HCI HW #1
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Project: QA Classifier

# Usability Goals of the QA Classifier

## Effectiveness:

Our user interface design is aimed at providing a simple and easy user experience. The main usage of our website is to search for educational videos. We are making our website interface minimalistic such that the user can easily spot the search box, video categories, and the upload button during his or her first-time use of our website. Putting the search box at the center of the website will allow users to go straight to searching for the videos they are looking for. It is simple and effective because it is similar to the user experiences simulated by search engines like Google. We are also making the other two main features of browsing by categories and uploading videos visible on the top left and top right corners. The categories button is featured as an expanding menu which, after the user clicks on it, expands to a list of course subjects for better visibility. After the user searches for some topics, the related videos will be listed as one column at the center. The information of the videos will also be listed on the right side since we intend to let the user have an in-depth look into the video contents before clicking. When a user is watching a video, timestamps for certain tags will appear below the video player. This feature will let our user effectively use the main purpose of our website, which is jump right into a specific topic within the video. The upload panel is straightforward such that the user simply needs to choose a file, enter a topic, and choose a course category before uploading.

## Efficiency:

Besides the effectiveness of our user interface, the efficiency of it is also really important. Our clear layout of search, upload, and browse categories functionalities can let users perform these functions faster and with less effort. By putting the search box at the center of our website, users can go straight to search for videos or browse by categories at their first glance. Searching is straight forward like using Google. If the user is looking to upload a video, the upload button is right at the top right corner that can be accessed with ease. The uploading process only requires the user to choose the video file, enter the topic and category, and click upload. There is no difficult or unnecessary part of the process, and thus we are making users reach maximum efficiency while using our website.

## Safety:

In order to protect users from encountering unexpected or undesirable situations within the user interface (UI), we will be restricting the use of buttons exclusively to basic functionalities. Because our system serves mainly as a video searching application, minimal

options for customization throughout the application will be ideal. Rather than allowing the users to make multiple changes and modify interactive forms, which can increase the chance of faulty input, we, as developers, will decide what kind of privileges users are allowed. Users who choose to upload videos, for example, may choose to select videos in their file system using a file browser. Instead of leaving it to the user to select the appropriate video in order for the system to work, the system itself should reject files that are not of certain extensions to prevent type faults. Additionally, users should be warned of such selections through special notifications made by dialog boxes, which demand user attention and user action to clear important messages. Likewise, searching for specific videos, loading selected videos, loading the page, and retrieving data such as time frames should all have error handlers in place to prevent against dangerous conditions from the users. Users should also have the ability to reverse actions within the UI, such as selecting the wrong video to watch, choosing the wrong video to upload into the system, or searching for the wrong term.

Utility:

As a web-application dedicated to providing video searching and uploading functionalities, the QA Classifier will provide the right kinds of tools to perform these tasks. To implement the first out of the two main services of our system, which is video searching, we will include a search bar at the center of our home page. This search bar will allow users to find videos and time frames relevant to the keywords they provide as input. Because it is such a central part of our application, we will be including this feature all throughout our application such that it is made available at the top right corner of each page. Additionally, video time frames associated with certain keywords will be underlined in a familiar hyperlink format under each video returned from the search query to indicate that they are clickable redirects to specific times within the video. This is perhaps the most important feature of our application, as the greatest benefit of using the QA Classifier is having the ability to reduce the amount of time spent searching for spoken topics within educational videos. Familiar icons such as the universal play and pause buttons will be provided for viewing videos. Moreover, an entire page will be dedicated to the process of uploading videos online, and this page may be accessed through a button titled “Upload” at the top right corner of our site. Like the first functionality, because uploading videos is an important aspect of our system, the button redirecting to the upload page will be made available all throughout the application. This page will give users the ability to browse for videos to upload, name the video, categorize the video under an existing course, or create a new course to include for the new video. With these two features, users will have the option to both search and view existing videos and upload new ones as well.

Learnability:

Our target audience is an audience in the education sector, and because of that, we will assume that most users are familiar or comfortable with technology and should therefore be able

to easily navigate through the GUI-based (Graphical User Interface) web application of our system. The icons and bullets in our system are descriptive and explanatory which will put an emphasis on active learning. By clicking on differently labeled icons, the user will be able to easily learn the different functionalities of our GUI. In addition, the implementation of the dialog box for warnings, buttons, such as the upload and load buttons, and finally the loader symbol, to indicate system progress while uploading videos and retrieving queried data will enable our users to learn how to navigate through our web application. We will include the ability for a user to re-select videos, delete sentences or phrases from the search bar, reload a page, or go back to the homepage as a way of undoing mistakes.

Memorability:

Our GUI-based web application is similar to other well known websites such as Youtube and Khan Academy. Therefore, our users will be able to apply the concept of recognition. For instance, clicking on our application logo will redirect the user to the homepage. The application logo will be located at the top center of the GUI page. Additionally, we will include checkboxes to allow users to create new course categories, and the locations of these icons in our interface will be similar to that of Youtube. The simplistic design of our GUI enables the user to not have to remember or memorize additional steps to access certain functionalities. Because videos are our main form of data, we will provide icons such as play and pause icons in our video, search icon to indicate search bar, and folder icon to indicate the option to select files.

Data visualization:

Because the QA Classifier is a web-application, much of our system will contain inherent visual components that interact directly with the users. To best showcase the functionalities of our system, we will be using diagrams and screenshots to show how our system works to our audience. For example, diagrams detailing how the time frames associated with each video will work will be included in our presentations. We will also be providing wireframe diagrams of each page of our application to show the concept of the overall system. Screenshots of the currently developing application may also be useful for data visualization. Furthermore, displaying a diagram or screenshot of the list of videos retrieved after a search has been performed will be key to getting the audience to understand how data is returned to the user within the UI. If possible, a live demonstration of the query and upload process may be useful as well.