

# Personal Development Plan September 2014

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## M22 Final Master Project

### Introduction

In this short PDP you can read my vision and Identity as it was previous semester. An updated version will be included in my final showcase and portfolio. My vision and Identity are still valid as they where, but minor adjustments and improvements will be in place. But I believe these improvements and adjustments will not influence my direction for this semester.

As my previous semester resulted in a H I think it is in place to reflect on the given feedback from previous semester. This reflection was already in my Request for the board of the examiners, so most of the parts will be copied out of that.

In the Goals and competency development you can read a bit more on what I think is needed in my competency development, and where my strengths are currently. My goals will not be smart goals, as my goals are more a guide through the process as a strict planning. This sometimes results in a miscalculated timeframe for one of my goals and means I need to adjust my goals, but doing this on the way gives me a feeling of freedom that is important for my creative process. Continuous goal setting and time planning is where most of my coach meetings on focus, and is something that I mostly like to do in collaboration with someone else.

### Vision

*My Vision on designing: Where does this show in my design output and approach, set of ideas believes, future of society, future role of academic designers,*

*As a designer I have always fancied to change the world around me by creating new things. The things we create have sometimes a bigger impact on the world than we intention because we cannot predict how the creative*

Since the industrial revolution the world has changed a lot so does the meaning of design. It is no longer only the practice of creating nice furniture and cars but has evolved towards products with intelligence, interaction and meaning. Although the possibilities for creation has grown drastically most products and fields have remained almost the same since the industrial revolution. Through time I have learned that my passion lies in creating interactive lighting installations and creating interactive information sharing devices. The one main topic I have always found interesting is how can we change the way we learn

things? What tools can I create so that you can experience an on screen interaction in the physical world? How can I create new meaning for schools that still follow the path set in the industrial age?

The reason why I am so interested in education is because most of my life I spend in educational systems, each system was coping with change of this era.

In the old educational model everybody is forced to go through the same mold. But there is already a shift going on where knowledge spreading becomes more open. Through online learning platforms, and new educational programs people start learning things outside the normal scope of the classroom. Teachers have the possibility to step into this shift and take a more coaching role, where they use these new sources to support their lessons. I believe that the way we work at Industrial design in Eindhoven can be applied in many more places. Technology should help us monitor quality and progress rather than standardized testing only. The way we learn things has drastically changed over the last decades, we are shifting from book-based learning towards a digital format. The internet connects us more than ever. How can we provide information towards each other? And how can this new physical approach help to create new learning environments?

#### ONLINE, LEARNING, PLATFORMS, GAMEFICATION, OPENING OF INFORMATION, DISINTERMEDIATION

I am interested to see how the way we learn things will change in this digital age. What will schools be like in 20 years? How can I use technology and open knowledge in future education-systems? How can we shift from a fixed learning curriculum towards a more open and dynamic learning system without losing track of the pupils progress? I believe in the way we learn in this faculty towards future educational systems: the students will create their own goals for their education within an area of interest. The role of the teacher will be to guide the student to reach their goal. Thereby keep standardized testing to a minimum, and look how students with their own creativity can show their work, and assess them qualitatively more than quantitatively. As computers are very good in assessing quantitatively I see an opportunity in creating technologies that monitor progress through exercises rather than the fixed moments of testing. A variety of digital learning tools can support the teacher or coach to monitor its pupil's progress. I believe schools are still afraid of technology as they see it as something that replaces old ways of working.

## Identity

I see myself as an all-round Industrial design student, an opportunity creator who can adapt to every situation. This is not unique for myself but is the uniqueness of this education. Nevertheless I feel it is important to mention as it greatly defines the way I work.

My interest lies in creating new interactive landscapes that give a rich and meaningful experience. Interaction can be and should be experienced much broader than only on screen human computer interaction. Through the development of several exiting prototypes in the past I have become aware of the possibilities new technologies give us. I want to use these technologies to make radical new products rather than linear improvement. I like to work on challenges where the right solution is not something given on beforehand.

By keeping an eye on the latest trends and developments in technologies and societies I can make this possible. I believe I can implement and combine technologies in ways and places where we did not think

of them yet. Therefore what I create has a surprising element, and an explorative element in it. My products get your attention and through interacting with it you will learn its behavior and function.

Through explorations, and observations in society, I create a vision on where my ideas are based. I aim for radical innovation and creation of new meanings in products rather than build upon something existing. Communicating of new innovation is always a challenge as what you are designing is not always in the expectations of the client. People don't know what they want, they only know what bothers them. Through visualizations, prototypes, movies and presentation I communicate my vision from where I start my designs.

Carry forward this vision is only possible with constant collaboration with the stakeholders and end-users involved. Through early realization of the experience in a working prototype I communicate my ideas. After the presentation of my ideas the concept can grow through co-creation, reflection and concept mapping. After initiating the first concepts my role as designer is to integrate and combine visions of the different parties involved. Seeing opportunities within the landscape of different parties is one of my strengths.

My passion lies in teaching and new ways of representing information. I constantly search for new ways to develop my skills further through teamwork, coaching and joining events.

I am well capable to learn new things self-directed through my experience of the open education model of industrial design. In the future I want to work in the creative industry to develop new and inspiring projects.

## Reflection on Feedback

The main point where it went wrong previous semester was within my ambitions. During my whole career as a student I lived towards the Final master project. To high expectations set for myself made it hard to scale down my ambitions in creating my final product within this study. I have learned now that shifting your concept towards a more feasible one is necessary to finish this study, as the product will never be finished enough.

This semester I will focus on finishing my product as it was previous semester. This will mean that most of my time already now I am focused on the creation of my tangible programming blocks. This requires a vast amount of time in soldering and programming. But as most of technical problems are overcome previous semester my focus can be also on other fields.

Previous semester the focus was too much on the creation of my prototype and not enough on what I wanted to test with it, and how I should test it. This semester I want to finish my literature research and answer relevant questions within the HCI field of Industrial design.

Risk management is always a problem with me, my rigid focus for the completion of the product I want makes it hard to go to a plan B or C. As I believe a plan B or C will not be good enough. This semester I have lowered my goals for the prototype, and made pragmatic choices to scale down the interaction possible with the prototype. In this way I will have something to test with children and get results even though it is not finished in my mind.

## Goals and Competency development

### Introduction:

My skills within analyzing complexity, integrating technology and Ideas and concepts are the best developed competencies. Although for the completion of this semester a lot of work still needs to be done in the development of my prototype, I will keep the development of new functions for the blocks to a minimum. So that I can focus more on the important aspects of the potential of my product, the evaluation, the research, and the publication of this.

### User focus and perspective

I will need to work more on user focus and perspective as I worked little with users through the development of my final product. Through my study I have done assignments in user focus and perspective, and done usability testing but not so much of my work was on the observation of testing a new product. This semester I will do a pilot test with several children to test the usability of my product. Through this pilot test I will redefine my test setup of my final test.

For the setup of my final test, I have already examined literature and chosen a direction within tangible user interfaces where little information is available. The focus will be on the interaction within a group, how students learn from each other, and how tangible tools facilitate exploration. This test will exist out of 2 tests, one in a group and one individual. This is so that I can compare the learned elements and see the effects of the group behavior.

The methods will consist out of: Video analysis, and probably an open constructed interview and a small questionnaire.

### Design and research processes

Even though after this study I probably will not continue with doing research this final master project is mainly based on insights from existing research projects within tangible user interfaces and tangible programming tools. Therefore I will do a test with children from a primary school to validate my blocks and get new insights. This will be documented in a paper styled report. The intention will be to publish this paper into an existing journal. The time will have to learn if this is feasible, if this goal is too ambitious the paper will still be written but maybe not published immediately within this semester. Next to this paper the design process, design decisions will be visualized and documented into a report. This will be more descriptive about the process and my personal design intentions.

### Social Cultural Awareness

Within my report and documentation I will focus on how this product can be implemented in the learning process of the user. I will document input from teachers and end users into a short conclusion and recommendation of the product.

### Integrating technology

The development of the prototype will hold soldering, programming, testing building etc. The process and working of the technology will be described in the report.

## Ideas and concepts

My design decisions and recommendations for a future prototype will be documented in the report.

## Design and Business Processes

Where time is available I will talk with experts and potential partners to develop my product further. In the report there will be a cost analysis and business plan, and revenue model to develop this product further.

## Analyzing complexity

If possible I will analyze the quantitative data from my research, otherwise I will focus on explaining some of the technical details of my product more visually. If possible I will collect direct data from the blocks itself during the test. This data will then be visualized and analyzed to be able to obtain my conclusions and recommendations for further research.

## Form and senses:

The focus for form and senses this semester will be on the development of the robot, design of the logo's, and graphical design of the report and branding of the product.

## Self Directed and continuous learning

This semester I will focus my energy for the coach meetings on the parts that I need to learn the most. My coach Jacques Terken has given me good guidance for my underdeveloped competencies, and together with him I will construct a good setup for my research and test plan.

## Teamwork and communication

This project mainly done by myself communication with others is limited. The main thing I want to work on is my professional communication towards my coach and others. This means that I need to keep a motivated attitude towards myself and others. Once I lose my motivation I should look for alternative solutions for my project to keep my professional conduct

## Short planning

- Q1: finish the prototype before the midterm presentation
- Q2: Test and evaluate
- Q2: Writing paper (comparison and evaluation of different tangible programming tools, conclusion and recommendation out of my own tangible programming tool)
- Q2: Document future plans and possibilities including business model
- Q2: updated portfolio/showcase including overview of building process of the tangible programming tool