

Critical design goggles: Explorative use of critical design perspectives in a video production project

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ABSTRACT

This paper is built on a study that intends to develop a method by creating a set of tools based on selected parts from critical design and critical design theory. The goals of these tools are to function as instruments enabling practical implementation of critical design in a design and/or production process. In this study we develop the tools for critical design work and test our tools in a specific production process of a music video to explore how to apply critical design practically. In doing so we used design-oriented research methods. By bringing together critical design perspectives and the practice of video production, this study wishes to contribute to the work of bridging the gap between theory and practice in critical design.

Categories and Subject Descriptors

H.5.1, H.5.2

General terms

Design, Human Factors, HCI

Keywords

Critical design, video production, design-oriented research method, goggles, defamiliarization, provocation, evaluation

1. INTRODUCTION

Critical design theory has been used in many design-related areas as a practice of reflecting on the beliefs, values, ideologies, norms and behavioral patterns that are incorporated in design and artifacts [1]. Since critical design is a theory that seeks to transform in practice, the challenge today lies in creating practical examples that show how this can be done, which is a necessity for the theory to develop [2]. In this paper we aim to develop a method by creating a set of tools based on selected parts (theoretical methods and perspectives) from critical design and critical design theory. The goals of these tools are to function as

instruments enabling practical implementation of critical design in a design and/or production process. The tools for critical design work were tested in a specific production process of a music video to explore how to apply critical design practically in the design process of a digital video production. By bringing together critical design perspectives and video production practices, this study wishes to contribute to bridging the existing gap between theory and practice in critical design.

2. CRITICAL DESIGN AND RELATED RESEARCH AREAS

Critical design is an area of research that has been used in human-computer interaction (HCI) as a way to get both users and designers to reflect on their own practice and critically question norms and values reproduced in design and in design practice [4]. Critical design is influenced by critical theory and brings critical approaches to design and design practice. The concept of critical design was popularized and developed in the field of interior and interaction design by the design duo Dunne and Raby [1]. They defined critical design in a broad sense describing the notion as a possible way to get consumers to become more critical related to their everyday life and consumption of artifacts. In order to visualize the normative notion of design and design processes Bardzell and colleagues [2] argue that designers and other actors should start by identifying and questioning the norms during the design process. In this way critical design becomes prominent and useful in design processes.

The purpose of critical design is not to satisfy users needs, but rather to get them to understand that their needs are constructed by society [4]. Critical design originates from critical theory, which offers concepts and research on how to understand and reason about norms and how norms are incorporated in artifacts and design in society. However, critical theory says nothing about how to practically create artifacts that in themselves questions and challenges norms and normative understandings, which is critical designs main goal. The issues that we have focused on in our study is namely to go from a theoretical perspective to create a practical method that can be applied in a design process.

The fundamental question that researchers in the field are trying to answer is *how* design practitioners and researchers might transform the theoretical knowledge in the best way to favor the practical expertise in the field. Bardzell and Bardzell [4] themselves are careful to outline any methods for using critical design in practice, but highlights that a framework should be

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helpful for designers to be able to choose between different methods for critical design that can be used in specific design decisions and projects. In other related areas work has been done on bridging the gap between theory and practice. For example Höök and Löwgrens [5] work on strong concepts where they show how the use of specific concepts can be used as generative and carriers of core design ideas used throughout the project and might generate new knowledge and insights in the project. In our interpretation strong concepts might for example be based on theoretical frameworks such as concepts drawn from critical design theory. Inspired by this work we have tried to work with theoretical knowledge in the practical design and production project.

3. METHOD AND DESIGN PROCESS

We have worked with Fällmans [3] perspective on design-oriented research as foundation to develop a method for working practically with critical design perspectives in a design and production process. We have developed a set of tools, based on questions and calls sprung from concepts, theories and research about critical design. The tools have been applied to evaluate and problematize different design decisions in the design process of a video production. During the production process we analyzed and evaluated the tools constantly to be able to illustrate how one can work with critical design and critical design perspectives in a design and/or production process.

3.1 Design-oriented research and methods used in the project

Design-oriented research is an area of research that encourages gaining new knowledge by involving design activities in the research process. One can say that the research constitutes the main field and the design is the means by which new knowledge is acquired [3]. Fällman highlights the potential of design research to provide findings with significance, quality and relevance to the research area.

We have used Fällmans [3] *The Interaction Design Research; Triangle of Design Practice* as a model for our methodological and analytical basis. We interpreted Fällmans [3] triangle freely in our study as follows. First we set out in the area that Fällman calls design studies, in which it is encouraged to acquire general knowledge of various disciplines and be able to compare them. We focused on building a broad knowledge base in critical design and film theory in order to proceed with our study (see Figure 2, step 1). When we enhanced ourselves in the theories and related methodologies in the field, we created three specific tools based on three methods of critical design that we found particularly useful; defamiliarization, provocation and value sensitive design (see Figure 2, step 2). These tools were formulated as questions that could be used in the production process.

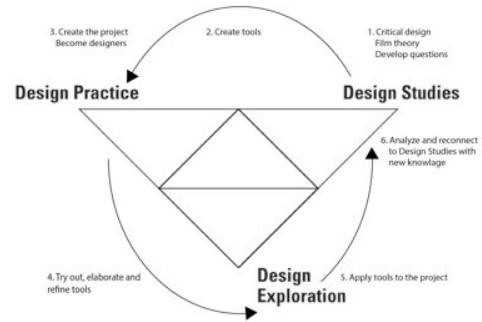


Figure 2. Visualization of our use of Fällmans triangle in our own study and design process of a video production

The next step was to start planning for our music video project, which we chose to relate to the area of design practice in Fällmans triangle. We step in to the role of designers to perform a practical project (see Figure 2, step 3). Fällman [3] argues that by adopting the role of the designer in a production process one comes in contact with various stakeholders and issues in a way that provides access to knowledge that otherwise is inaccessible to an outside researcher in a traditional sense. When we tested our tools (see Figure 2, step 4) we became aware of matters in the project that indirectly affected the design work and thus the use of the tools.

When we present the design, analysis, results and evaluation of our tools we are present in the areas of design exploration and design studies, that we have interpreted as follows; We describe the critical approach inherited to the tools and how they affected the project in regards to decision making and the changes made (see Figure 2, step 5). This can be identified to the area Fällman calls design exploration [3] (see Figure 1). Fällman argues that this research approach means to see beyond the current paradigms and explore new possibilities by questioning the present paradigms. When we analyzed the tools during the design process, we once again moved towards the area that Fällman calls design studies (see Figure 2, step 6). In this part of the project, we discussed and recited the overall conclusions in the project, analyzed how the tools had worked as a method to apply critical design in practice in relation to the theories that they were based on. We also revised our tools creating a final version from the experience we gained through the process.

In our interpretation of Fällman the freedom of movement between the areas can lead to the development of interesting research [3]. By moving back and forth between the areas of design studies, design practice and design exploration we have gained new insights and perspectives in our study. We moved in a circle around the triangle areas and returned to our starting point when we revisited our tools and brought new insights that we gained during the process.

4. GOGGLES AS TOOLS FOR CRITICAL DESIGN WORK

In our process we developed three different questions that each one represented a view of critical design that we worked with during the design/production process. The questions are based on critical design theories; *defamiliarization* [6][7], *provocation* [1][2][8] and *evaluation* [9][10]. We connected each question to a respective pair of physical glasses that we chose to name as goggles (see Figure 3,4,5). We chose to develop physical representations to our questions to further enhance the feeling of

changing perspectives in the process. The goggles also intended to serve as a pervasive reminder of the various questions and thereby attract usage during the production process. The different goggles are representations of the three perspectives, either to be used individually or together as a three-step process.

4.1 Defamiliarization

The goal with these goggles (Figure 3) are to identify what might be seen as normative or natural for oneself, i.e. when the cultural phenomenon has become so integrated in one's way of thinking that it is perceived as self-evident [6]. In this way the designer can expand the ability to reflect and problematize on this in the design process. It requires a certain flair for accuracy and enablement to see details [6] and if the goggles succeed, they may serve as a useful tool for generating new ideas and approaches. The questions associated with the defamiliarization-goggles are formulated to help the designer when applying them in specific design decisions to be able to reflect on what basis decisions are made. We added encouragements (calls) to further clarify the application of the goggles.



Figure 3. Goggle 1: Defamiliarization

Call: Pick out a specific editing decision that you think is interesting and would like to broaden your perspective around.

Question: How has this decision resided? Which circumstances does the decision rest upon?

Call: Imagine that you must justify your design decisions for an outside spectator by creating a persona, such as a person from a different culture, era or a person of different age (for example a child).

4.2 Provocation

Provocation-goggles (Figure 4) are used to raise questions, create reflections about the design and open up for alternative future directions. The result consists not only of a physical product but also of a way of thinking about design and its place as a conceptual space [8]. Provocation assumes to some type of change. All changes are not necessarily provocative, but because of its' extremes, it may be a useful starting point in this case. By thinking in extremes or what one might perceive as provocative can create an idea of how far the span of what we consider to be normal ranges. In this way it's possible to stimulate discussions that lead to an increased awareness of the standards and how to transcend them [2].



Figure 4. Goggle 2: Provocation

Call: Pick out a specific design decision that you find interesting and would like to broaden your perspective around.

Question: How can this design decision be made to provoke the viewer to reflect critically on it?

4.3 Evaluation

The evaluation-goggles (Figure 5) are based on value sensitive design methods. By reflecting on what factors may be affected and what values they represent, these goggles are used in order to better justify the decisions taken before they are performed. These goggles will complement the other two by taking greater account of the inherent factors, actors or stakeholders affected by various decisions. In our case, this could be the values of the viewer, the artist, the market economy or the creator which in turn can affect various areas such as aesthetics, morals, ethics, purpose, impact and so on. Friedman and colleagues [9] argue that it is important to distinguish between what people seem to value according to the prevailing norms of society, and what people really value. Therefore, it is important to have a critical approach to imagined evaluations of the design decisions from indirect stakeholders. There might be a risk that this imaginary evaluation is based on preconceptions that are also based and influenced by norms and normative assumptions.



Figure 5. Goggle 3: Evaluation

Call: Identify the various factors/stakeholders affected by the design decision. Discuss how the values differ amongst them, using the question below.

Question: Does this design decision propose any special values? Do they agree with your thought of what you want to convey? Are different stakeholders affected whose values may conflict?

5. THE DESIGN PROJECT – A MUSIC VIDEO

In design studies it is possible by design practice to gain perspectives on how methods, tools and artifacts work in action [11]. In this study we developed a design and production project to test and develop our goggles in practice. The project was to produce a music video, where we have worked autobiographically with design [12] through the whole production process. The music video is based on a new song, *Aina bonita* by the band *Caseros*.

The musicians have been involved in the project but we had basically all opportunities to affect the design and production of the music video.

5.1 Testing the goggles in the project

In our study we chose to test our goggles on three stages in the design and production process, storyboarding, video recording and postproduction. We also analyzed how the goggles could be revised and improved during the process. The storyboard was used as a first step in the examination of our goggles. During the recording process, the intention was to use our goggles in different occasions that were considered essential for us to make decisions (see Figure 6). During the postproduction the goggles served as a tool when various editing decisions were made and reevaluation of previously decisions from the storyboard where considered.

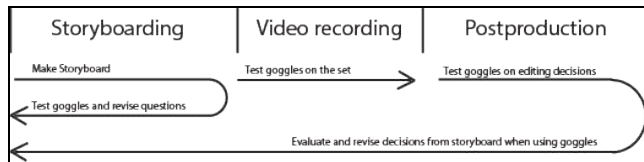


Figure 6. The use of the goggles in the production process

6. RESULTS

The basic idea of the defamiliarization-goggles was to distance the designer/producer from decisions to see how the decisions are based on naturalistic, unconscious values [6]. A prerequisite for this to work is that you choose a specific decision/scenario applied to the tool. We concluded that it was difficult to pick out a particular decision due to preconceived ideas that certain scenarios in this case would be better suited than others. This in turn may be based on how we are tinged out of the existing cultural norms of society in which we have learned to think in a certain type of hierarchical systems when faced with different types of choices. The added call clarifies that it is the user's interest to determine which decision should be reviewed.

At certain stages during the production, we used the goggles in situations when we struggled with important decisions where we could not really decide or we for various reasons lacked inspiration. Using the defamiliarization-goggles in this way, i.e. to open up for creativity and to generate purpose was another way to apply them. As Bell and colleagues [6] argues, one should have a certain attention to detail in order to understand where that which is naturalistic for oneself comes from. But if you manage to look at it with a new perspective, the aspiration is that one begins to reflect on alternative designs and thus it becomes a tool for idea generation. One way to use this tool, that we noticed worked very well, was to imagine a fictional person from a different culture, era or age that had a different outlook on things [6]. By creating a persona, in our case Erik Andersson 12 years old, we had to explain our decisions from a perspective that we might not have thought of before. By repeating the question "why?" from Erik's perspective it forced the defendant person to go back further than the process, and thus it became clearer where the idea originated from. In order to perform this particular activity we noticed that one advantage was that there were two persons involved in the project. One of us could adopt the role of the persona and act upon the personas' perspective, while the other could answer the questions asked by the persona.

Our provocation-goggles intend not only to get the user to produce provocative concepts or artifacts. Our idea is that they

can be used as a way to broaden horizons by seeing the range of how design can be drawn to extremes outside the norm. Then it's up to the designer to decide whether he/she wants to put them in use or not. The reflection is key to us. In our project we tried to stretch many of our editing ideas to extremes, to make them provoking, which made us aware of what we considered normal. None of the ideas that we found very provocative were chosen but by reflecting on them we discovered many new ways to edit on both on a creative and norm-critical level.

In the evaluation-goggle perspective, value sensitive design has worked as a valuable complement to critical design perspectives. We can see many similarities between our work and the methodology Friedman and colleagues [9] presents for applying value sensitive design. The method is partly based on identifying basic values, whether there are conflicts of value between different stakeholders and how to discuss them. Through evaluation goggles we tried to estimate what conflicts of value that could occur and their consequences. Here, we needed to decide whether it was worth it to provoke in this way. We tried to have a critical approach to how we believed the projects' indirect stakeholders would value our design decisions. By doing this we tried to work and evaluate the risk that our decisions are based on preconceptions that are influenced by norms and values in society. We noticed that the discussions that emerged out of the questions related to the evaluation goggles often led to further understandings and new ideas by examining the different types of values inherent in the design process.

7. SUMMARY AND CONCLUDING REMARKS

One critique that one could direct towards this project is that we have created a kind of method for working with critical design in this project, while in the field of critical design some research advocates an anti-method for criticism and critical perspectives. This is a challenge that we have tried to elaborate on by understanding and relate to the paradox of trying to set up a method of how people should think critically without being counterproductive. We have also tried to approach this problem by creating tools that instead of talking about how something should be done, offers the designer an opportunity to broaden their perspective and widen the range of possible choices in a design process. This gives certain prerequisites, which in turn can result in innovative and groundbreaking ideas. The goggles as tools presented in this study might be helpful in this work.

Critical design may seem to be characterized out of paradoxes; to work on a free-market platform where design should be selling and useful, and at the same time striving to challenge and provoke this particular platform's rules and standards. In this study, we demonstrated a way to use critical design in a design/production process of a music video. A prerequisite for making this possible is the digital technology we have used; we believe that it is within HCI that critical design has the best potential to develop. This is because the products often are non-material and thereby require fewer stages of production, lower production, transportation and distribution costs. Digital technology also contributes to a far greater scope for experimentation, just as it has done for us.

Our tools have worked in the sense that we have been able to apply them in a design process that has given us interesting results and new perspectives on critical design. Our ambition is that our goggle tools might open up for a discussion on the continuation of the development of critical thinking and critical design perspectives used for achieving change and improvement through

the implementation of both creativity and questioning in design processes.

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