Professional Identity

Who I am as a person

I would describe myself as a technical, creative, and organised person. From early on, I have always been interested in how products function, look, and are produced. The technical side of products like electronics and mechanics made me interested in the design field. I am also interested in people's experiences and interactions while using a product. I also find it essential that the products I develop serve and help people during their work or daily life. The connectedness with people and the solution-orientated design projects I like to work on give me the motivation and energy to continue with what I am doing. For this reason, I try to involve many people during the process to get the most out of the work that I do.

When working on projects, I work best when the environment and the work plan are structured and organized. I find it important that the tasks that I am working on are completely and evenly worked out. I am most satisfied and proud of my work when I look at the end result and know that the process went smoothly and according to plan.

I do not have a strong preference for an individual or group-oriented project because I feel at home in both an individualistic and a group-oriented environment. I can adjust pretty well to my surroundings and work environment. When I work on a group-orientated project, I find it important that everyone is motivated and equally involved, and that the work is evenly distributed. However, when that is not the case, I prefer working individually because then I can make sure that the task and result will be achieved.

Although I find the design process very interesting, I must say that the results are just as important to me. This can lead to my approach becoming more practical, efficient and results-oriented. As mentioned earlier, the structure I create for myself ensures that I achieve the results I strive for without compromising the process.

When I work on projects, I always try to apply my (newly gained) knowledge to improve my process and, therefore, my quality of work. I also always aim to understand the design challenge and the problem context as well as possible because I believe they will help me greatly with the process. For that reason, I always try to analyse the context thoroughly. My intrinsic motivation helps me ensure that everything is done as I envisioned towards the end of every project and delivers a great result.

Who I am as a designer

As a designer, I aim to design and develop **technical products** that are **useful** and **meaningful** which could help people with everyday tasks or work. This is not merely by focusing on the product itself but also by integrating other aspects like **stakeholders** and **user experience** during the whole design process.

What drives me within design is the process of creating something from a simple idea or problem towards a working prototype as a solution. This is achieved by combining design with technology and the involvement of stakeholders, research, testing, and prototyping. I aim to create purposeful, valuable, and high-quality products that create an experience for the end users. I enjoy converting problems into solutions and then communicating those solutions by creating visual content, (such as visuals, 3D models, renders, and videos) or physical content like prototypes. I also think it is important to collaborate with stakeholders to get more out of the process.

My interests during the study have grown towards *electronic products* that are *medical or health-related*. This is due to my interest in technical products and my belief that products should be developed for useful applications that serve and benefit people or our planet. Creating products or doing research for a field which is rapidly involving and innovating, makes me curious about what I can contribute. This is because I get energy and fulfilment from the work I do when I work with people, especially people who are grateful, interested, and open-minded to new ideas and products that can help them.

What inspires me as a designer is work from other designers who develop products which have been around for a long time and that have not changed much due to their brilliant design and function. People who can make high-end functional products without compromising on aesthetics or looks. Products like this will give the users a pleasant feeling when using and interacting with them. This will also result in less waste when repairing is more likely than with cheap products which are made to be used less long or purely for creating revenue.

Because of my creativity and technical background, I think that I am a good all-rounded designer. My strengths therefore I would say are technical aspects, like electronics, programming, computer-aided design (3D CAD), and prototyping. But also my eye for detail, intrinsic motivation, and other skills help me to deliver quality work.

One of my abilities and qualities I could work on is, for example, my ability to be more open-minded. With my engineering background, I tend to be slightly more straightforward with my goals and ideas. In addition, although I like working with other designers, I find it sometimes difficult to give certain tasks away or let someone else finish or change the work I started with.

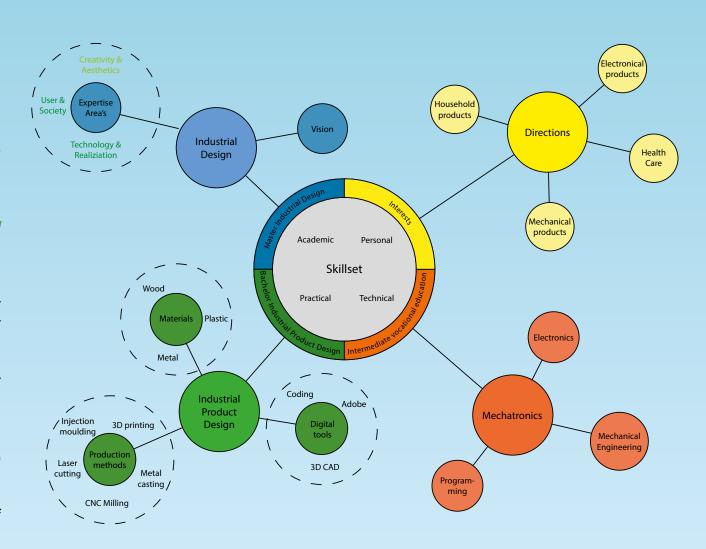
My Past - Present - Future

Past

Because of my early interest in the technical field, I first studied *Engineering* in Breda. After graduating, I concluded that I enjoyed working on technical products and systems but that I missed the creative part during the process and the interaction between the users and the products that I was developing.

Therefore, I started the *bachelor of Industrial Product Design* at the Hogeschool Rotterdam. Throughout this study, I realised that developing user-oriented products was far more interesting and valuable to me. After graduating from the bachelor program, I decided to start with the pre-master program of Industrial Design at the Eindhoven University of Technology to gain more knowledge within the work field and on certain topics like user experience and innovating novel technologies.

When I completed the pre-master, I continued with the *master of Industrial Design*. This allowed me to further specialise in academic subjects that interested me and that were related to product development. The master also greatly helped me to develop myself on a professional level and with scoping my vision.



My Professional Identity Map

Present

I am currently graduating from the Master of Industrial Design at the Eindhoven University of Technology. During my master I chose the Master Track: Research, Design, and Development because it fits my personal and professional identity the best.

By choosing this track and following specific offered courses during the master, I believe I can achieve the goals I have set in my vision and future plans. Through my different previous educations, I have developed many different skills that I can use and that have made me the Industrial Designer I am today.

Future

During this master, I concluded that I want to continue working and designing for medical environments with the development of technical, electronic and innovative equipment. It fits my vision and areas of expertise best and I feel that I get the most satisfaction from working in that environment.

I see myself working in a medium to large company (design agency) where people from multiple disciplines work together. I have previous experience working in a small (5-8 people) medical company as part of a design team of two. However, I feel that I have more to offer and learn in a larger design team.

My Vision

Future View

Over the next five to ten years, *technology will be integrated into our daily lives more than ever*. If we look at AI, for example, it is expected that AI will show a (market) growth of around 30% by 2030 (Statista, 2024). This means that we as designers are more concerned than ever with technology-oriented products. We strive to make our lives as efficient and comfortable as possible. However, when we look at healthcare, for example, the workload for healthcare professionals continues to increase and it becomes more difficult to find new people. In low-income countries, a shortage of 10 million health workers is expected by 2030 (World Health Organization: WHO, 2019). In a field that needs more assistance, with an expected growth of 15.7% worldwide (Statista, 2024), we as designers could make a difference by innovating and developing new products to serve and help every stakeholder involved. We could help people prepare for the coming market growth and make sure that everyone can get the help that they may need in the future.

My Focus

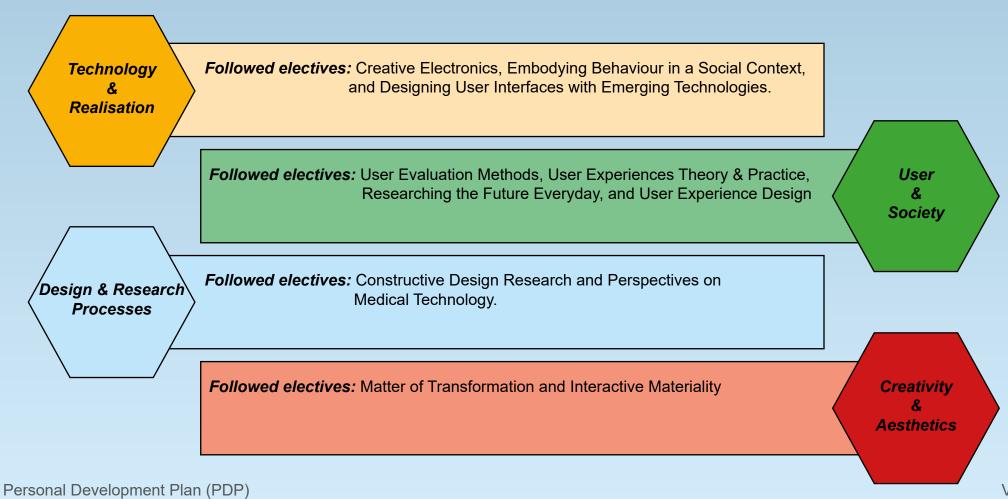
Within my vision, *I strive to integrate innovative technology* with products and systems without compromising or eliminating the user's interaction and experience. I fully believe that using technology is a good thing, but I also want to keep in mind that we should not neglect the human factor and experience when looking for new solutions and creating new products. The *products must remain user-oriented*, even if they work faster, are smarter, or take over certain tasks.

My Goal

My goal is to **design and develop useful and meaningful products** that solve real and specific problems for people and together with people. To achieve this result, I took courses and electives that focused on **users and society**, more specifically on topics such as **interaction**, **experience and medical healthcare**. During my studies, I also took more technical-focused subjects such as **interfaces**, **data**, **and electronics**, because of my interest in **technology and the realisation** of products. This combination of acquired knowledge has helped me to achieve my current goals and will prepare me for my future goals.

My Area's of Expertise

During my master Industrial Design, I decided to focus on *Technology & Realisation* and *User & Society* as my two main areas of expertise. I have chosen Technology & Realisation because of my interest in technical products and my previous education. I choose User & Society because I value useful products that have a positive impact on all stakeholders involved. Currently, I am interested in health-related projects and products, therefore I think that choosing Technology & Realisation and User & Society as areas of expertise is a strong combination and will work well together for my professional development as a designer. In addition, the *Design & Research Processes* competence is shown due to it being the fundamental of the master Industrial Design. I also additionally highlighted *Creativity & Aesthetics* because that was a previous choice which I developed before changing it to User & Society.



Personal Development Plan (PDP) Bram Willems (1765671)

Integration Expertise Area's during Master

During my master, I gained knowledge about several areas of expertise due to my chosen and followed electives, both inside and outside the faculty of Industrial Design. I integrated the gained knowledge about the expertise areas in various projects and course assignments during my master.

Business and Entrepreneurship

This expertise area is mostly about the business side of design. While I didn't specifically follow any courses focused on this expertise area, I did integrate this area in multiple projects, such as my FMP, by including various stakeholders during the process and analysing the product's feasibility, viability, and desirability through value propositions and looking at the product's position and potential.

Creativity and Aesthetics

I argue that this expertise area is mandatory to develop during an education as a designer. During this master, I followed courses about this subject, focussing on transforming thinking patterns and interaction with materials. For me, creativity is about creating the right solution for a given problem using the right approach, as I did during my FMP. Aesthetics for me, is focussing on the perception and interaction between the user and the product. My M1.1 Design Project: Quetta and Course Elective: Paradox are good examples of how to integrate this area within a design challenge.

Math, Data and Computing

During this master, I took courses on topics, such as data structures, algorithms (AI), and data-enabled design to enhance my skills regarding using and analysing collected data. I deployed these skills, especially during my M1.2 Research Project: Vein Finding by collecting and analysing quantitative and qualitative data. But also during my FMP through analysing sensory data.

Technology and Realisation

During this master, I further developed myself on a technical level by following courses about new and innovative technologies. I did this to broaden my existing skills and to become more familiar with other types of technology. This is to get more out of the products that I develop and to improve my prototyping skills. I demonstrated this in almost all my projects during my master (M1.1, M1.2, and FMP), by making high-fidelity interactive prototypes which illustrated the desired features and functions to its users.

User and Society

The user and society are, in general, a large part of my aim regarding professional identity and vision. Therefore, I took a few courses about user experience in theory, practice, and design. This was to develop my overall skills in understanding involved stakeholders better during the design process and aspects like interaction with a product or system. I also took a specific course about researching the future of products, users, and society which helped me shape and adjust my vision. All these courses highly influenced my perspective on designing for users and society. As a result, I involved multiple stakeholders and performed multiple evaluations during the design process of my final master project.

Design & Research Processes

My master graduation project was, in my opinion, an ideal example of a design and research process. This is because the chosen design approach (double diamond) and methods were a good fit with the overall design challenge and my chosen master track (RDD). This allowed me to showcase all the knowledge gained during the master. The FMP included extensive necessary research at the beginning to get a clear picture of the problem and context. The second part showed the iterative process of the design and development of the product. This all resulted in a solution, which showed great potential for all stakeholders involved.

Human-Technology Interaction User-centred Design Creativity Aesthetics User Aesthetics Society Inclusion of Philosophy & Ethics Ethics Evaluating Medical technologies Industrial Me Design Value Proposition Interfaces Creation Innovative Business Prototyping of value technologies Entrepreneurshin Technology Mechanical engineering Realization 3D CAD Data Coding Electrical Math. Data engineering Computing Programming Engineering

My Personal Expertise Map

Learning Goals

Past learning goals

During this master, I followed a lot of ID courses which were related to my chosen expertise areas of *Technology & Realisation* and *User & Society*. During my M2.1, I choose to follow elective courses outside of my own faculty, namely the Department of Industrial Engineering and Innovation Sciences. This made it possible for me to gain even more knowledge on *user experience in design* (Human Technology Interaction) and on *perspectives on medical technology* (Philosophy & Ethics). This contributed to my vision, perspective and learning goals to learn more about the human-side approach to designing with technologies.

Current learing goals

As for my current learning goals, my goal is to show my newly gained knowledge with my Final Master Project. I would like to show the included user experience and interaction as part of my project to show my growth in that area. In addition, I would like to present my solution of a new way of measuring iodine within the medical sector with a functioning prototype which challenged me to include all gained knowledge regarding technology and realisation from the previous study years to make it happen.

Future learing goals

After my master, I would like to see how far I could continue with my final master project, by taking part in the TU/e Contest. After that, I will search for a job in a mid-size or large company which specialises in electronic and/or medical equipment to learn more about that specific area within industrial design.