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MA Digital Experience Design 2018

04.
Experience Design

A critical review

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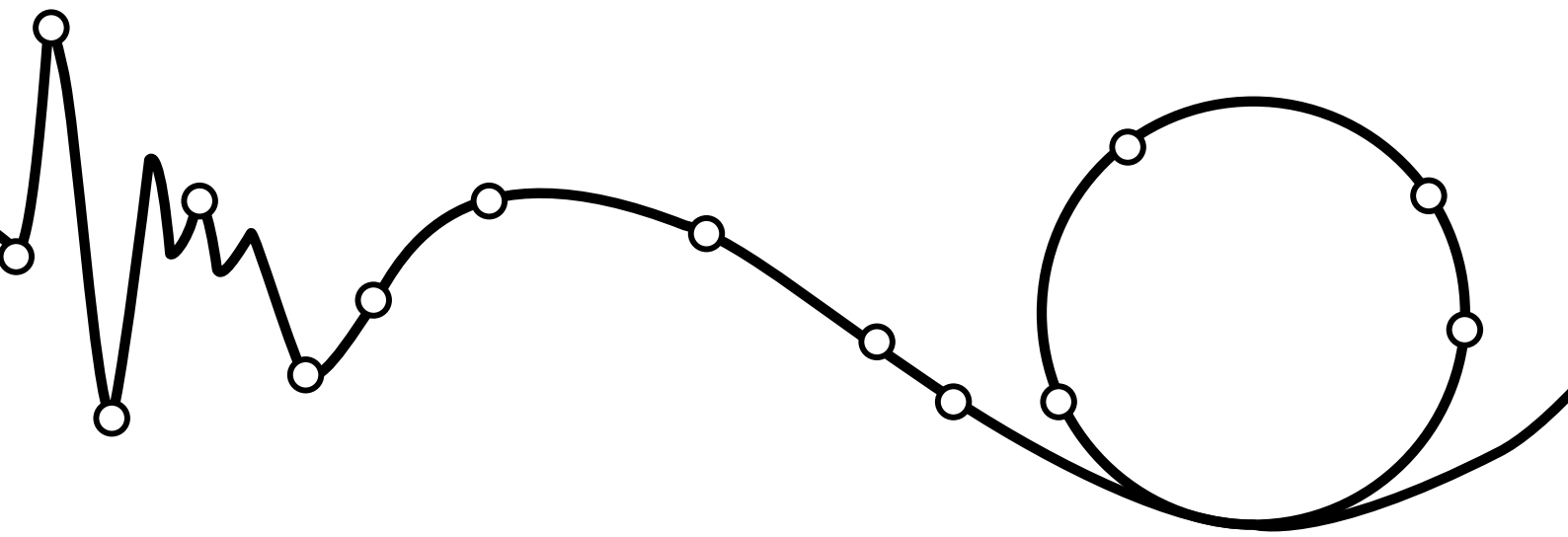


Introduction

This paper will critically evaluate the skills and methodologies relevant to the design thinking process that have been learned during the six months spent on the master's Digital Experience Design (DXD) course at Hyper Island. This paper will reflect on the experience design process from beginning to end with a human-centred approach and review the tools that have been used along the way. The ethical issues that arose during the design process will also be discussed.

Fig 1. Team Knights of the Realm - Experience Design module

What is Experience Design?

To best understand what an Experience Designer (XD) does, it helps first to try and understand what Experience Design means. Put simply it is an experience designer's job to make technology easy to use. Experience designers do this by understanding how humans interact with technology, so we can empathise with their pains and figure out how we can make the experience more useful, usable and compelling. (Toscano, 2016) Experience designers can come from all walks of life – not just from a design background – including, but not limited to strategy, graphic design, code and even some analogue backgrounds like anthropology. User needs can be understood using interviews, personas or user journeys, prototypes or even observations. Observing how users behave when interacting with a service or product can often uncover things they might not have realised they wanted to convey because humans usually aren't the best at saying what they really mean. (Toscano, 2016)

By observing human behaviour, designers can make any product or service usage into an experience. How do they hold the product in their hands? Do they use it the way it was designed to be used, or do they 'hack' it and find new ways of interacting with it? Is the interaction intuitive and clear? How do they feel when they use it? Does their facial expression say the same as the words they say? All these questions are explored so that the eventual interface better matches what they already consider a well-designed, easy-to-use product. (Bacha, 2018, p. 199)

Insights can be gathered through interviewing the intended end user, creating personas around them and prototyping the product to see how the product works. A growing technique is the inclusion of the end user during the prototyping phase. User inclusion ensures that user needs are addressed rapidly, and iterations can be made at a much quicker rate. Bacha (2018) agrees with a study by Andrews et al. (2012) that "one shortcoming sometimes associated with participatory design approaches is that "users

are [often] involved in the design process too late to influence the final product". It could be argued that by leaving the user's contribution towards the end of the project, the potential impact they could have towards the solution is dampened, leaving little time to react to any feedback the user may have.

It also decreases the likelihood of designer assumptions and biases being built into the solution. Designing without user insights can have a hugely detrimental effect on the output on the proposed final design. David C. Brown (2006) said of assumptions:

> ***"... some information comes from the experiences of the designers and implementers. That experience suggests configurations to prefer in different situations, and familiar components to use. Experiences lead to preferences being formed. With those preferences come assumptions. Designers tend to assume normal situations. ... They tend to make incorrect abstractions across all the situations where particular techniques worked well before ... This can be done by assuming that some key detail is not relevant."***

I am of a similar opinion to Brown, and I believe assumptions are the arch-nemesis to human-centred design and can be summoned into the design process with phrases such as "Surely the user will..." and "they *must* know this...". During the Understanding People project for the BBC, one team member suggested using an assumption map. This was hugely successful because it allowed the team to align with their thoughts, but it also gave us some initial targets to aim for. By putting the assumptions down on paper, it made them actionable, and the team could work towards confirming whether they were assumptions or not.

Human-Centred Design

Human-centred design is perhaps best described by IDEO (2015) as offering

> *"problem solvers of any stripe a chance to design with communities, to deeply understand the people they are looking to serve, to dream up scores of ideas, and to create innovative new solutions rooted in people's actual needs."*

Human-centred design also focuses heavily on building empathy for the user, and this has completely changed my approach to design problems. In the Design Thinking module at the beginning of the course, I was part of a team that had the opportunity to work with the Manchester Homelessness Partnership. The team was tasked with coming up with solutions on how to get people with a lived experience of homelessness back into work. By talking with people with a lived experience, the team were able to build up empathy, enabling them to dig deep into ideas based on the things the user needed.

Another vital aspect of human-centred design is getting out from behind the desk and into the world to interview the people you are designing for. It goes without saying that products and services should meet people's needs and aspirations. (van der Bijl-Bouwer and Dorst, 2017, p. 1) In-context interviews are especially useful for finding out hidden needs of your users as evidenced in the Understanding People project. The team interviewed a Hyper Island crew member at her home and found useful insights through observing the surroundings that simply would have been missed in a video call or interview at a neutral location.

IDEO has detailed the human-centred design process in a visual diagram of divergent and convergent thinking, split into three design phases; inspiration, ideation and implementation.

- Inspiration: The inspiration phase focuses on getting as broad a scope as possible to help define the possibilities that can inspire a solution to the design challenge. This phase encourages designers to get out into the world and talk to users, look at existing or similar solutions and conduct analogous research to find inspiration from obscure areas.

- Ideation: Taking the inspiration, this phase is all about taking the insights and getting them down into ideas that can be as simple or as unorthodox as the designer can imagine. Creativity should be allowed to flow, and team members are encouraged to build on each other's ideas, rather than criticise them. Once a multitude of ideas have been explored, teams can then begin to prototype them. Prototypes can be tested, iterated and developed with users to get their input and feedback on what does and does not work with your idea. Fail often and learn from failures.

- Implementation: The final phase is focused on getting the solution ready for delivery. Final tweaks, polishes and any finishing touches are completed ready for the end user to adopt and embrace. (IDEO, 2015)

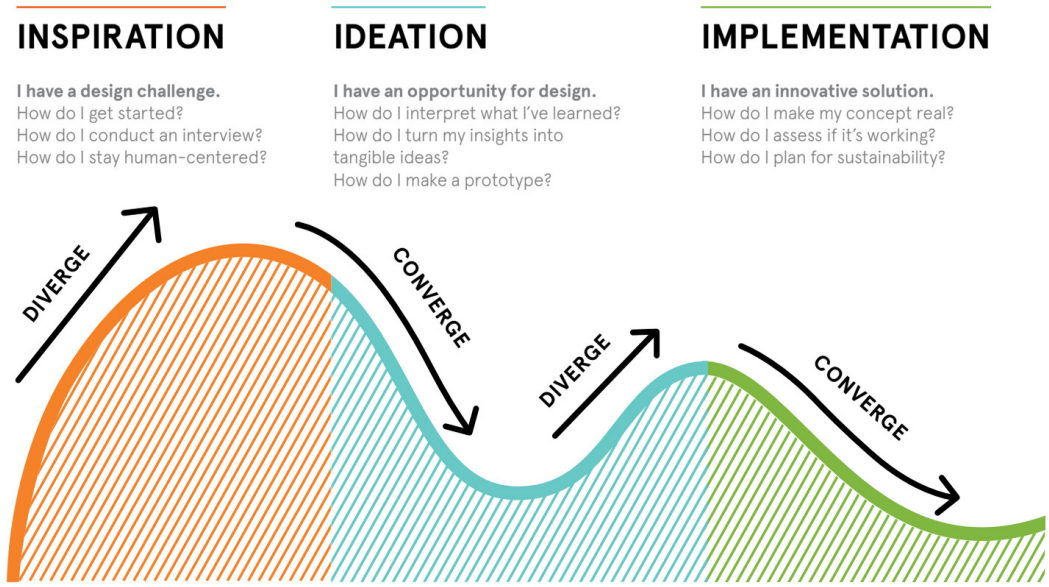


Fig 2. Human-centred design model

An area of confusion surrounding the term ‘experience design’ is in the interchangeability of job tasks relating to job titles such as ‘service design (SD)’, ‘user experience (UX) design’, ‘interaction design (IxD)’, ‘product design (PD)’ and increasingly common in modern times is ‘information architect (IA)’. A popular search term is ‘what is the difference between user experience design and experience design?’. Distinct UX (2009) differentiates the two as follows:

- User Experience (UX) design: a term used to describe the overarching experience a person has as a result of their interactions with a particular product or service, it is delivery, and related artefacts, according to their design.

- Experience design: a term used to describe design that is driven by consideration of the moments of engagement, or touchpoints, between people and brands, and the ideas, emotions, and memories that these moments create.

While it can be argued that the outcomes are mildly different, both roles follow very similar design processes, revolving around user research, observations and interviews, gathering insights and synthesising the ‘gems’ (IDEO, 2015) into personas and customer journey maps. Ultimately, the above roles all focus on user needs which aim to reduce pain points and frustrations for those users.

Fig 3. Singapore Tech visualisation of Experience Design

The Design Process:
From Insights to Delivery

'There has been work to establish design processes to enable more creativity; these process models are often termed 'innovation processes''. (Howard, Culley and Dekoninck, 2008, p. 160.) For teams to be able to make an impact, it is important that they follow a design process. 'As the products and systems that we design, and use become increasingly complex, the design processes need to integrate more diverse knowledge and skills; and involve larger multidisciplinary teams and more disperse collaboration.' (Eckert and Luo, 2018). However, 'designing is far too complex a phenomenon to be describable by a simple diagram'. (Lawson, 2006, p. 289, as cited in Green, Southee and Boult, 2014, p. 517) Despite the Design Council's Double Diamond model becoming one of the more popular design thinking process models, they said that 'there may never be an ideal design process' (2007). Having said that, the more common human-centred design processes all follow very similar principles.

The Stanford d.school model, IDEO model, Double Diamond, Google design sprints and many others all focus on understanding the problem, defining it, ideating on it and experimenting with those ideas through prototyping before testing the idea with users. Regardless of the imagery that accompanies each of these models, it is clear to see that they all follow the non-linear pattern of diverge-converge-diverge-converge with a heavy focus on building empathy for the user.

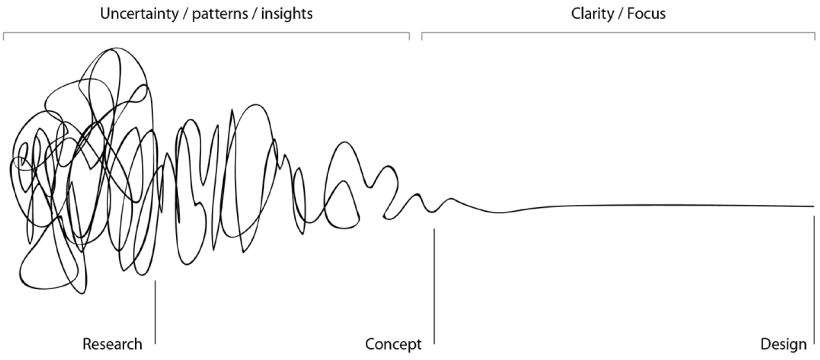


Fig 4. Damien Newman's 'Design Squiggle'. (2009)

As someone whose background was from a more traditional Waterfall design process – though, I did not know this until I had arrived at Hyper Island – using a design process was new to me. I had often wondered how designers came up with ideas and what process they had to go through to get them from their tables to mine. Design thinking and human-centred design work with a lot of ambiguity due to the nature of tailoring each solution to a specific target audience. This ambiguity was a massive change from how I had worked in the past, but it was a change that I have fully embraced and is something to now look forward to. There are numerous ways of approaching the design process. For the purposes of this paper, the focus will be on the Double Diamond model as this was the model that was mainly used through the DXD program.

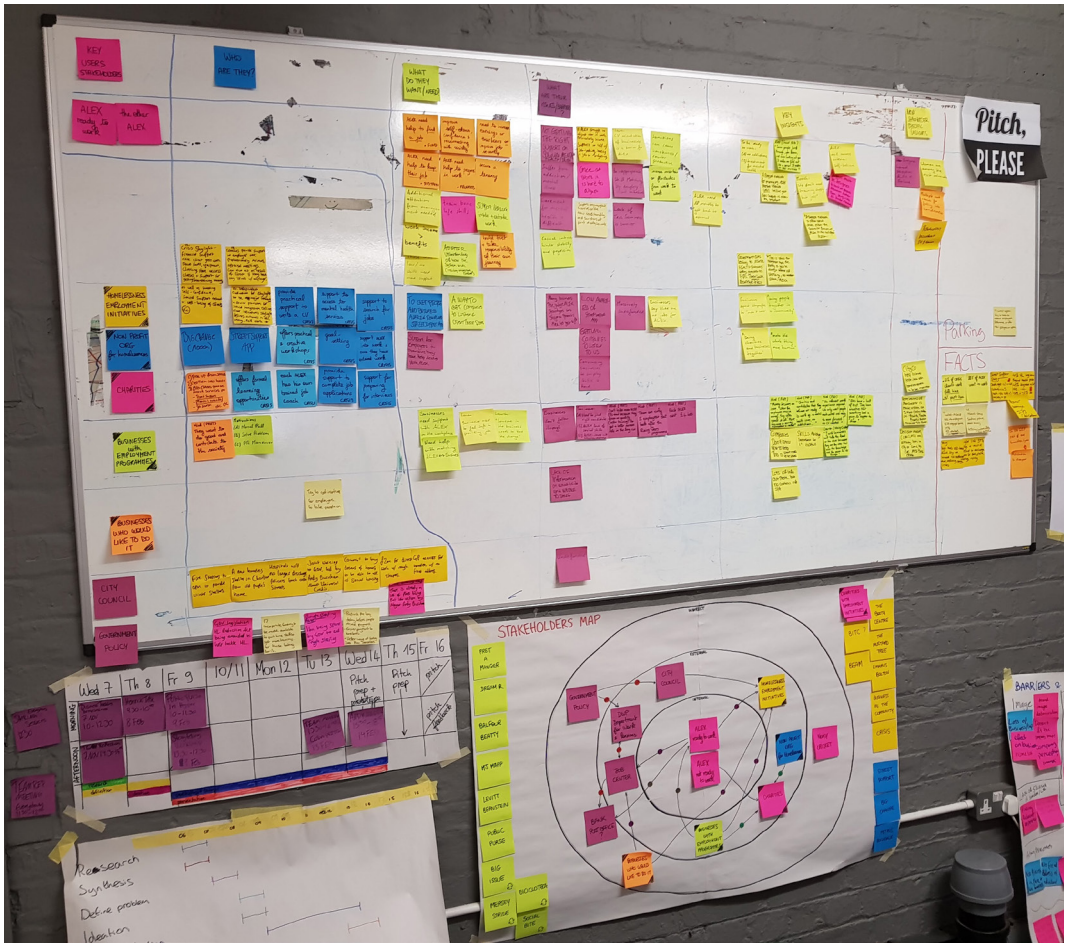
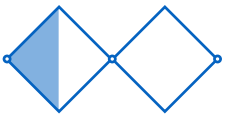


Fig 5. Design process during the Design Thinking module

Double Diamond

A lot of the excitement of a new design project comes from the host of possibilities that can come from divergent and convergent thinking. The Design Council came up with the Double Diamond as a way of documenting how they believe the design process should look.

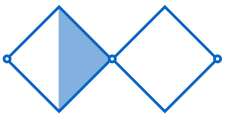
The Double Diamond is simple in its design, complex in its understanding and it could be argued, effective in its execution. Its simplicity comes from the four stages the model represents, split across two diamond shapes:



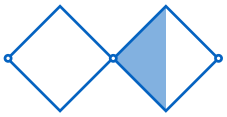
Discover: The starting point of any project, this is the first point in which teams start off with divergent thinking. Designers try to look at the world in a fresh way, notice new things and gather insights. (Design Council, n.d.) The discovery phase is where designers often carry out user interviews to find out user needs and desires, analogous research to see how the brief can be tackled from a different angle and desk research to find out what already exists and what is up-and-coming regarding trends or technology. Teams can also do a round of quick ideation that aims to get the creativity going early on and to see what can come out of the research that has already been gathered.

One exercise we did as a team in the Experience Design module was a creative session called 'Crazy 8s'. The group has eight minutes, one minute per idea, to come up with as many unique ideas as possible. The objective here is to push beyond the first idea, which is frequently not the most innovative and generate a wide variety of solutions to the challenge. (Design Sprint Kit, n.d.) Teams are encouraged to withhold their judgement on ideas as it is simply a method of visualising the research conducted. As a way of keeping the ideation constructive, the team then spent time building on each other's ideas. It is also important to remember that the ideas do not have to be great - the exercise is about quieting the inner critic and giving space to

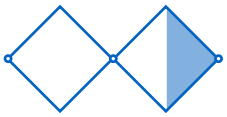
our more creative impulses. (Design Sprint Kit, n.d.) Some of the best ideas that the team took through to the final pitch were generated from this initial ideation session.



Define: The second stage of the first diamond is considered to be the sense-making stage. Designers take everything they found in the Discover stage and see what makes sense, what is feasible and what is actionable in the context of the brief. This part of the first diamond is about converging as a team through the synthesis of research to pull out insights, discover themes and patterns that have emerged and consider the opportunity areas. The goal here is to develop a clear creative brief that frames the fundamental design challenge (Design Council n.d.) and eventually come up with a 'How might we? (HMW)' question to guide the team's focus.



Develop: As Dan Nessler (2016) says in his post about his revamped Double Diamond, 'this is the fun part, and as it is part of a diverging phase, you should restrain from limiting yourself and approach ideation with an open mind.' This part of the Double Diamond process is where the team can gather all of the previous ideas and begin to fine-tune them, build on them and test them with users through prototypes. By gathering feedback from users and not from the team, a new light might be shed on the ideas that might not have been thought of before. This stage of the design process is about going through iteration loops to get the ideas to a point where they can be finessed into something more tangible that the client can begin to see how it would work in the wild.



Define: The final quarter of the Double Diamond is about finalising the solution, producing it and getting it launched. (Design Council, n.d.) As is often the case at Hyper Island, the launching of the product referred to the pitch presentation to the client, showcasing everything the team had done throughout the project. These presentations were usually presented by way of a deck, but for the BBC, our team produced a children's storybook containing all our insights and ideas and pitched it in pyjamas for a more immersive experience.

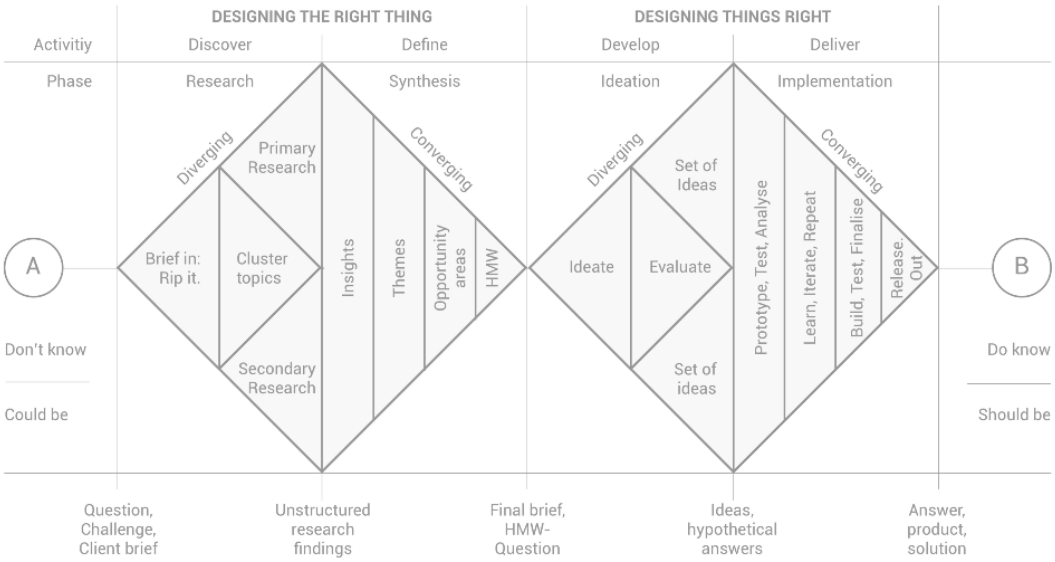


Fig 6. Dan Nessler's Revamped Double Diamond

Design Thinking

Design thinking 'has been defined as a design discipline that uses a designer's sensibility and methods to match people's needs with what is technologically feasible and develop successful products'. (Gobble, 2014) David and Tom Kelley of IDEO came up with a diagram of how this might look, with three lenses of focus; desirability, feasibility and viability, at the centre of which is innovation. By focusing first on discovering user needs and desires through primary research, design teams can build empathy with them, before looking at what is technically feasible and considering whether solutions are viable from a usability and business sense.

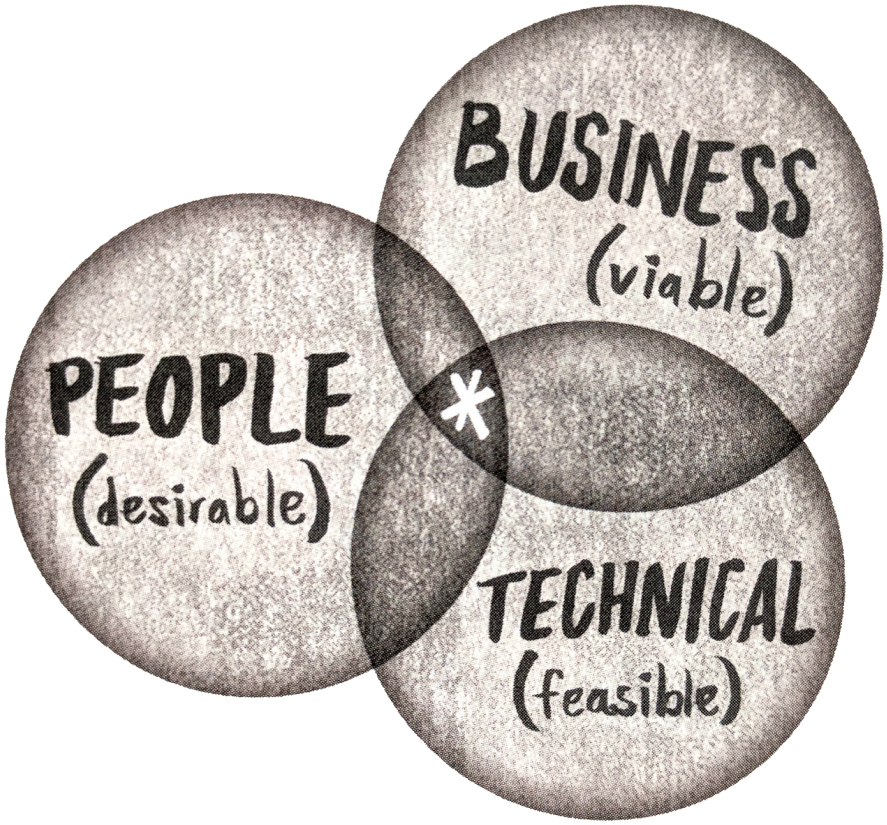


Fig 7. Tom & David Kelley's innovation model (2013)

Design thinking, like human-centred design, is a non-linear approach to design. Throughout the program, I have experienced this on several occasions. There have been times in projects where the next step has not always been apparent. It is during these moments – dubbed by the Hyper Island programme leader as 'the fog' – when teams either band together or fall into conflict. Those teams who have experience amongst them can navigate through the fog and know which part of the design thinking process to focus on next. Of course, this is contextual and dependent on each project, but two contrasting scenarios stand out. In the Design Thinking module, the team spent too long researching and as a result of one team member's insistence of continuing to do further research, the team dynamics crumbled which had a significant impact on getting the right content ready to pitch. During the Business Transformation case, the team were able to discuss a plan ahead of each day and because of this, were able to afford the time to work on other assignments.

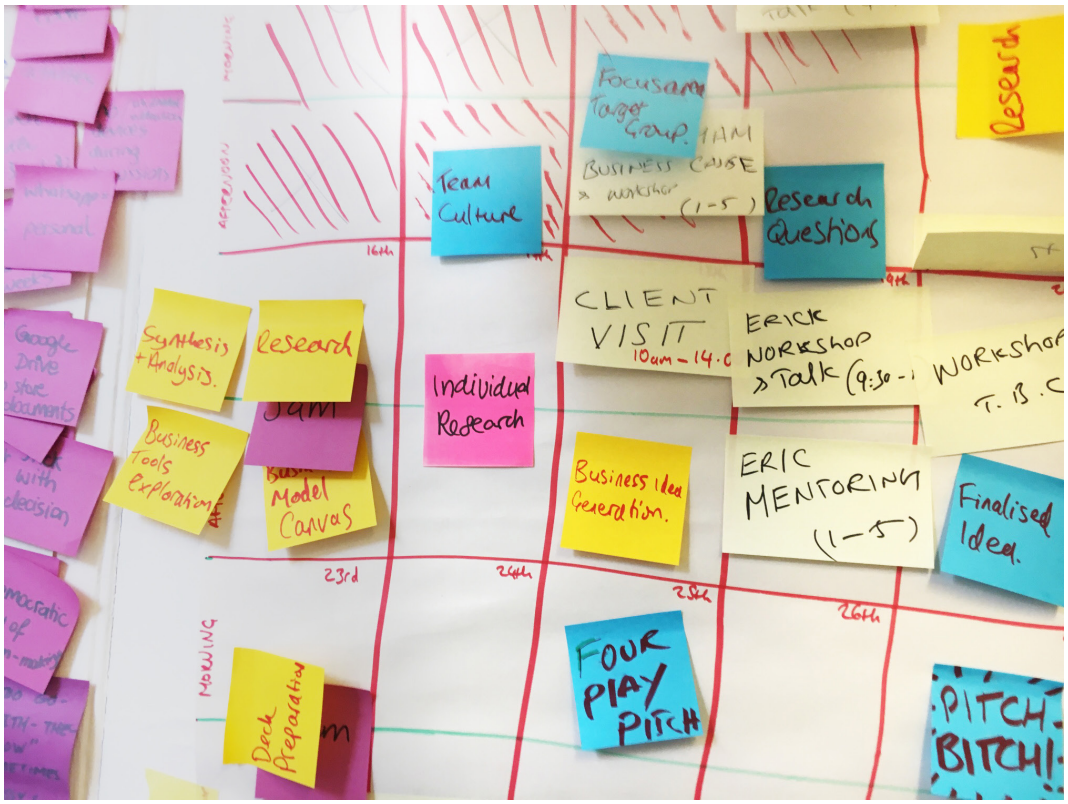


Fig 8. Planning ahead enabled the team time to work on individual projects

Tools and Techniques

Interview

'In-depth interviewing is a popular and versatile data collection method used in qualitative inquiry. Qualitative research interviews are not as simple as they may first seem and involve complex interactions that employ a range of communication and interpretation skills.' (Banner, 2010) It is from these interviews that many of the insights are discovered. Not only do we discover insights from the things our interviewees tell us, but also from the things they do not tell us. How do they react to questions? What does their body language tell us? What are the mindsets they exhibit? These questions can provide answers which help to build personas and ultimately, products.

Extremes and Mainstreams

Although talking to extreme users was not something I did a lot of during my time at Hyper Island, I did record a video of the benefits of talking to extreme users during the Understanding People module. What makes an extreme so valuable is their characteristics and motives. (Duverger, 2012, p. 539) In that video, I explained how extreme users are usually the first group of people who look to solve a problem that the original product does not solve naturally. By focusing on the characteristics and motives of extreme users, designers can take inspiration from their workarounds to find a way to solve that problem on a larger scale.

Expert Interview

Talking to experts has obvious benefits and can yield some compelling insights. However, my team in Understanding People discovered that experts do not always provide the desired insights the team were hoping for. The team

interviewed an expert on nudge theory, and while the conversation gave us a lot of information about nudge theory, there was not anything the team could take forward into the final ideas. I have since learned that asking the right questions is as important as asking the right people.

Download and Synthesise

Perhaps the most critical part of managing projects and team alignment is downloading and synthesising research and interview notes. From the insights and research gathered, each team member takes it in turns to speak about those notes and say why they found it important. By synthesising the notes, teams can make sure they are all on the same page and from there, can come up with a 'How might we?' question to focus the team's thinking going forward in the project.

Fig 9. Downloading and synthesising our research during the Experience Design project

Experience & User Journey Mapping

Increasingly, customers choose products and services based on the quality of the experiences they have with them. (Adaptive Path, n.d.) Experience maps – sometimes called a customer or user journey map – are useful tools for having a visual representation of a user's journey through a product or service. It helps to show what an ideal journey would look like (Andrews and Eade, 2013. p167) and can help to highlight any pain points, and opportunity areas to work on. By visualising these journeys, design teams can build empathy for the user by walking 'in their shoes'.

In the Experience Design module, the team mapped out the customer journey through the minimum viable product (MVP) version of the client's Fika app in its current state. Fika is an emotional wellness service where users are encouraged to 'talk [it] out' to reduce the risk of developing mental illness. The journey map was particularly useful for the team as it highlighted the gaps in the user journey that allowed the team to develop opportunity areas. From these gaps, the team worked on three ideas that built on the MVP to enhance the user's journey through the service. It is my opinion that if the team had not plotted out this user journey, the team might have fallen into the trap of developing ideas based on assumptions, rather than the needs of the user.

In the same project, a member of the team went on an analogous experience to a confession box. The team chose the confession box as this was the closest experience we could think of that we could experience to plot out any similarities. The journey was visualised on a map, right from the moment we looked for a church to attend up until the point where he returned. In this map, he also made a note of his thoughts and emotions throughout the journey, which helped us to build further empathy and target any pain points to look further into.

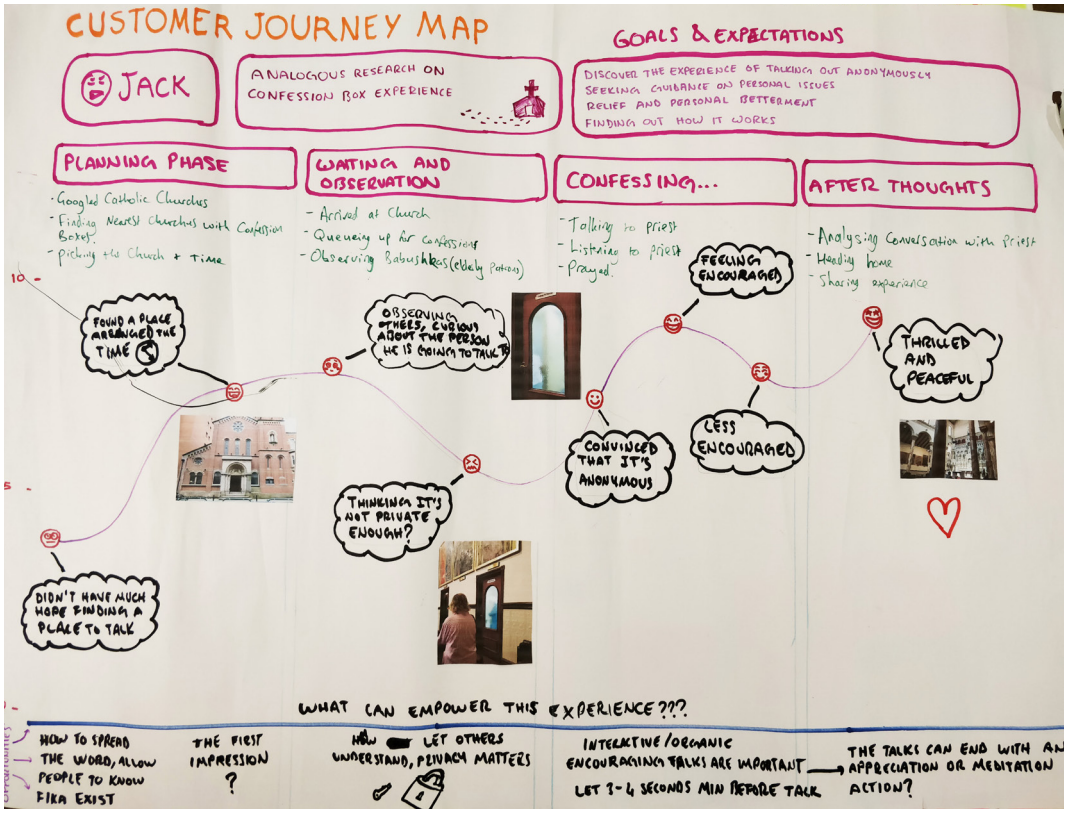


Fig 10. Customer journey map of the analogous experience to the confession box

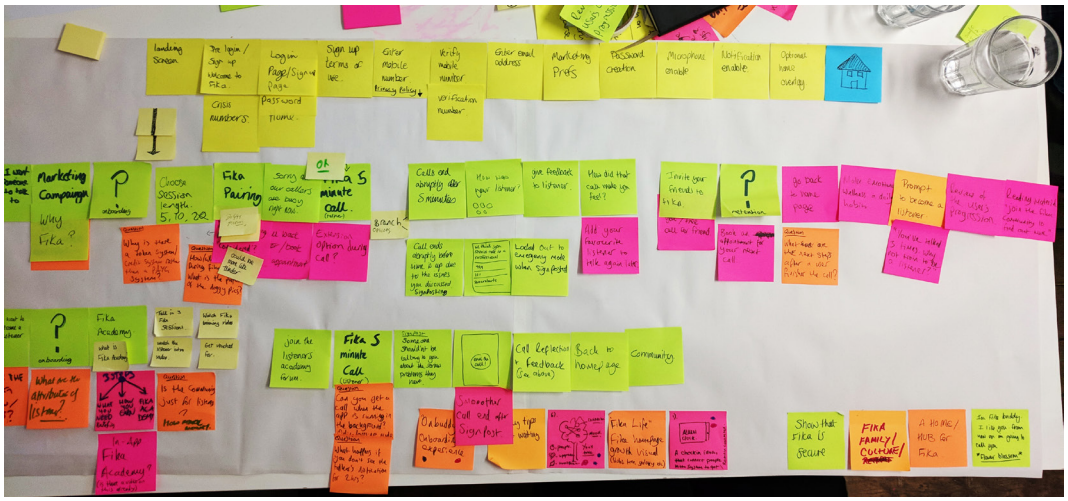


Fig 11. User flow of the Fika service

Prototyping

Prototypes are 'a first or preliminary version of a device or vehicle from which other forms are developed.' (Meachin, n.d.) Prototypes can be as 'low-' or 'high-fidelity' as is needed by the requirements of the brief. Low-fidelity prototypes can be as simple as a rough sketch on a piece of paper, while high-fidelity prototypes can be as close to a finished product as is necessary. However, the main point of prototyping is to see how users react to the functionality of an idea. By making low-fidelity prototypes, designers can ensure that aesthetic assets, like fonts and colours, do not get in the way of user feedback around how the idea works.

Low-fidelity prototypes are quick to create, cheap and should be at the earliest stage of your ideation process. Mid-fidelity prototypes are the next stage in the process and should focus more on how a user interacts with the idea, while still forgoing any aesthetic values. High-fidelity prototypes can begin to show the user how the idea might look with some visual input. However, this is arguably the slowest level of fidelity as it requires more design and can be expensive for companies if done too soon in the design process.

Out of the four modules I have completed during the Hyper Island program, the Experience Design project was the only time my team created any prototype. I am glad that the team for this project factored in enough time to create some prototypes as it showed me the true value of doing them; previous teams were not able to prototype, in my opinion, due to inexperience, time constraints and team conflicts.

After a single 'round' of low-fidelity user testing the idea, the feedback we received enabled us to iterate the idea so that it made more sense and looked better visually. Gaining feedback from my peers was insightful because I trusted them to be as honest as possible, as they were going through the same process as me. Sometimes users provide the answers they think you want to hear, which is not an accurate reflection of what they think. As a result of the honesty of my peers, the client appreciated the

thought process that had gone into the idea. Their honesty also gave me the confidence to speak freely to provide them with feedback in return.

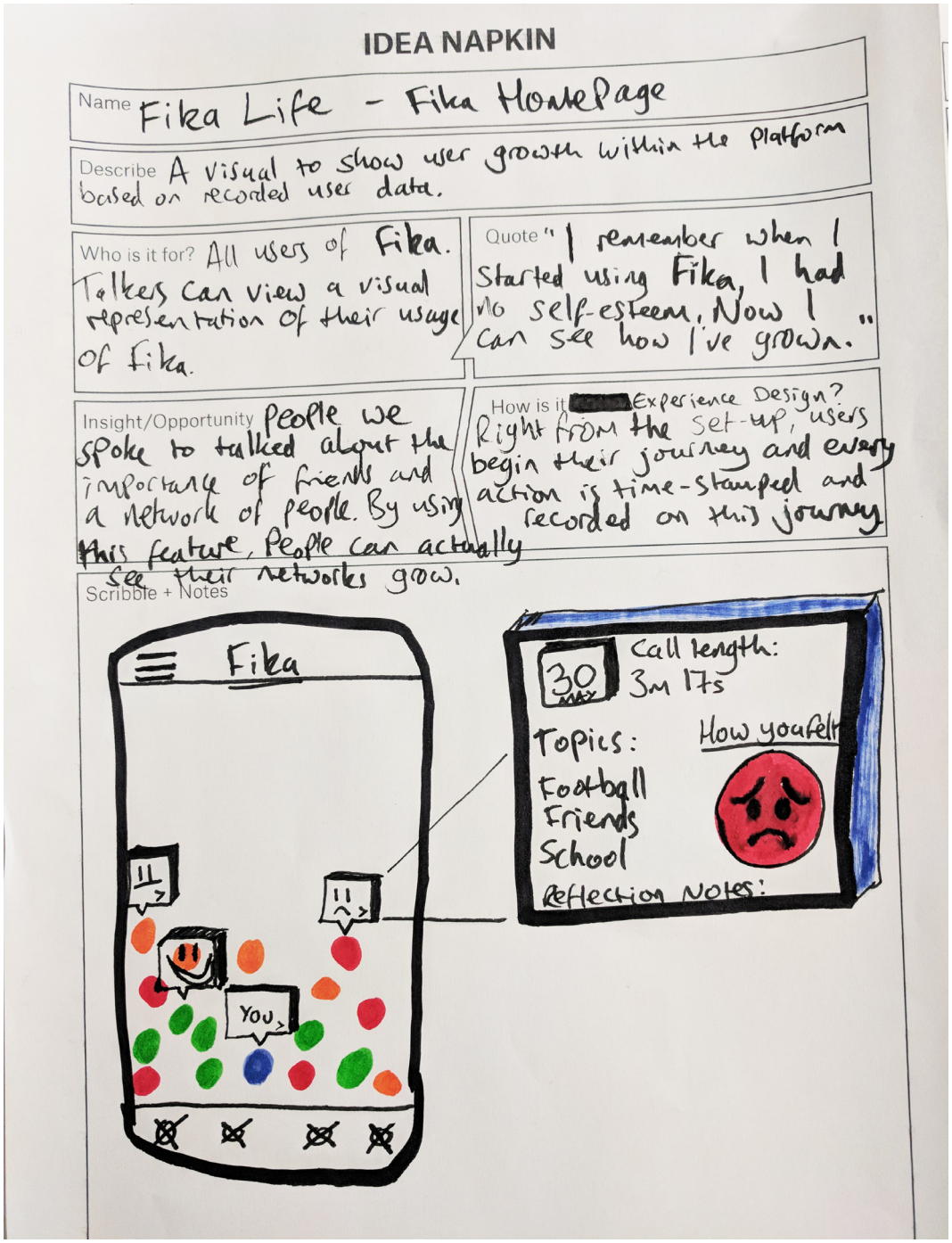


Fig 12. Low fidelity ideation at the beginning of the prototyping stage

Ethics in design

I have always considered myself to be an ethical person, though I had not been able to label it as such until I arrived at Hyper Island. One of the first things we learned and was encouraged to keep in mind throughout our work was ethics. Ethics are defined as the moral values, beliefs, and rules that one upholds in their life on the job and personally to ensure right from wrong. (McDonough, 2013) By embarking on a design thinking journey, I have placed more thought into the implications of what I design. The more I think about it, the more concerned I become with how humanity runs the risk of designing itself out of existence. As human-centred designers, we have a responsibility to the people we are designing for to ensure that our designs are influenced by their needs and desires but are also morally and ethically guided.

It is a shame then that there are some aspects of design that take advantage of their users. Dark UX, manipulative design and some argue nudge theory as well are just some examples of unethical design. By understanding user needs, companies can design experiences that only benefit the company rather than the user. An example of this is 'when your free trial with a service comes to an end, and your credit card silently starts getting charged without any warning. In some cases, this is made even worse by making it difficult to cancel the membership.' (Raghupathy, 2017).

However, ethical design should not only consider the people who use it. The long-term effects on the environment and society must also be considered. A prime example of this could be the recent Facebook user data scandal. Because of a breach of user data, Facebook users have lost faith and trust in Facebook, which resulted in a backlash of users cancelling their accounts.

Conclusion

Throughout the DXD program, I have learned what I consider to be the core components of what it means to be a modern-day designer. This paper has critically reflected on the field of design from the point of view of a Graphic-cum-Experience Designer. I have evaluated what it means to be a human-centred designer and have explored the various tools that I have used throughout a series of briefs for different clients. Additionally, I have reflected on my learnings of the design process, from insights to delivery and how each new tool or methodology I have used has helped me grow as a designer. Finally, I have critically reviewed how ethics have played a part in the design process and how it has added an extra layer to the thought process when it comes to designing for the future.

The sections mentioned in this paper are only a snapshot of what it takes to become a great designer for human good. For one to truly master these components takes dedication, hard work, commitment and empathy for those one is designing for to ensure that the ideas are fuelled by their needs rather than one's own. Only then can one call themselves a human-centred designer.

Fig 13. Digital Experience Design crew after pitching to the BBC

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