**Online Activity No. 8 and 9: Applying the User-Centred System Design Process**

**Objective**

1. Innovate an existing interactive system and computer technology.
2. Perform and apply UCSD.

**Materials**

* Personal computer
* Any software for (Computer aided designs)or programming language

**Background**

Atakan(2006), UCSD is used in the design process. Reasons are evaluated why traditional-technology-focused design processes why it may result in unusable systems-and the consequences of those unusable or useless systems. This leads directly to a consideration of the different methodologies that go to make up a user-centered system design process.

**Procedure**

1. Identify a scope or agenda
2. Format for the document is given below as guide for the designers in the making the output both the document and design.

**Chapter I. Introduction**

**Background of the study**

In the digital era, many student teams rely on chat groups or simple documents to manage project ideas. However, these tools are often not designed for structured idea management. Ideas get lost in long chat histories, there is no clear way to vote or prioritize, and tracking the progress of ideas becomes difficult. This lowers team engagement and can lead to missed opportunities. SparkBoard is a collaborative idea board app designed to address this gap by offering an organized, user-friendly platform where ideas can be posted, voted on, commented on, and tracked — helping teams turn ideas into action.

**Statement of the problem**

Students often experience delays in posting and prioritizing ideas due to the lack of a centralized platform. The current systems (group chats, Google Docs, Trello) are not designed to manage idea lifecycles, making it hard to follow which ideas are gaining momentum. Additionally, users lack clear feedback on the status of ideas, causing confusion and reducing collaboration.

Example: ***There is time delay in searching and retrieval of document from various departments.***

Per problem, there should be a very **detailed** and **clear description** of what the problems of the existing design of the interactive system is currently experiencing. Without this, the problem cited will not be validated and may result to non approval of the design created by the group.

**Assumption of the study**

The redesigned SparkBoard system will feature a clean, mobile-responsive interface that enables quick posting and organizing of ideas. It will include visual feedback on votes and idea status and provide easy navigation for posting, voting, commenting, and tracking progress. These features are intended to address the current problems and improve overall usability.

**Significance of the study**

SparkBoard will benefit a wide range of users. Students will enjoy faster and more organized idea management. Team leaders will have better tools to prioritize and track project ideas. Faculty mentors can monitor team progress more easily. Developers will have fewer usability issues to troubleshoot thanks to the system’s intuitive design.

**Chapter II. Research Design**

This project follows the User-Centered System Design (UCSD) model, which emphasizes early and continuous focus on users. Our team applied stages such as task analysis, requirements gathering, and iterative prototyping to ensure that SparkBoard meets user needs. We also relied on our own experience working in student teams to inform design choices and improvements.

This section discusses the design process model used by the group wherein it is composed of the following stages:

1. **Task Analysis**

Managing project ideas involves several key tasks: posting new ideas, voting on promising ones, commenting to give feedback or improvements, and tracking the progress of ideas from “New” to “In Progress” to “Implemented.” A flowchart was created to visualize this hierarchy and the steps involved in the user journey.

1. **Requirements Gathering**

Our group gathered data through informal surveys of students, interviews with project team leaders, and observation of current practices in managing ideas.

**User Requirements:** Easy and intuitive interface for idea posting, voting, commenting, and tracking.

**Functional Requirements:** Ability to post ideas, comment, vote, and update status.

**Data Requirements:** Store ideas, comments, votes, and status updates.

**Environmental Requirements:** Accessible on both desktop and mobile devices, usable in low-bandwidth environments.

**Usability Requirements:** Simple navigation, visual feedback, minimal learning curve.

**Designer’s Requirements:** Buildable using common web/mobile frameworks, visually aligned with Team RHL brand colors and style.

1. **Storyboarding and Prototyping**

The storyboard illustrates a typical user flow: logging in, posting an idea, voting on ideas, and tracking progress.  
The prototype includes wireframes for key screens: Home Feed, Post New Idea form, Comment section, and Idea Status Tracker. Each part of the interface is designed to be simple, with clear calls-to-action and visual feedback, allowing users to interact intuitively with the system.

1. **Evaluation of prototype**

Use heuristic evaluation with format given below. This is the criteria of how the design will be graded. **(Select the best design among 3 to 5 alternative designs within your team and evaluate)**

Evaluation Criteria (Based on the 10 heuristics of design evaluation)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Area of Evaluation** | **5** | **4** | **3** | **2** | **1** |
| 1. **Visibility of System Status**  * - The system design provides appropriate feedback like message prompts in response to user actions. * The message prompts are clear, visible and understandable. |  |  |  |  |  |
|  |  |  |  |  |
| 1. **Match between the system and the real world**   - Used words, phrases and concepts according to users’ language rather than system oriented words and computer jargons. |  |  |  |  |  |
| 1. **User control and freedom**   - The system design provides ways of allowing users to easily “get in” and “get out” if they find themselves in unfamiliar parts of the system. |  |  |  |  |  |
| 1. **Consistency and Standards**  * - The colors, text, labels, buttons and other elements in the design are uniform from start to finish**.**   - Text and icons are not too small or too big.  **-** Menus and other features of the system are arranged and positioned in a consistent way. (For ex. If your website has navigation buttons on the top under the page title on one page, the users will automatically look there for the same features on other pages. |  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| 1. **Error Prevention**   - The system design provides an automatic detection of errors and preventing them to occur in the first place.  - Idiot proofing mechanisms are applied |  |  |  |  |  |
|  |  |  |  |  |
| **F. Help users recognize, diagnose and recover from errors**  **-** Error messages and the terms used are recognizable, familiar and understandable for the users. |  |  |  |  |  |
| **G. Recognition rather than recall**  **-** Objects, icons, actions and options are visible for the user.  - Objects are labeled well with text and icons that can immediately be spotted by the user and matched with what they want to do. |  |  |  |  |  |
| **H. Flexibility and efficiency of use**  - The system design provides easy to navigate menus.  - the system does not make wasteful time of system resources. |  |  |  |  |  |
| 1. **Aesthetic and minimalist design**   **-**Graphics and animations used are not difficult to look at and does not clutter (mess) up the screen.  - Information provided is relevant and needed for the system design. |  |  |  |  |  |
| 1. **Help and Documentation**   **-**the system design provides information that can be easily searched and provides help in a set of concrete steps that can easily be followed. |  |  |  |  |  |

**Chapter III. Conclusion and Recommendation**

This redesigned system shows how applying UCSD can directly solve usability issues in traditional scheduling platforms. Through structured interviews, surveys, and usability evaluation, the group identified core user needs and addressed them with an intuitive, responsive design.  
  
It is recommended that future versions include multilingual support, accessibility tools for PWDs, and integration with messaging apps for reminders.