process when attempting to express certain behavior. Here personal agency is another form of the feeling of autonomy and competency.

Clearly autonomy and competency are incredibly important. This makes sense, especially through the lens of product design. A use is not often passively experiencing something when interacting with a system. As certain tasks become habitual or technology takes over human tasks, more interactions are becoming passive, outside of the attention field of the user, or in the periphery of attention[3].

Thinking about these separate levels of attention can help you design your experiences as well. For example, in videogames it is important for players to have the screen be their center of attention, their interactions with the game happen through the controller. For most experienced players the direct interactions with the controller are more in the periphery of attention.

When explaining the game's controls games will often include pop ups of what buttons to press. Usually this is done by simply displaying an icon, representing the button, such as in Bloodborne (figure 4, right). Inexperienced players who are not familiar with the controller layout will now have to shift their attention to the controller they are holding, to find the button they have to press. The legend of Zelda: Breath of the wild (figure 4, left) solves this issue by displaying not only the button, but it's location of the controller as well.

Figure 4: Examples of prompts in Breath of the Wild and Bloodborne

These two games also choose to display these prompts in a much different way. Breath of the Wild's prompt is much more noticeable. This has to do with selection theory[5]. This is the idea that while we perceive the world using our senses, this perception goes through a selective filter, allowing us to focus on what's important. If we want a user to notice something, we have to make sure it is picked up by the selective filter. Attenuation theory[15] and divided attention theory[2] give us a better understanding on how this filter works and how we can use it, for example the use of the salience of loud noises in alarms and timers.

So far we have established how to determine the value of an experience and how to design to improve this experience. But how do we know that these improvements align with what our user needs? For this we can use empathy.

Empathy exists of three qualities; affective empathy (the ability to share experiences), cognitive empathy (the ability to understand these experiences) and the ability to distinguish between self and other.[13] Empathy is a skill that can be trained [17] and is a valuable asset in the tool kit of a designer.

Cognitive empathy can be used to understand to understand the user perspective, while affective empathy gives you the ability to relay this information to your team. The four phases of empathy[10] (figure 5) shows how you gain knowledge out of someone else's experience using cognitive empathy.

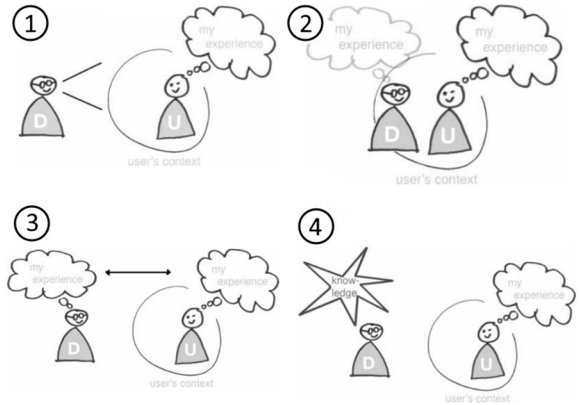

Figure 5: The four phases of empathy

These experiences can be used to guide your design decisions. This is an example of second-person perspective design.[14] Design inspired by others' experiences in the design context. Designers can also use a first or third person perspective. The first person perspective can be used when the designer is part of the design context and has personal relevant experiences towards it, while the third person is much more distant. Here the designer is informed by the work of others, designing for others. [14]

Using a mix of these perspectives can be good for your design, as this will give you the most varied insights into the matter. It removes bias and keeps the design focused. Tools like the empathic formation compass help designers to keep track of their actions taken in each of the perspectives, so they can identify what areas they still need to take action in.

5. INTEGRATION IN WORK DONE

In my final bachelor project, I created a virtual reality game that thought the kids around the age of 12 empathy and emotion recognition abilities.

I designed and prototyped most of my product before actively considering much of the UX. I would make decisions mostly based on intuition and research. I did make considerations on things I now know were important parts of the experience, such as context and aesthetics of the game, but these decisions weren't really based on anything other than gut feeling. I considered various stakeholders, such as the children, teachers or schools, but didn't reach out to any of these until I wanted to validate my design. Out of curiosity I made an empathic formation compass to visualize what my approach looked like. As you will see, most of my activities came from a third person perspective.

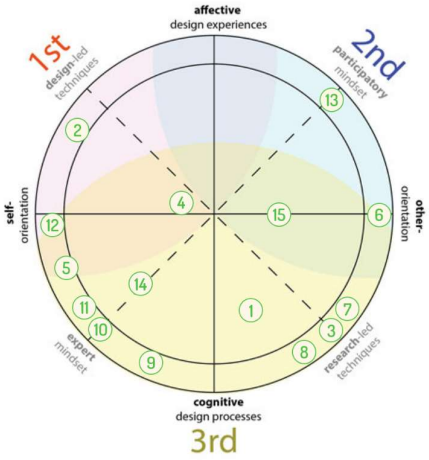

Figure 6: Empathic Formation compass of my FPB

At the start of the project I was mainly focused on the design and the feasibility of the game I was making. It was not until much later in the project that I started implementing aspects meant to improve the UX. Even then I was using UX mainly as a means to improve my already finished product. Making minor adjustments to increase the effectiveness of certain UX factors. The intent here was not wrong, it just came at too late of a stage in the project.

Now I would approach this project very differently. Instead of just researching empathy and emotion recognition skills in kids I would attempt use the second person perspective and conduct some small experiments that allow me to see what exactly these kids struggle with, so I could identify pain points and tackle these with my design.

Instead of just "making a game to teach empathy" I would take a deeper look at the what, how and why of the project. I was creating a tool for learning emotion recognition skills, which was taught through taking care of a virtual pet, but why? I never really answered this question during the project. Now I would say it was something along the lines of "to train empathic skills to a generation where they are on the decline, in a non-confronting manner". Perhaps if I had constructed a vision like that at the beginning of my project I would have made different, better, choices along the way.

6. PERSONAL UX PROPOSITION

Over the years, providing a good user experience has become more than just fulfilling functional needs of users. As products got more complex we had to start thinking about usability, and the experience of use. Topics so complex we cannot tackle them on our own without being biased. This is why we must involve users in our design processes and try to understand what they want, how they want it and why.

Personally I am quite cognitively empathic, able to understand where users are coming from and take this into account when designing. In order to do so I do have to give myself time to get to know the users and the experiences that drive them.

Once I have this information I can realize the users needs and optimize the experience for those. I am willing to make seemingly small changes to benefit the UX, because these can make a huge difference in the quality of the product as a whole. When I design products or games, I want them to have an impression on the user, so that the experience of interacting with them will stick with the users.

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