

# PRODUCT DESIGN AND GENDER AS EXAMPLE OF A RESEARCH BASED STYLING MASTER COURSE

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## ABSTRACT

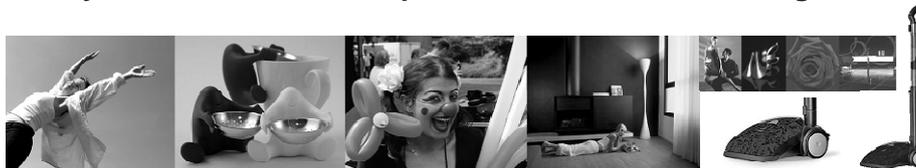
Combining research with a styling approach was one of the goals when developing the master course named 'Design & Emotion'. The master course is part of the master track 'Design & Styling' of the Industrial Design Engineering program at the University of Twente. The other goal was to focus on the current experience and emotion market and in the cases of this paper on gender influences in specific. As the appearance of products influences the buying decisions in many ways, the assignment for the master course was to restyle a existing consumer product, based on its product architecture. For students of the Industrial Designing Engineering program, designing is a very common activity, however the research world sometimes seems rather unknown territory for them. The simulation of a conference with an exhibition showed to be a good course set up for students to get acquainted with styling in combination with research practices. Students gain in-depth research information about the values of their intended market segment, or target group of people/ culture, experience, while simultaneously following the design process. The research information is used in the design process and vice versa. This paper describes the set-up of the course, discusses the associated theory of gender differences in product design and shows student results. The students design cases of consumer electronics products show very differentiating outcomes, and depending on the type of product in combination with the chosen theme, many appealing approaches are used and interesting and surprising designs are made.

*Keywords: Design education, research in design, gender, value centred styling, product design, industrial design*

## 1 INTRODUCTION

The course named 'Design & Emotion' is a master course in Industrial Design Engineering at the University of Twente in the Netherlands. It is part of the Master track Design & Styling. The following paragraph will describe the place of the master course in relation to current society and the focus on gender. After a brief description of the course, its aims and several gender and product design case studies are described. As the research subject of the author is gender and products design, a test among student work was performed as well.

### 1.1 Our society as basis for the set up of the course named 'Design & Emotion'



*Figure 1. Expressing the emotion market/ the experience economy*

The focus of this course closely relates to our current market. A market in which emotional and experience values are important. People want products that trigger them and makes them feel good. [1] See figure 1. Functionality in products is very often taken for granted and the appearance of the product influences the choice of consumers in many ways [1]. This trend can also be seen in the designs of consumer products themselves. Eger [2] , shows that every product follows certain phases in its lifecycle. Newly developed products, such as new inventions and new techniques are often

'wrapped' in a product design. These designs are majorly functional based. As soon as the products are longer on the market, the other qualities of the product improve, such as the ergonomic aspects. Later on, personal values of people are a focus point in the product designs as well. Currently, many consumer products in the market are near their final stages, where the focus on consumer values is important to get attention and interest. See figure 2 for a row of similar irons.



Figure 2. Example of many similar irons in the market (2008)

## 1.2 Gender focus in our current society

From a marketing perspective, the focus on the male versus the female consumer appears to be utterly important, as, according to American numbers, women have great earning and even greater spending power. As example, women spend 70-80% of the consumer goods [3]. The question is how these numbers are translated to the European situation. And, here as well, women have a major influence on the buying decisions. 60% of new car-sales are sold to women in the UK [4]. In the Netherlands, this number is about 30 %, numbers based on sales on women's names [5]. From a consumer perspective, many research has shown that differences between men and women, just as among men and women exists. These are based on sex. But these are also based on gender differences, which are sex determined role models and ideas of the current time. The perspective of the author is, that it is important to realize that gender differences cannot be seen as black opposite to white. Figure 3 will give more insight into this situation. It shows that men and women can have similar qualities, but that typical male and female characteristics exist as well. And a general male or female line can be found.

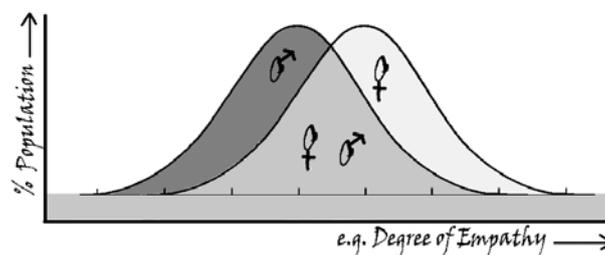


Figure 3. Male and female characteristics in relation to each other (here empathy) [6]

### Gender and product design

Combining these two gender perspectives, we see a market for the female consumer, who appears to be different from the male consumer, and who has major influence on the buying decisions. This is an important aspect for the consumer product designer to take into account in the design process. In the master course 'Design & Emotion', students use these influences in different ways, which will be shown in the case studies.

## 2 THE SET UP OF THE MASTER COURSE 'DESIGN & EMOTION'

The master track 'Design & Styling' follows with its course contents a line throughout history, which is also related to the product phase theory [2]. The course 'Design & Emotion' is the third course in the line of the master track. It steps in at the point of the current experience economy, where emotional benefits are important to people and the design is the communicator of values. In this course, the focus is on the emotional benefits of products for people by focusing on personal values, needs and dilemma's and the way of use. It is more than ethics, in which generalizations are made which are valid for most cultures in the world. Also emics, which refer to being culturally relevant and which come from within the culture [7]. These are basic elements of demand driven designs, in which the values of the consumer, but also the brand identity of the producing company are important to take into account when designing [8]. The course cooperates with a consumer product company, in order to learn the design view in design practice and as extra motivation.

## 2.1 Structure of the course

With 5 EC (European Credit Points), the course has 140 hours to divide over 10 weeks which is one quartile of the curriculum. The course starts with a dense information provision for the students and then students have to work on their own. Every two weeks there are progress meetings in mixed theme groups. As extra motivation for the students, the course works with a company. Students meet the designers of the company in a midterm progress meeting/ workshop.

The deliverable is a value based restyling of an existing product and per year all students work with the same product. One of the aims of this course is that students perform research to gain information about the values, dilemmas and needs of their target group. The result is that the course consist of two lines: a research lateral to a design approach. See figure 4.

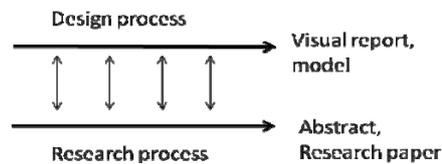


Figure 4. Lateral process for the integration of research and design

The research information must be used during the design process, which in turn, provides questions that need to be studied via research in for example literature. Students have several themes to work with. These are 'Experience, Emotional influences on Product design', 'Gender and influences on product design', 'Cultural influences of Islam on Product design', 'Culture of China and influences on Product design'. This paper focuses on the theme of gender and product design.

## 2.2 Course set up simulates a conference with exhibition

To get students familiar with the research world and also because it's fun, the course imitates a conference with exhibition. The research process follows the steps of a regular conference procedure, with a call for abstracts and the total paper. For the exhibition, students have to apply by presenting their concept ideas first, before submitting their final designs. Therefore the course starts with an 'official' opening of the call for abstracts and the call for concept designs. To specialise the effect, flyers are given to students in the first course, describing the conference, the deadlines and the themes of the conference. The midterm milestones of the course are the abstract and the concept designs. To increase the integration of design with research, the midterm deadlines are planned close to each other. The abstracts are reviewed and the concept designs have to be presented to the professional designers. The final work is presented at the 'conference with exhibition', which is announced by a poster and a program of the day. At the conference, each student presents his or her work in a presentation in which they clarify their design using their mock-up model. The models are presented in the exhibition, for which other people of the faculty are invited as well. Deliverables of the course are a model, a visual design report which shows the design process and shortly some elements from their research, and a paper describing their research in which their design is presented as a case study.

## 3 CASE STUDIES FOCUSING ON 'GENDER & PRODUCT DESIGN'

In this paper, main focuses is on the theme 'gender & product design'. Two cases are described in more detail to see the approach, and of two cases a short description is given to see the effect of the designs. The cases describe the design of, a gender neutral designed vacuum cleaner, a blender for men, two toothbrushes for two different kind of women. The case studies are results selected from different years, as each year works with one product architecture.

### 3.1 Neutrally designed vacuum cleaner

This case, by student Thijs van Dooren, addresses different perceptions on gender. He shows a way to deal with this, in order to properly address the users, resulting in a new and interesting design. Research showed that a lot of research have been done on the differences between men and women in the fields of physiology, social studies, psychological research etc. For the Industrial Design field, the most important issue is the impact these differences could have on products. Women seem to prefer different aesthetics and functionalities of products than men do, however the opinions differ in the way to address them [9-10]. Research has proven that women take care of the largest part of all domestic

work, but recently men are gaining ground in carrying out these domestic activities [11]. Therefore, the vacuum cleaner is designed for both genders to stimulate this equality for the main target group who are cohabiting men- and women of 25 to 45 years old in Western Europe. During the analysis, a rather diverse set of characteristics arose with a clear division in male and female preferences. As a consequence, this resulted in a confusing set for designing a unisex product. Therefore, a new approach was used. Because no product is completely gender-neutral and the persona mood boards imply a rather expressive product, one gender was selected as main reference while taking the other into mind during the process as well. A persona description helped to gain insight in combination with visuals of interior- and product preference. During the re-styling process both male and female characteristics were taken into account. There was some room in the product architecture for change in functionality, and it has been improved for both genders into a functionality and way of use which can appeal to both genders without deterring one gender. The design consists of a cubical vacuum cleaner which is white and light emitting, depending on the functions of the vacuum cleaner. The controls are integrated in the handle to improve ease of use. For Thijs, designing domestic products with strong role patterns should mean: using little stereotypical assumptions, but searching for optimal aesthetics and mainly functionalities for both genders instead. See figure 5.



Figure 5. On left: personas and their surroundings; On right: product mapping & final design

### 3.2 Blender for men

This case is an example of an altogether different approach. Student Maira de Vreede derived a design method based on typical gender differences to alter them in a new situation. The case describes research into designing products for a specific gender, polarizing on designing domestic appliances for men. Many products are being used predominantly by man or by woman. However, domestic appliances are still used by women mainly. This confirms and reinforces the traditional division of labour. Her goal was a product inspired design approach for designing for gender and altering gendered role patterns. Her study consists of three parts. In the first the theory of gender scripts and of altering role patterns through design is explicated [12]. The second part focuses on the theory of redesigning to bend the gender script of a product. This theory can be subdivided into two parts. In the first part stereotypical male/ female differences are discussed [4, 12]. The second part describes a method for redesign which uses products from another domain as inspiration. The described theory is adopted in the redesign of a blender designed especially for men. The new approach is based on the assumption that products men and women use regularly, are attractive or, at least, pleasantly familiar to them. Using characteristics of these products for new products of another category will change the script of these products and make them more appealing for the targeted gender.

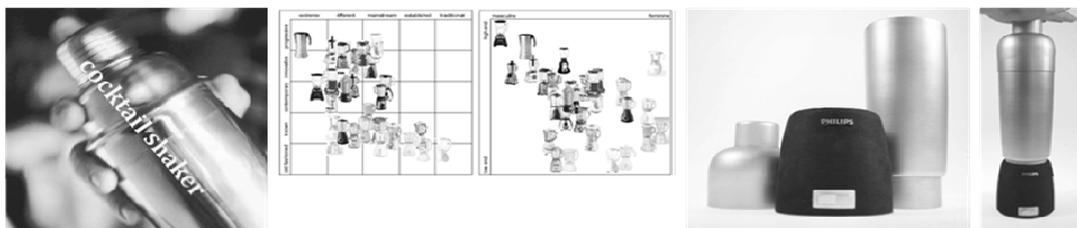


Figure 6. product inspired design approach with for the final design the cocktail shaker as inspiration; current product mapping; the final design. Push and blend.

The blender is a good example of a product that is used mainly by women, and as a consequence, it reaffirms the traditional division of labour, in which the woman is responsible for household chores.

Her goal was that decisive action should be taken to fight sexist stereotypes and to encourage men to take up their responsibilities in the domestic and family sphere. The inspirational stereotypical male products chosen for this case are: a corkscrew, a sanding machine and a cocktail shaker. For each of these products a collage has been made and the emotional and design characteristics have been derived. From all directions inspiration is used in the final design, such as show, trendy, metropolitan, night, exclusive, Las Vegas and together atmospheres. Design characteristics are stainless steel, clean, slightly curved lines, one material and colour, connecting parts by clasp. Interesting to see is that using aspects of products from another domain to redesign a product for a specific gender is an effective way to create innovative products and in this case redesigning a domestic appliance to appeal to man. See figure 6.

### 3.3 Toothbrush targeted at tough and sophisticated women

Based on a study by McDonagh [13] several students were inspired to design for the female market. The study showed that people see two kinds of femininity, the first being the more pink, soft, fluffy type. It is related to young, childlike and a calm, delicate and floating type of femininity. The second type is a darker, sophisticated kind of femininity. It is related to seduction, dominant and passion and to a mysterious, strong and dark femininity. See figure 7.

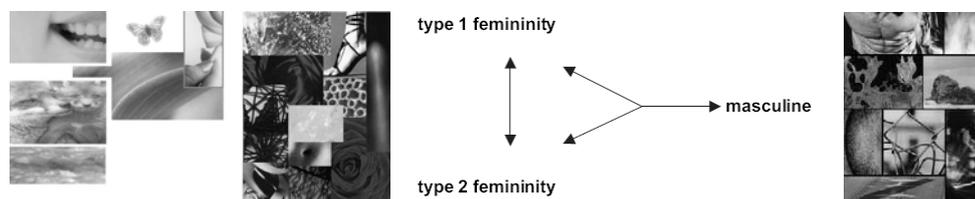


Figure 7. Two kinds of femininity on the left versus one type of masculinity on the right

Kyra Adolfsen designed for the darker, more sophisticated and also self-confident type of femininity. Annemieke Raven focused on a type of femininity that is more in between the two above described femininities. She described her target group as independent, self-assured, optimistic and feminine. They analyzed the values and product style preferences of their group and used that as inspiration for their designs. See the figure below for an insight into their work. Their electronic toothbrushes show a total different style in design. See figure 8.



Figure 8. Designs for women: left the sophisticated, right for the independent feminine type.

## 4 ANALYSING STUDENT WORK FROM A GENDER PERSPECTIVE

As the research subject of the author is the influence of the designer's gender on product designs, she analysed gender results of the course in more detail. Two examples are given in the following.

When asking people in a study which of the above shown electrical toothbrushes they prefer, significant differences arose concerning the likings of the toothbrushes. This shows that the designs distinctly addressed different kind of women [14].

Another test, analyzed whether people design more for their own sex [4]. And indeed, women designed their final design more for women and men designed more for men or gender neutral/ unisex. About three quarters of the women in the gender theme designed their final design for women, and the rest of the women designed for men. About 60 percent of men designed for men, and of the other men, about as much men designed for women as for a gender neutral/ unisex design

## 5 EVALUATION, DISCUSSION AND CONCLUSION

It was very interesting to see that due to the 'conference with exhibition' course set up, students started to play with the research information and alter design methods to be able to better express their ideas. The results of the course, are, due to the set up, interesting designs and design approaches. And in this way, styling becomes a valuable way of designing.

Difficult elements for students were the planning, for which monitoring in the progress meetings and the milestones help. Students felt 'safe' doing research and delayed starting to design. Another undesired 'way out' for students, was to conceptualise on functionality instead of styling. The case of the toothbrushes shows for example, that restyling according to people's values is very well possible and can result in valuable designs. From a pedagogical point of view it was new for the design engineering students to write a paper and to write the abstract before the paper was written. However, it helped them in focusing and extracting the necessary information.

Student evaluation shows that students like the course set up and do not want to skip any part of it. On the other hand, they complain about the amount of work they have to perform. In a study analysing the differentiation of workload over the course, it appeared that students performed too little time at the beginning of the course which resulted in a lot of work at the end. Therefore the midterm meetings were made more important in order for students to work harder at the beginning of the course to help them in evenly spread the work load. As final conclusion, this paper showed that the 'conference with exhibition' framework of this course, is a motivating way for students to get familiar with the research world in a nice way. And, at the same time, it shows it inspires students for more value based designs.

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