Team 3 Explorers

Heuristic Evaluation

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Description of Undergraduate Design:

The Team 3 Explorers have provided a redesign for the form section on the Keweenaw Explorers Time Traveler website. The form allows users to upload a story with media attachment and then connect that story to a point on a map. The design provided by the team consists of a white back ground with a blue button that says “Add your story”. Upon clicking the button, a pop up appears giving a brief description of how you will upload and add your story with a start button at the bottom. The user then navigates through a sequence of pop ups, each page asking for a different piece of input via text box entry or media upload. There is an option at the bottom of each page to navigate to the previous page. Finally, the user arrives at a review page before being able to submit. The new design differs from the design currently featured on the website in that the user is now able to upload video media -rather than a pdf or other image format- and the form is now a series of pop-ups rather than one page. Color scheme, format, and language are all very similar to the original.

UI Domain:

The UI domain considered is form and media upload based. The form portion includes mouse-click button selection and text box entry. Media upload is featured within the form and includes the addition the ability to add new types of media files such as video, this domain is included in the back end of the development, though it will end up giving users another option/ added feature.

Heuristic Usability Principles:

The following heuristic principles were taken from Nielson Norman Group’s public website. Descriptions have been lightly edited and only the heuristics that were used to evaluate the application are listed. A link to their full, original work can be found below in the References section.

Visibility of System Status
The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

Match between System and the Real World
The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

User Control and Freedom
Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

Consistency and Standards
Users should not have to wonder whether different words, situations, or actions mean the same thing.

Error Prevention
Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

Flexibility and Efficiency of Use
Accelerators — unseen by the novice user — may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

Aesthetic and Minimalist Design
Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

Help Users Recognize, Diagnose, and Recover from Errors
Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

Usability Concerns:

- **Start Page:**
  The start page for the form seems to lack value for the user. Consider ***Flexibility and Efficiency of Use*** as well as ***Aesthetic and Minimal Design****.* Is it efficient for that page to be there or does it cause unnecessary clicks. Consider pairing with “Advanced User” point below.

- **“Advanced User” Option:**
  In the class presentation an “Advanced User” option was considered for the form. The description given was that the start page (mentioned above) would feature an option to skip to the editing page and all information could be input there. Consider ***Consistency***

and Standards and ***User Control and Freedom*** when designing. Ensure that the user knows what will happen when they navigate to the "Advanced User" page and that the format is consistent with the rest of the pop up design.

- **Changing Format When Editing:**
  It may be confusing to some users to get to the end of the 'pop-up' form submission process and be faced with a new format. Consider ***Consistency and Standards***. Does your user know why they are seeing their information in this way? Does it look like what they have seen before? Maybe there could be a preview of their story instead and the option to edit at the bottom of the page or via a small pencil symbol next to each entry.

- **Language Use:**
  The language for year and 'story' change throughout your document. Choose one language usage and stick to it. Be sure it is consistent with the original website and within your own addition (***Consistency and Standards***). As well, the language choice on the pop-up where the user is asked to input their name is confusing. Consider ***Match between System and the Real World***. Ensure your language choice is clean, simple, and sounds like something they would hear if a friend were explaining it to them.

- **Use of Aesthetic:**
  See ***Aesthetic and Minimalist Design*** and ***Consistency and Standards***. Be sure to include an updated version of the button for your form as well as the pop ups. The current version is easily hidden within the maps and can use a re-work. Please also consider if the aesthetic of your current form is at its best. Bootstrap is being used to create the form-but do we know if that is a constraint given by the scientist? Is there an option to use a different format? It is necessary to ask so that they can be given your best work possible.

- **Blank Story Submission:**
  What happens if users submit a blank story or certain blank fields? How will they receive feedback that they cannot submit an empty form? Consider going above and beyond the bare minimum provided by the program you are using to code. See ***Help Users Recognize, Diagnose, and Recover from Errors***. As well, how will you prevent them from making such errors? Perhaps on your final page you could include a small asterisk (*) near each required piece of information with a notation at the bottom that all asterisked fields are required. Reference ***Error Prevention*** in the list above.

- **Page/ Progress Marker:**
  If the succession of pop-up windows is to be used, an indication of the user's progress should be included. This could exist in the form of a progress bar, a page number (i.e. *Page 2/5* appears in one of the corners), etc. See ***Visibility of System Status***.

- **Comparisons to Current Form in Existence:**
  Additional notes include features not included on your walkthrough that could be useful to your user. The current design features a poorly designed pop-up that instructs the user to choose a point and map year before they are directed to the form. This could cause some confusion as the user is asked to insert year data several times and the pop-up with the directions is not easily seen. Consider deleting the pop up and request for year and point at the start all together. Let your user walk through the form, then once they have filled out all necessary information, allow them to select a point. This does away with the user inserting the year multiple times, and could be a tactic to help prevent added points with no story. ***(Error Prevention, Aesthetic and Minimalist Design and Consistency and Standards.)***

Critical Concerns:

The following critical concerns are listed in order of importance, with 1 being the most important. Though all suggestions should be considered for design improvements, it is highly recommended that the following 4 be adjusted. Example stories are provided for further explanation as to why the changes are important for the user.

1. **Page/ Progress Marker:**
   You are in high school trying to upload a story to the Keweenaw Time Traveler Explorer for a class assignment. You have a busy week. You play soccer, you have band progress, and you also need time to study for the SAT. You finally found the button to upload the story and you start to fill out the information. The pages seem to go on forever and you are unsure how much longer you have until you will be finished. You need to be dressed and ready for soccer in 20 minutes. You frantically glance around the page to try and save your progress with no such luck- so you log out and rush to get ready for practice. You had no idea you were only one question away from finishing and you get a zero on the assignment because you simply and incorrectly thought you had run out of time.

2. **Start Page:**

   You are a big fan of the Keweenaw Time Traveler Explorer. You've uploaded several stories over the years. You're starting to get really frustrated with the intro to the form. You know the process now- you just want to upload your information and get on with

your day. You see why the start page was nice for maybe your first time, but now it's just a waste of your time to click through it. You begin to upload less and less as the whole process is starting to feel less fun and like more of a hassle.

3. **Language Use:**

   You are using Keweenaw Time Traveler Explorer for the first time. You find and open the upload form and begin to enter information. You think you have everything- but then you notice the last page asks for a year range for your story. You thought you already input the year and you also thought you provided an exact date. Upon second glance you see the date you provided is listed- but you are unsure whether they want a decade or actual date. You backspace and change to a date range out of confusion. You make the upload, but now your submission isn't as exact of a description as you had to offer and you're disappointed that you were unable to share that information.

4. **Comparisons to Current Form in Existence:**
   Imagine being an older user who did not grow up in the age of technological advances. You are excited about the Keweenaw Time Traveler Explorer. You want to share and connect with your history, your stories from growing up in the Keweenaw- but you have limited experience with computers. You log into the web app, even find the explorer page. Even then, you find the button that was a little difficult to locate, but you never see the pop up at the top of the screen telling you to select a location. You can't see the instructions, so you give up out of frustration and never make it far enough to fill out the form and share your story.

References:

Nielson, Jakob. "10 Heuristics for User Interface Design." Nielson Norman Group, 1 Jan. 1995, www.nngroup.com/articles/ten-usability-heuristics/.