

Effective UI Design to Enhance User Interaction

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Background

The objective of this project submitted to the American Society for Engineering Education (ASEE) is an exploration into Human-Computer Interaction (HCI) with a specific analysis of a software system. As an honor senior at Southern Polytechnic State University (SPSU), I am conducting an in-depth research related to my major, Software Engineering, and a specific study of effective user interface (UI) design.

Purpose

Technology has undeniably become a necessity in our everyday life. It is more of a challenge when ineffective interaction problems arise in the daily usage of the computational devices such as cell-phone, tablets, laptops, etc. The steps between the user and their technological devices demands UI designers to be able to develop better UI in order to enhance, and maximize the interaction. Therefore, the purpose of this thesis is to research and study how to effectively design UI for software systems.

Design/Method

This project focuses on Human-Computer Interaction (HCI), as well as introduces and analyzes good UI practices that can provide the UI designers the necessary knowledge for them to conquer their challenge, and to accomplish their task. Particularly, this project will be analyzing the following four questions:

- 1) Who is the user of the system?
- 2) What is the task the system is used for?
- 3) What is the work context and the environment in which the system will be used?
- 4) What is technically and logistically feasible?

Results

The results of this project include the following:

- 1) A pre-questionnaire survey template that can be used to determine the true-user of the system
- 2) A user-profile template that can be used to determine the distinguished characteristics of the users.

Above all, the project findings are the main objective of my research and study.

Conclusions

The data, results, and conclusions of this in-depth study will be given in the poster session in the ASEE Conference in March 2013. The complete project will report the effectiveness in the specific user interface evaluated.