

# Design Algorithm for Empathy

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## ABSTRACT

Emotional design is a design theory that takes the emotional values/effects of users into consideration in the design process. This theory has been devoted to the appearance of the final product with integration of an emotion and/or interactivity. Emotional design is closely related to user behavior research as it often incorporates physical interactions with the users. However, the study of the user behavior is often limited to the instant interaction with the users without consideration of cultural and social behavior. The article, Design Algorithm for Empathy, emphasizes a more systemic approach within the emotional design process, which should involve strategies created from service design research and that of sociology. The paper argues that the execution of emotional design should involve a significantly more comprehensive research on cultural and social sources. The article is also concerned with the focus merely on the appearance of the design, which may result in superficial and temporary problem solving tactics rather than a more sustainable strategy.

**Keywords:** Emotional Design, User Behavior, Empathy, Systemic Perspective, System Design, Service Design, Sustainable Design

## INTRODUCTION

Emotional design is a design theory that takes the emotional values/effects of users into consideration in the design process. This theory has been devoted to the appearance of the final product with integration of emotion (such as a sense of humor) and/or interactivity. Emotional design is closely related to user behavior research as it often incorporates physical interactions with the users. However, the study of the user behavior is often limited to the instant interaction with the users without consideration of cultural and social behavior.

In his article, *Design for (Emotional) Durability*, Jonathan Chapman states, “the sustainability crisis is a behavioral issue, and not one simply of technology, production, and volume. The behavioral conditions that both drive and influence patterns of material consumption are complex, yet fundamental to effective engagement with a contemporary sustainable design agenda”(Chapman, 2009).

In order to maximize the usability of emotional design, a more systemic approach within the emotional design process is necessary. This systemic approach should involve strategies created from service design research and that of sociology. Otherwise, emotional design—which focuses merely on the appearance of the design—may be perceived as superficial or a temporary problem solving tactic rather than a sustainable strategy.

Affective and Pleasurable Design (2021)

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## **AN UNCOMFORTABLE POTATO PEELER**

During my graduate studies at York University in Toronto, I took a product development course in the university's MBA program. As part of the course assignments, each student in the class was required to present an example of a successfully designed product. One of the MBA students presented the OXO Good Grips potato peeler, designed by Smart Design. OXO Good Grips product lines are popular because of their oversized rubber handles, which provide comfort and a non-slip grip. This potato peeler is known as one of the most significant designs for both OXO and Smart Design. The concept of designing more comfortable kitchen tools came from Sam Farber, the founder and design entrepreneur of OXO International, when he realized that his wife, who had mild arthritis in her hands, was having difficulty gripping uncomfortable kitchen tools to cook ("Our Roots," 2014). After thorough research and prototyping, the ergonomically designed kitchen tools were offered in the U.S. market with a huge success.

A Q&A session followed the MBA student's presentation on how well the OXO's potato peeler was designed to the class. The first question the presenter received was "If Sam Farber loved his wife that much, why didn't he peel the potato by himself, for his wife?" The question was received as a joke, and many people in the class laughed. However, the question allowed me to realize that Farber, as a designer, should have started with an investigation of the real problem instead of instantly jumping to solve the pre-perceived problem: an uncomfortable potato peeler. Farber's approach to fulfilling the instant need of making a more comfortable potato peeler may not tackle the real potential problems that his wife might face.

The fundamental step for emotional design should focus on diagnosing the problems from a systemic perspective. With reputation for being 'problem solvers,' many designers often focus on the solution without evaluating and validating the problem. Before a designer starts conceiving emotional design solutions for a problem, he/she must investigate and define the problem through thorough research from systemic perspectives. Otherwise, the final execution of the design may merely be a temporary solution that only empathizes the superficial level of the targeted users' emotions.

## **DIFFERENT MESSAGE FOR EACH STAKEHOLDER**

After a designer defines the most significant problem, he/she should start initiating ideas to resolve the problem. In order to arouse empathy from the targeted users, the solution may involve a system and/ or service design. In May 2013, Aid to Children and Adolescents at Risk Foundation (ANAR), a Spanish charity, released a public service announcement campaign to help abused children. The campaign was designed by an advertising agency, Grey Spain, and posters were installed on bus shelters (Lu, 2013). A unique aspect of the poster was its interactivity of the various targeted user groups using lenticular printing technique. According to The Visual dictionary of Graphic Design, "lenticular printing technique alternates strips of several images onto the back of a transparent plastic sheet, which contains a series of curved ridges called lenticules. The strips are aligned so that those forming a specific image are reflected to the same point" (Ambrose and Harris, 2006).

This method enabled the users to view different image and text depending on their height. People with a height of 1.35 meters, who are usually children, were able to view an image of a boy with bruises and read the message, "If somebody hurts you, phone us and we'll help you," as well as the European child helpline phone number (Lu, 2013). On the other hand, the people who were taller than 1.35 meters were not able to view the same image or text. Instead, they were able to see an image of the same boy without bruises alongside with a message, "Sometimes, child abuse is only visible to the child suffering it" (Lu, 2013). Within the advertisement concept of "Only for Children," the designer executed the product in a way that could bring different emotional effects for each stakeholder (Lu, 2013). While the poster gave peace of mind and a sense of security to children and communicated that they could get help if they were abused, it also brought adults' attention to the problem of child abuse. Designers must understand how the final execution of design may be interpreted in different ways and it has the potential to evoke different types of emotions from the users.

The final execution of the product, the awareness campaign poster, was designed based on its supportive existing Affective and Pleasurable Design (2021)

systems.

1. Existing bus stations that were accessible to both children and adults.
2. Average height difference between children and adults.
3. Existing organization's supporting service for the abused children

Comprehensive social and cultural research was accomplished in order to integrate these existing systems. Emotional design should integrate a systemic infrastructure, which supports the final execution of product in order to derive its maximum effectiveness. Many current emotional designs often focus merely on the appearance. However, without a proper incorporation of appropriated systems, the design outcomes may not be sustainable.

## CONCLUSIONS

Conventionally, emotional design was more focused on aesthetically pleasing appearances to provide affective experience to the targeted users (Desmet et al., 2007). In his book, *Emotional Design: Why We Love (or Hate) Everyday Things*, Donald A. Norman (2004) argues “that the emotional side of design may be more critical to a product's success than its practical elements” (p. 5). However, awareness of social responsibility and sustainable design is increasing amongst designers. Designers must continue to seek for ways to maximize the effectiveness of their work. Investigation of the tactical relevance with the social, economic, and ecological environment and integration of the research results into the emotional design will provide more than a ‘wow-experience’ for users (Desmet et al., 2007).

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