

## The Robot and Emotional Design

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### Abstract

Emotion is a necessary part of life as it affects the user's feeling and ability to make decisions. In the past, designers did not take emotions into consideration. Utility, function, usability, and aesthetic shape took all the attention when designing products, but designers understood the importance of emotions in daily life. Utility and usability are important, but without Pleasure, joy, excitement, as well as anxiety, anger and fear, our lives would be incomplete.

Just as emotions are essential to human behavior, they are equally important for intelligent machines and especially independent future machines that will help people in their daily activities like robots, and for robots to be successful, they must have emotions that are not necessarily the same as human feelings but are feelings designed to the needs and requirements of the user.

With the great technological progress that we live in today (such as the use of affective computing) robots have played a major role in the daily lives of individuals, especially for the elderly and people with different disabilities, also with other robots to improve the quality of life and increase the sense of independence, pleasure and pride instead of the sense of pity and inferiority caused by a sense of helplessness and weakness.

### Key words

Emotional Design, Robot, Affective Computing.

### Introduction

Emotion is a necessary part of life as it affects the user's feeling and ability to make decisions. Emotion is always the source of judgment, providing you with immediate information about the world such as: here is potential danger, there is potential comfort, this is beautiful, this is bad.

Aesthetically pleasing things enable you to work better, as products and systems that make you feel good are easier to handle, more efficient, and achieve their desired functions, for example when you wash and polish your car. It seems to you that you drive better, and when you wear luxurious and clean clothes, you feel better in your health and psychological state.

Good design is often defined as one that contains pleasing aesthetics and clever, innovative solutions that make us more emotionally connected to some products than others.

Pleasure here is not only achieved from the formal aesthetics resulting from the appearance, which is the first step in arousing pleasure in the products, but there are other types of pleasure such as the pleasure of interaction, the pleasure of use, and psychological pleasure.

“Pleasure” is the emotional, psychological, and practical benefits associated with products. In this definition, it is clear that the practical benefits are those that occur as a result of the tasks for which the product is used. For example, the practical benefits of an automatic washing machine are clean, refreshing clothes. Emotional benefits are related to how the product affects the user’s mood. Such as if the products are interesting and fun, or enhance self-confidence. For example, an electronic game may be exciting and fun for the user, while an elegant new dress may give the wearer a feeling of self-confidence. Psychological benefits are those related to the sensory and aesthetic pleasures associated with products, for example, the user may notice or recognize the product as a beautiful item or perhaps enjoy the physical sensation of touching or holding a particular product.

### **Research Problem**

Aspects of building a robot that can express and interact humanly with the user through muscles and ligaments tightly interwoven with the emotional system.

### **Research Importance**

- The importance of research for the designer:

The ability to use assistive emotional computing for people with special needs.

- The importance of research for the user with special needs:

It enables him to live his life more emotionally and independently and feel pleasure and happiness.

### **Research Objective**

- Adding emotion to the robot so that it becomes a type of emotional digital technology that assists people with special needs.

- Using technology to reduce the negative emotional effects of incapacity and handicap on people with special needs.

### **Force The Search**

Emotional design has a major impact in the field of assistive robots for people with special needs.

### **Research Methodology**

The research follows the deductive method.

## **Results and recommendations**

### **First: the results**

- A good product should not only provide functional satisfaction and comfortable fit, but it should also present an emotional appearance from the user's point of view, and be suitable for consumers' tastes. Therefore, creating a product that suits consumers' emotional tastes to benefit

from digital technology, especially from the elderly, has become an important issue in design.

- Happiness and enjoyment in the use of products does not come by coincidence, and it is something for wishfulment, but it is something that we can design through the creative human activity and the industrial designer is able to solve these problems. An unexpected difference for the consumer.
- Knowing the significant impact of emotional robots on the daily lives of people with special needs.

### **Second: Recommendations**

- Interest in applying emotional design in industrial design products in general and for people with special needs.
- Interest in emotional computing and designing special software for each category of people with special needs
- Interest in modern digital technology such as robots and assistance for people with special needs.

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