**ONLINE ACTIVITY 7: Creating User Model**

**Objective**

1. Design a user model in User Centered System Design(UCSD)
2. Evaluate interactive systems using Nielsen’s Heuristics

**Materials**

* Personal computer
* MS Word

**Background**

Atakan(2006), To understand UCSD, you first need to understand the people who will use the systems. One way to do is through the concept of user modeling. A user model is a psychologically valid way of depicting the people who will use the systems, and whose needs and preferences will be considered when designing those systems.

**Procedure**

1. Look for two existing websites and do the following:
2. Identify possible expected users of the said websites
3. Evaluate the designs of the two websites according to Nielsen’s Heuristics. Justify

Table 1: Evaluation Criteria (Based on the 10 heuristics of design evaluation) for website 1.

| **WEBSITE NAME:**  **Duolingo** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **URL:** [https://www.duolingo.co](https://www.duolingo.com/)m | | | | | |
| **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. | ✔️ |  |  |  |  |
| ✔️ |  |  |  |  |
| **Evaluation**  **Duolingo provides instant feedback (e.g correct/incorrect answers, progress bars, and streak counts)** | | | | | |
| 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. | ✔️ |  |  |  |  |
| **Evaluation**  **The platform uses familiar language learning terms like lesson practice and checkpoint** | | | | | |
| 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. |  | ✔️ |  |  |  |
| **Evaluation**  **Users can exit lessons and switch languages, and skip questions. However, some controls like resetting a course are a bit buried in menus** | | | | | |
| 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. | ✔️ |  |  |  |  |
|  |  |  |  |  |
| ✔️ |  |  |  |  |
| **Evaluation**  **Icons, fonts, layout, and interaction styles are consistent throughout sections of the app and website.** | | | | | |
| 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 | ✔️ |  |  |  |  |
|  |  |  |  |  |
| **Evaluation**  **The platform uses simple exercises and provides hints. There is no penalty for trying again.** | | | | | |
| **F. Help users recognize, diagnose and recover from errors**  **-** Error messages and the terms used are recognizable, familiar and understandable for the users. |  | ✔️ |  |  |  |
| **Evaluation**  **When having a mistake,4 duolingo gives visual feedback and corrections, through the explanations for some answers are terminal.** | | | | | |
| **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. | ✔️ |  |  |  |  |
| **Evaluation**  **Navigation is icon based and easy to understand** | | | | | |
| **H. Flexibility and efficiency of use**  - The system design provides easy to navigate menus.  - the system does not make wasteful time of system resources. | ✔️ |  |  |  |  |
| **Evaluation**  **Lesson are short and adaptable** | | | | | |
| 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. | ✔️ |  |  |  |  |
| **Evaluation**  **Duolingo’s interface is clean, colorful, and simple.** | | | | | |
| 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. |  | ✔️ |  |  |  |
| **Evaluation**  **It offers a help center, FAQS, and community support, but in lesson guidance for more complex grammar or language rules could be more detailed.** | | | | | |
| **SUGGESTION FOR IMPROVEMENTS** | | | | | |
| **Provide grammar tips or vocabulary notes directly within the lessons for deeper understanding.**  **Make it easier for users to reset their course path.**  **Add clearer explanations when users made a mistake.** | | | | | |

Table 2: Evaluation Criteria (Based on the 10 heuristics of design evaluation) for website 2.

| **WEBSITE NAME: National weather service** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **URL:**  **https://www.weather.gov/** | | | | | |
| **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. |  | ✔️ |  |  |  |
|  |  |  |  |  |
| **Evaluation**  **Alerts and current conditions are updated live but some element like loading radar maps have minimal feedback** | | | | | |
| 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. |  |  | ✔️ |  |  |
| **Evaluation**  **It uses standard weather terms, but some jargon like shortwave trough may confuse general users** | | | | | |
| 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. |  |  | ✔️ |  |  |
| **Evaluation**  **Navigation allows backtracking, but no clear undo actions** | | | | | |
| 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. |  |  | ✔️ |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| **Evaluation**  **Main layout is somehow consistent but different pages radar vs forecast look behave differently** | | | | | |
| 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 |  |  |  | ✔️ |  |
|  |  |  |  |  |
| **Evaluation**  **No validation for search inputs** | | | | | |
| **F. Help users recognize, diagnose and recover from errors**  **-** Error messages and the terms used are recognizable, familiar and understandable for the users. |  |  |  | ✔️ |  |
| **Evaluation**  **Error messages are vague or not provided when search fails.** | | | | | |
| **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. |  |  | ✔️ |  |  |
| **Evaluation**  **Some icons and links are clear (e.g., forecast maps), but others rely on users memory** | | | | | |
| **H. Flexibility and efficiency of use**  - The system design provides easy to navigate menus.  - the system does not make wasteful time of system resources. |  |  | ✔️ |  |  |
| **Evaluation**  **Offers quick access to local weather with ZIP search, but lacks personalization or saved locations.** | | | | | |
| 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. |  |  |  | ✔️ |  |
| **Evaluation**  **The layout is cluttered with many links. It is overwhelming, especially on mobile.** | | | | | |
| 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. |  |  | ✔️ |  |  |
| **Evaluation**  **A help section exists, but it is hard to find.** | | | | | |
| **SUGGESTION FOR IMPROVEMENTS** | | | | | |
| **Reduce clutter by prioritizing most needed information.**  **Offer autocomplete suggestions.**  **Use a consistent layout and menu style**  **Help general users understand technical weather terms**  **Redesign mobile view to present essential information first** | | | | | |