Individual UX Portfolio (DDM150)

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March 8th, 2021
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INTRODUCTION

This portfolio demonstrates the new knowledge I have learned during the first 3 weeks of the course "User Experience Theory and Practice". I present my own positioning towards UX and how I consider User Experience (UX) using the definitions of others. I then share the material I have learnt from in a weekly log book, and motivate how it has informed my understanding of UX. I retrospectively apply what I have learned to a previous project, and conclude by sharing how I picture my future with UX design. Through creating this UX portfolio, I have connected my personal values with the integral UX theories and approaches that I believe are needed to succeed in future RDD projects.

POSITIONING TOWARDS UX

I have often felt alienated by the language of user experience. Too often, user experience is reduced down to where to put the button. I struggle to think of a moment of interacting with a product that really brought me much joy in and of itself. However, I am overflowing with stories which, upon reflection, have products as actors for joy, despair and all the messy human emotions in between. I am interested in those stories and the much broader sense of user experience; how did the interaction facilitate the creation of meaning for the human in the mix? How does the interaction fit into the wider context of their life; both in the direct environment of the interaction and within the socio-cultural systems they exist in? How does the interaction contribute to upholding hetero-patriarchal, colonial and capitalistic mentality?

Interactions are complex, situated and embodied, and as a designer I approach them as such. For me, the most important question to ask when designing for user experience is *Why* fundamentally, does the person want or need this interaction in their life?

This is where values come into play. However, who's values are we upholding? In my designs, I work from the start with feminist values, including pluralism, participation, advocacy, ecology and queerness. This portfolio has been a tool for me to formalize my own approach towards user experience, and has forced me to name and find the academic language for things that I knew intuitively. Throughout creating the portfolio, I have dug into feminist literature and tried to navigate how it can complement and inform my approach to user experience. I want to apply this intersectional knowledge into practice so that I can research, design and develop a more equitable future.

DEFINING UX

The following are definitions which capture my position on user experience. The first is Alben's (1996) definition, where user experience is defined as:

"All the aspects of how people use an interactive product: the way it feels in their hands, how well they understand how it works, how they feel about it while they're using it, how well it serves their purposes, and how well it fits into the entire context in which they are using it."

This definition resonates with me as it centres the unique, holistic, and embodied, human elements of experience.

Alben's definition goes beyond being able to effectively complete a task, and introduces the emotional and contextual aspects of interacting with an artefact.

This is deepened in Hassenzahl & Tractinsky (2006) definition, which defines UX as:

"A consequence of a user's internal state (predispositions, expectations, needs, motivation, mood, etc.), the characteristics of the designed system (e.g. complexity, purpose, usability, functionality, etc.) and the context (or the environment) within which the interaction occurs (e.g. organisational/social setting, meaningfulness of the activity, voluntariness of use, etc.)"

By acknowledging that users do not come to an interaction as a clean slate, Hassenzahl & Tractinsky's definition considers the complex reality of human nature. To fill in the "*etc.*", I would include that a user's intersectional identity influences their experience, as well as the context of the socio-cultural systems around them.

Sward & MacArthur (2007) complement these definitions with a definition of their own:

"The value derived from interaction(s) [or anticipated interaction(s)) with a product or service and the supporting cast in the context of use (e.g., time, location, and user disposition)."

This definition is an important addition to the above as it captures the temporal aspect of user experience. User experience can begin long before the moment a person

has direct contact with an artefact, and can continue almost indefinitely over time as they reflect, remember and are impacted by the interaction. This reflection may even change its experience (Law et al., 2009).

Cumulatively, these three definitions capture the emotional, situated and temporal aspects of user experience.

WEEKLY LOGBOOK REFLECTION

To achieve my goals for this course, I have supplemented the recommended papers with feminist (HCI) literature that I am using for my final master project. This has allowed me to draw parallels between the theories, think about how they build on each other and begin to formulate my own critical view on current user experience practices through a feminist lens.

Week 1

In the first week, I revisited the fundamentals of user experience design to start from the foundations again. I began by reading Roto et al.'s (2011) paper where UX is introduced as both a phenomenon and a practice. I then read and watched Marc Hassenzahl's (2011) encyclopedia entry, where he introduces a simple model to consider when designing technology-mediated experiences: The how, the what and the why.

This reading segued into value-based design, where I read about Den Ouden's (2013) value framework and Friedman et al.'s (2013) paper on value sensitive design. I supplemented this by reading more about taking feminist and ethical values as a starting point for design, including Bardzell's (2010) *Feminist HCI: Taking stock and outlining an agenda for design,* Almeida et al.'s (2020) *Woman-Centered Design through Humanity, Activism, and Inclusion* and Chivulula et al.'s (2020) *Dimensions of UX Practice that Shape Ethical Awareness.*

This push for value based design came up again in Brand & Rocchi's (2011) paper, especially in the emerging paradigm of the transformation economy. I then read practical recommendations and methodologies to move us closer towards this reality in both Gardien et al.'s (2014) paper, and Chivukala et al.'s (2021) *Surveying the Landscape of Ethics-Focused Design Methods.*

Week 2

Week 2 focused on designing with empathy and design (thinking) methods. I began by reading about our capacity and tendencies towards empathy in Zaki's (2014) paper. I then read about how to develop empathy and to empathize with users in the thesis of Smeenk (2019) who introduces the emphatic hand-over method, as well as the Emphatic Formation Compass (Smeenk et al., 2019). I supplemented this with reading Ogbonnaya-Ogburu et al.'s (2020) *Critical Race Theory for HCI*, which introduces storytelling and counter-narratives as a means to create empathy and up-end assumptions, as well as Costanza-Chock's (2018) *Design Justice: Towards an Intersectional Feminist Framework for Design Theory and Practice.*

Week 3

Week three focused on behaviour, attention and periphery, social awareness, and decision making. To learn about the psychological theories to consider when designing, I read Chapter 4 of Montaño & Kasprzyk's (2008) book about Theory of Reasoned Action, Theory of Planned Behavior, and the Integrated Behavioral Model. I then read Gagne and Deci's (2005) paper about Self-determination theory (SDT), which inspired me to watch Deci's Ted Talk about applying SDT for Health (Deci, 2012).

To reflect on my m1.1 project which focused heavily on navigating awareness and immersion in groups, I read Endsley's (1995) paper about awareness and Bakker & Niemantsverdriet (2016) paper on the interaction-attention continuum, as well as Juola's (2016) paper *Theories of Focal and Peripheral Attention*. I also read about social translucence in the paper of Erickson & Kellogg (2000), and then about interaction with shared systems in the DASS Framework from Niemantsverdriet, Essen et al. (2019). On top of this, I read about maximizing vs satisficing in the paper of Schwartz et al. (2002) who discusses how humans make choices.

UNDERSTANDING UX

During week one, I revisited the fundamentals of user experience design. While this is not the first time I have been introduced to the theories and definitions of UX, my vision on design has shifted recently, solidifying in a passion for designing for women's health from a feminist perspective. This meant that I approached the reading with fresh eyes, and fresh dissatisfaction with the way design has been serving women. Below, I describe the key aspects which I find important when designing for more equitable, value-based and ethical user experiences in the future.

No two user experiences are the same, since they are only felt by the person who has the experience, and are highly dependent on the context. User experience is holistic, embodied, subjective and situated (Hassenzahl, 2010). This can seem overwhelming to design for, however Hassenzahl offers the simple model of taking the *What*, *How* and *Why* into account (Hassenzahl, 2011). The *why* is what adds the meaning to the interaction; we must ask what are the needs and values of the human using the product?
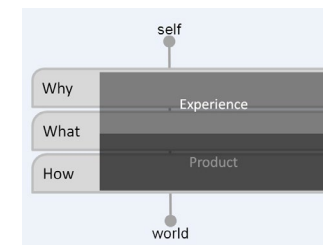

Figure 1:

Three levels to consider when designing technology-mediated experiences.

(Hassenzahl, 2010)

Uncovering and considering this "why" is the part of the design process which I consider to be most influential in creating a great outcome. In value sensitive design, Friedman et al. present that to create ethically responsible innovations, we must actively collect the human values held by stakeholders, for example through stakeholder

value and impact analysis (Friedman et al., 2013). This means that as designers, we must negotiate and prioritize values in complex, multi-stakeholder environments. Jacobs & Huldtgren (2018) highlight this challenge and remind designers to "question whether what is valued by stakeholders also *ought* to be valued". We must also question whether the values and goals we consider to be the users, are theirs at all. Hassenzahl gives the following example in an interview: "Optimizing for efficiency and effectiveness is not a goal in itself for most of us... This was brought to the table by companies and presented as if this would be our (humans) values." (Hassenzahl, 2011).

This "assigning" of values is also represented in feminist thought. As designers, we must be mindful of examining whether the values we take as truth actually contribute to achieving the core needs and desires of a person, or whether they have been assigned as socially desirable values which ultimately further hetero-patriarchal, colonial and ableist structures. As we shift towards the transformation economy, this understanding and fostering ethical value exchange becomes prioritized (Gardien et al., 2014). But how do we achieve this in a practical sense?

Starting by building empathy with the users is a very good place to start. Zaki says that empathy is a motivated phenomenon; we as observers are either driven to experience the empathy or to avoid it (Zaki, 2014). As designers, we are motivated to lean in to empathy as we attempt to put ourselves in the user's shoes, experiencing affective empathy (sharing emotional experiences) and cognitive empathy (understanding those experiences). However, as Wright & McCarthy (2008) share, we can also be intentional about getting better at it as empathy is a skill that can be trained and improved.

I had been previously disheartened by the lack of acknowledgment for the value of personal experience in developing and designing during my education. The empathic formation compass as outlined by Smeenk et al. (2019) however, legitimizes designer's lived experience, building on Zhang & Wakkary (2014) who highlighted

the need to explicitly recognize this legitimacy. We can also take a participatory approach, which, as Bardzell (2010) writes, is "compatible with empathic user research that avoids the scientific distance that cuts the bonds of humanity between researcher and subject, pre-empting a major resource for design (empathy, love, care)". The participatory approach is one that I am passionate about applying in designing for women's health care. I have always felt that the notion of "users do not know what they need" to be too technocratic for me, echoing the disregard of a woman's intuitive, embodied "knowing" throughout history.
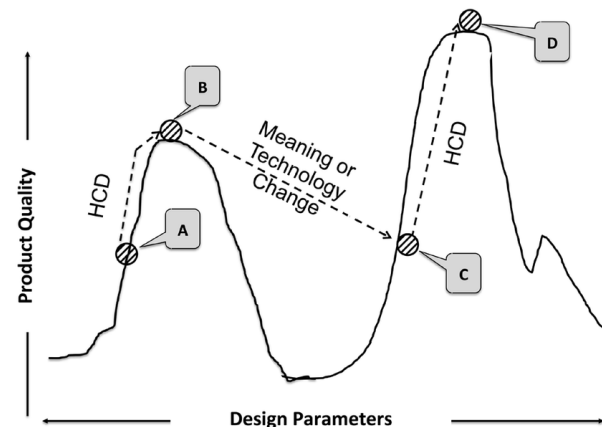

Figure 2: *The hill climbing paradigm (Norman & Vergenti 2014)*

In many ways, I see innovation in the field of women's health has been trapped in what Norman & Verganti (2014) would call "local maxima", where the top of the hill is "innovations developed primarily by, and for men, adapted as well as possible for not men". Incremental innovation builds and improves upon that which already exists, however, we have built our western systems of health innovations within the structures of patriarchy for so long, that I think we must now go for radical, meaning-driven innovation. Norman and Verganti suggest that design research *can* lead to radical innovation if there is a

deep reinterpretation of the meaning of a product, which can emerge through research rooted in more general socio-cultural changes. Applying the knowledge which I have built in this course, I hope to begin to do so.

INTEGRATION OF NEW INSIGHTS

In my m1.1 design project, we designed the Truesight Battle Grid which aimed to enhance the game experience of tabletop role-playing (Dungeons and Dragons) through tangible data visualization (Plijnaer et al., 2020). Through visualizing game-play possibilities using lights, we tried to provide players with information about the fantasy world without being distracting.
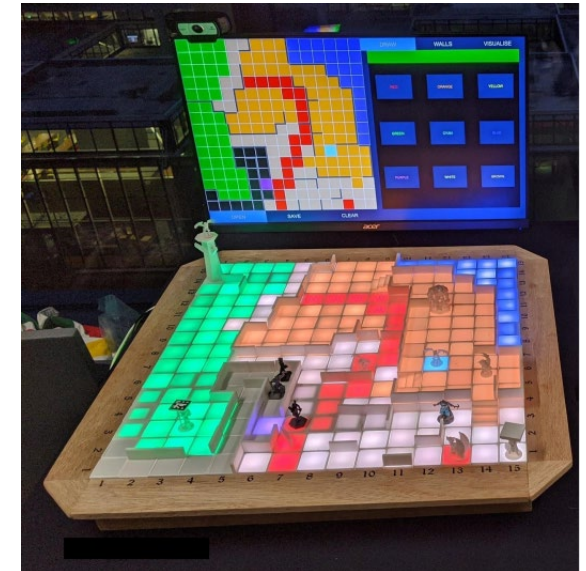

Figure 3: *Truesight Battle Grid (Plijnear et al., 2020)*

constantly designing to balance between the levels of attention. Since players want to be immersed into the imaginary world that they co-create during play, we did not want players to give *direct* attention to the interaction at all times. We tried to design to allow some actions to happen in peripheral attention; for example, the colour of

the grass slowly changing to red to indicate that a fire was spreading and they needed to move on. The Dungeon Masters (the player who leads the game) who tested our prototype said that their dashboard took them out of the game world, I know now that this is because our interaction demanded too many mental resources and *directed* attention.

During our project, we should have looked closer at SFT. Autonomy and relatedness are extremely relevant to why many people love role-playing games. The collective world-building and challenge solving fosters relatedness, while the open-ended play style of the game lends itself to a lot of autonomy. For example, since almost anything is possible in a fictional world, we decided to create the board using rearrangeable, modular blocks. The flexibility to build and change the battle grid allowed players to maintain their autonomy.

Figure 3: *Truesight Battle grid in use (Plijnaer et al. 2020)*

The third component of SDT, *competence*, was especially relevant for new players. Since we found that new players were overwhelmed by the many rules, and felt like they couldn't do anything right (lack of competence), we designed a function to quickly and easily show new players what their options were on their turn. This also

helped to create what Endsley describes as *Level 3 Situational awareness - Projection of future status*, by giving them the knowledge they needed to decide on the most favourable course of action to meet their objectives (Endsley, 1995).
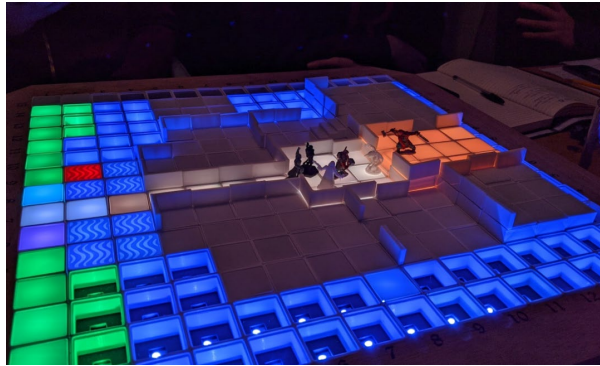

Figure 4: *Displaying game play possibilities (Plijnaer et al. 2020)*

Showing the game play possibilities on the communal board also lead to social translucence, since we created shared awareness of constraints (Erickson & Kellogg, 2000). Not only did the individual players know, but they knew that each other knew, creating mutual awareness (Yuill & Rogers, 2012). After reading about the implications of social translucence, it would be interesting to research what the impact of this social translucence was on game play.

To have designed this shared system better from the beginning, using the Designing for Awareness in Shared Systems (DASS) framework (Niemantsverdriet et al., 2019) would have been extremely helpful. At the beginning of the design process, the question of "*What information is needed for awareness?*" would have guided us in mapping out and prioritizing the information we wanted to show since this is something we struggled with. By considering the question "*should providing information require effort or initiative from people or can the information be retrieved as a consequence*?" sooner,

I believe we could have predicted the complaints of the DM that sending the information required too much effort and given a better overall user experience. By integrating tracking of the player's miniature figures on the board, we were able to present the information at the right moment, without requiring extra initiative from the players, which led to a better user experience for them.

PERSONAL UX PROPOSITION FOR FUTURE WORK
I see the role of the designer in society becoming increasingly important as we face multifaceted and complex issues such as the climate crisis, and increasingly burdened healthcare systems. As a designer, I am comfortable with the ambiguous nature of these problems, and am able to approach them from both a macro and a micro perspective.

In healthcare, I see huge potential for value centred technologies to offer previously unaffordable, personalized solutions to women who are being failed by a one-size-fits all systems. To facilitate this, I must be comfortable across expertise areas, equipped

with the language, insights, tools and confidence to orchestrate and connect the moving parts of larger systems. We must also have the sensitivity and critical thinking skills to challenge and transform the user experience of systems which are not working, identifying who is being left out and why.

To do this in the future, I will start with empathy and asking the fundamental question of "why?". Implementing participatory and living lab based approaches into the work of the RDD department of healthcare innovators such as Philips or e/MTIC. I believe that a feminist perspective should be integrated from the bottom up in all work that we do, including in industry and should not be reserved as an "academic add on". Ultimately, I believe that design can create a better user experience throughout the entire healthcare trajectory.

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