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EMOTIONAL USER EXPERIENCE IN WEB DESIGN: THE KANSEI ENGINEERING APPROACH

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ANITAWATI MOHD LOKMAN

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ABSTRACT

The use of the Internet has become an essential part of our everyday lives. People surf the website with various purpose to accomplish their personal goals. Inline with the thriving growth in the use of website, research in website design has expanded the focus from functionality and usability to the full range of human experience. In recent years, Human Computer Interaction (HCI) issues related to web applications have shifted its focus to address emotional aspect of website design. This is mainly due to the evolution of website functions from conveying information to the extent of providing persuasive engagement with visitors through the lively process of perception, judgment and action. Over the Internet, visitor's perception of websites significantly affects their browsing behaviours and purchase decisions. With its nature of unlimited availability, online businesses are exposed to vast competition. Hence, an online business need to offer a website that could capture visitor's attention at first sight and persuade them to stay longer on the website, to win over competitor. Supported by previous literature involving studies on user experience, this research argue that to motivate stickiness to website, the website must be able to cultivate emotional engagement and elicit positive user experience. To enable the development of such website, the knowledge of how design elements influence emotion must be pursued so that we could engineer the emotion into a website design. This research was performed to systematically engineer the aspect of emotional user experience in Website UID. The research formulated its research framework based on Kansei Engineering (K.E.) methodology. Using 35 valid website specimens, 40 emotional keywords, and 120 evaluation subjects, the research performed experiments to assess users' emotional responses to Website UID. Multivariate analyses were performed to the average evaluation result obtained from subjects to determine the concept of emotion in Website UID and investigate the associated design elements to be used as a guide in designing Kansei Website, a website that embeds target emotion in its design. Based on the results, the research proposed Kansei Web Design Guideline©, a guideline to the design of Kansei Website. A confirmatory study was performed to provide justification to the guideline. Five prototypes were developed according to the proposed guideline, to be used as specimen in the confirmatory study. A comparative analysis was performed to analyse differences in the structure of emotion formed by the assessment of emotion before and after the implementation of the guideline. The result has shown a clearer formation of the structure of emotion in the newly developed prototypes, and thus provided some hypothetical credence that it is possible to design website that embeds target emotion with the use of the guideline. Based on its results, this research developed Kansei Web Design Guideline©, Kansei Website Taxonomy, Method to Engineer Kansei Website, and Method of Emotion Detection. Additionally, the research has also developed Kansei Design Model and Periodic Table of Kansei Web Design Elements©. Although all of these outcomes were based on experiments that were performed with some limitations and constraints, they lend some novel foundations in the engineering of emotion in Website UID. Further testing of the experiments in a larger and more diverse population and variable could be performed to support the internal validity of the research claims.

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