

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 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

- a.) Identify a scope or agenda
- b.) 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 many academic institutions, students face difficulties when accessing and organizing their academic documents, such as course syllabi, grading rubrics, and assignment submissions. These are often scattered across different platforms or stored offline, leading to confusion, misplacement, or lack of access. To address this, the group proposes an **Academic Document Organizer Web App** that centralizes and streamlines the storage, retrieval, and management of course-related files. This innovation is inspired by the need for accessible, well-organized academic resources for both students and educators in a hybrid or online learning environment.

Statement of the problem

There is a lack of centralized and efficient system for organizing and accessing academic documents, which leads to time wasted in locating files, duplication of submissions, and missed deadlines due to disorganization.

Assumption of the study

The proposed system will feature categorized folders for each subject, deadline reminders, a document versioning system, and easy upload/download functions. It will address the current disorganization problem by ensuring all academic files are stored in one place with smart labels and filters. Notifications and deadline alerts will assist users in keeping track of submission dates, while real-time syncing will avoid version conflicts.

Significance of the study

- **Students** – Can easily organize and retrieve academic files, helping them manage deadlines and study more efficiently.
- **Instructors** – Can upload and distribute materials in a unified system and monitor students' submissions in real-time.
- **Program Heads** – Can ensure subject requirements are met through standardized documentation tracking.
- **Academic Coordinators** – Can assess compliance and progress more effectively through centralized access to student outputs.
- **IT Staff** – Will find it easier to manage a single platform with structured access levels and backup systems.

Chapter II. Research Design

The group should be able to identify here the steps of the design process model used and it's corresponding description from the reference book. Aside from it, the researchers should also relate their own experiences and add it into the description of every stage of the design process model.

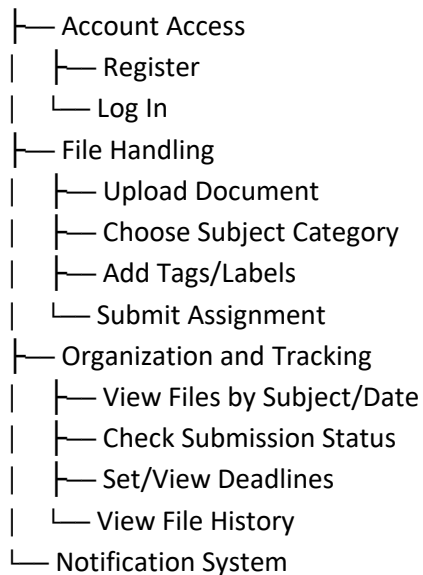
User – Centered System Design Process

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

A. Task Analysis

The proposed system, **Academic Document Organizer Web App**, allows students and instructors to upload, organize, retrieve, and manage academic documents in a centralized online platform. Tasks include account registration, file uploading, document tagging, deadline setting, assignment submission, and version tracking.

Main Task: Academic File Management



- └─ Enable Reminders
- └─ Receive Alerts

B. Requirements Gathering

The group gathered necessary data using the following methods:

Interview – We interviewed three students and two instructors. They expressed difficulty managing files across different platforms, which leads to forgotten submissions and disorganized coursework.

Survey/Questionnaire – We distributed an online form to 30 students. 86% said they had problems organizing their school files and wanted a single platform for storage and deadline reminders.

Observation – We observed students' current file management methods (e.g., using Messenger, email, or their phone gallery), which often resulted in misplaced or duplicate submissions.

Storyboarding and Prototyping

Storyboard Description

1. **Login Screen** – User enters credentials.
2. **Dashboard** – Subjects and recent files are displayed.
3. **Upload Page** – File is uploaded, tagged, and organized.
4. **Deadline Reminder** – User sets due date for submission.
5. **Notification Alert** – System sends reminder notification.

Prototype Description (User Manual Format)

- **Login/Register** – Email and password fields with validation; “Forgot password” feature available.
- **Main Dashboard** – Shows all enrolled subjects and recent files. User can click a subject to view/upload documents.
- **Upload Interface** – User selects file, assigns it to a subject, adds tags, and sets submission status.
- **Reminders Tab** – Allows users to enable pop-up and email reminders for upcoming deadlines.
- **History/Version Control** – Users can view previously uploaded versions and see edit timestamps.

C. Evaluation of prototype

A total of three design alternatives were created. The best design was chosen and evaluated based on Nielsen's 10 Usability Heuristics using the following criteria:

D. (Insert the **Evaluation Table** from your template here with ratings for each heuristic like Visibility of System Status, Error Prevention, etc.)

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

Area of Evaluation	5	4	3	2	1
A. 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.	✓				
	✓				
B. 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.	✓				
C. 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.	✓				
D. 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.	✓				
	✓				
	✓				
E. 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.	✓				
I. 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.	✓				
J. 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

Conclusion

The development of the **Academic Document Organizer Web App** was guided by the principles of User-Centered System Design (UCSD), ensuring that each stage of the process was aligned with the real needs of its users — students and instructors. Through interviews, surveys, and observations, we identified key problems in the current document management practices within academic environments: disorganization, missed deadlines, and difficulty in accessing files across multiple platforms. By addressing these issues, our proposed system integrates features such as centralized storage, deadline reminders, subject-based organization, and version tracking, ultimately enhancing productivity and reducing user stress. The prototype was evaluated using Nielsen's usability heuristics, confirming that it met essential standards in visibility, error prevention, user control, and minimalism.

Recommendation

The group recommends the implementation and further development of the proposed web app to academic institutions, especially those operating under blended or fully online learning setups. We also recommend conducting a pilot testing phase within a small group of students and teachers to gather more feedback before full-scale deployment. Future improvements may include integrating third-party storage services (e.g., Google Drive), enabling collaboration features among classmates, and expanding support for mobile platforms. Through continuous refinement and user involvement, this system has the potential to become a valuable academic tool that fosters better organization and academic performance.

