

I consider myself to be a designer that always designs from a holistic perspective. This shows in my reflective attitude when designing and the approaching of the design process from different perspectives. My strength is keeping an overview of the complete design process, its progress and which steps to take. Inferred from my vision, I am interested in the methodology and team dynamics of service design. I find the collaboration within multi-disciplinary teams to be very valuable, since the combination of various expertises can strengthen the design process and final design. Within this, I find mutual understanding and communication an interesting challenge to investigate and optimize. Over the past years here at university I have seen project groups struggle with this, and more recently, struggle with the understanding and implementation of emergent technologies. The variety in levels of understanding and expertise, unawareness of how to design with these technologies and how as a result groups steered away from it or considered these technologies to be a 'magical' solution inspired me to research the collaboration between (service) designers and emergent technologies, specifically focusing on AI.

My goal was therefore to combine my strength and interest in service design and mutual understanding with my research project. By looking at the impact of understanding of AI across the entire design process instead of individual phases, I aimed to define the underlying challenge to this phenomenon and propose a solution or next step in supporting designers when designing with emergent technologies.

A significant part of my research revolved around the investigation of how current design processes are set up and where the mismatch between current practices and designing for emergent technologies came from. By analysing current design methods and tools, defining pain points in the process of designing for AI and mapping these all to the various phases of the design process, I was able to get insight into the designers way of working and thinking when it comes to designing for AI. This strongly plays into the creativity and aesthetics expertise, since the designers methods, tools, reflective and critical attitude were analysed and mapped to the entire design process to provide insight into the challenge at hand. Next to that, setting up the research study challenged me in translating the shortcomings found in current research into a proper setup of which the results would contribute to the field of research and be of significance to designers. By combining methods such as brainstorming, designing for extreme characters and a team discussion, I was able to guide the participants in reflecting on their experiences and coming to insights for the research question.

Within my research, I adopted two different perspectives to which the research could be of significant value; a business perspective and a user perspective. From a user perspective, end users might experience the impact of this research through overall improved user experience of AI related products and services. Through my literature research I learned that the implementation of AI in an end-user product or service can impact the user in various ways. The black box effect of AI influences for example; the user's understanding of the intent of the model and the learning process of the model. However, in order to improve upon this user experience, designers should understand these black box effects themselves and know how to design for them. Therefore, this research contributes to the human-centered perspective on AI, which should become a critical reflection point throughout the entire design process.

From a business perspective, answering these research questions contributes to the team dynamics, efficiency and client satisfaction. With the recent growing demand for service design and design consultancy, development teams can benefit from increased efficiency and improved mutual understanding amongst the team members in regards to AI. Within my research I investigated the team dynamics of the participants and how their collaboration influenced their design decision and process. This provided me with insight on which skills and knowledge were needed in which phases of the design process, and thus taught me how to better define the role of a designer within a multidisciplinary team as is often seen within service design and design consultancy.

All the studies I conducted were transcribed non-verbatim and thematically analysed. During the analysis, I observed recurring themes around the confidence and awareness of designers involved in AI development, the role and responsibility of the designer and AI-specific knowledge and skills needed in order to contribute to the design process. The data was then coded to define sub-themes regarding these findings.

In order to conduct this research, I submerged myself in the topic of AI and machine learning to be able to follow along with the participant studies and be able to thematically analyse the data. For this categorisation and analysis, basic understanding of AI was needed, which supported my development in the expertise of technology and realization. Next to that, I was able to propose a facilitating tool as embodiment of the insights and results from my research. While the tool itself needs future work before it can be developed, guidelines for the realization of the tool could already be defined based on the insights derived from the research.

Within this research I was able to develop my interest in mutual understanding further by learning how to gain insight into the elements and practices needed in the design process to gain mutual understanding. Next to that, I developed my skills in the service design methodology by thoroughly investigating how emergent technologies can be taught to designers and therefore be adopted in the design process and possible products or services. My internship company has shown interest in the results of this research and is considering a reversed version of this research as a project where I will be investigating the possibility of bringing service design to companies working with emergent technologies. Within this project, the knowledge obtained on how to implement and design for emergent technologies in the design process will be of great value.