

User Scenarios in the Open Video Digital Library Redesign

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Abstract. In this paper we describe a formative usability evaluation iteration of an online video library. We list the scenarios we created, usability problems, prototype mockups, and recommendation for improvement.

Keywords: Open Video Project, digital libraries, user-centered design, user scenarios, persona.

1 Introduction

Online video has erupted in the last two years due to availability of broadband access and more powerful, yet simple, editing tools. Amateurs can now produce as well as consume this type of media, like the well-known YouTube.

Far from entertainment, some institutions have built online video databases with academic purposes. It is the case of Open Video (OV), created in 1997 by the Interaction Design Laboratory at the University of North Carolina at Chapel Hill (<http://www.open-video.org/>). It contains almost 4,000 non-copyrighted video segments that are accessed by more than 40,000 unique visitors each month.

OV aims to capitalize on advances in engineering as well as in library and information science to create and test novel user interfaces for digital video for the research and educational communities [2,3,4,5]. Over the last ten years we have focused on functionalities: we have created slideshows, storyboards, and fast forward surrogates. The growth of functionalities made us to analyze usability in order to be sure that the current design allows users to take advantage of OV. In 2006 we conducted an eye-tracking to know how users interacted with surrogates [7]. Now (2007) we have finished an evaluation of the whole site using the "personas" and scenarios methodology [1,6]. At this paper we present the scenarios we created, usability problems found, prototype mockups, and recommendation for improvement.

2 "Personas" and scenarios

Based upon email inquiries received over the years, the OV team has a general sense about its user community. From this knowledge, we aimed to create "personas" and scenarios that included instructors and students (two well-known user groups) and general users in professional work settings; topical searching as well as known item updating; and different levels of familiarity with the OV system. After discussion, we decided to work on these three "personas":

1. Peter, a Physics professor at UNC who is preparing a class for undergraduate students about the Sun.

2. Paul, an American undergraduate student who must prepare a presentation about the Labor Day History in the United States for the History class.

3. David, a user experience consultant in Netherlands who is looking for some talks about Human-Computer Interaction.

While using the "personas" and scenarios listed we quickly detected major problems in the normal navigational and seeking tasks around the OV website: searching and browsing the collection, browsing the list of results, following the related new and popular videos, and understanding the information about a single video using preview and surrogates.

3 Wireframes

After encountering problems using the "personas" methodology, we created a set of wireframes that try to solve them. The next step will be preparing more functional prototypes and test them with real users.

3.1 Information seeking: Searching and Browsing

In the current interface, a simple search box and a list of facets are showed on the front page. Both searching and browsing the collection gave our scenarios trouble. The search feature did not always work as expected and the advanced search did not provide the level of control our scenarios demanded. Additionally, the ability to browse the collection was hampered by a poor presentation of the available topics, a key part of making a collection inviting for exploration and serendipity.

To improve searching we have proposed to provide advanced search in the same space as the simple search in order to keep the interface simple but improve its power, as well as to change the way that the fields are shown in the advanced search form (figure 1).

To improve browsing we have proposed to provide a generated tag cloud based on the descriptive keywords in the OV metadata also placed on the homepage. Every time a user runs a search query, clicks on a tag, chooses a facet, or visits a recommended video, the tag cloud would change to present related topics to the user.

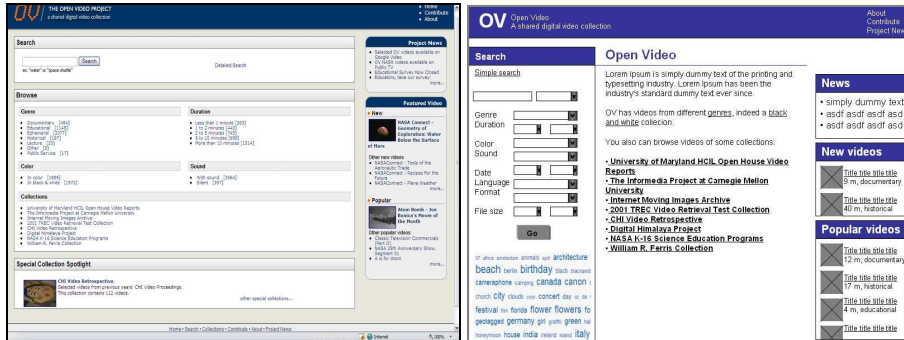


Fig 1. Homepage: current state and wireframe with advanced search extended.

3.2 List of results and recommendations

After conducting a search or clicking on a tag, the user receives a list of video results. In the current version of OV a lot of information appears in the same level of the result set. We propose to reduce the detail, for instance instead of presenting the exact duration of each video (minutes and seconds), put only the minutes; instead of reporting the number of people who have downloaded each video we would draw a popularity bar; and instead of writing the abstract next to each result, preparing a “more” link that open a little window with this information upon explicit request (figure 2).

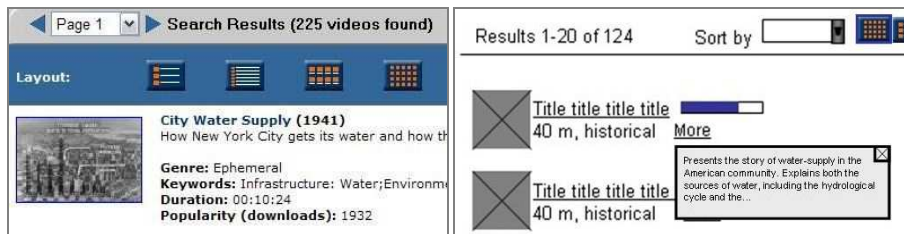


Fig. 2. List of results: current version and wireframe.

We use the term “recommendation” to mean the related videos. We have three methods for making recommendations. From the homepage, a user can see the newest videos and the popular videos. With a list of results from a query we will list the new and popular videos that appear in the result set; and from the details and surrogates of a video we can offer a list of new and popular that are more related with it because they share some tags.

4 Discussion and future work

The "personas" and scenarios methodology, mostly used in the first steps of web design, has been presented as a suitable technique for evaluating interfaces and proposing a redesign. This technique allowed us to focus on the retrieval process and find major problems concerning searching, browsing, checking the list of results, understanding the video details and follow the recommendations or reformulate the search.

The main changes that should be done in the new interface are: a more usable advanced search that can be launched from every single page; a topic tagcloud that allows contextual navigation; a simplification of the data that the list of results offers; and contextual recommendations to follow the search.

The new version of OV will allow us to test some of the interactions we are seeing in the wild. As OV continues to plan for the next version, we hope to continue to provide meaningful objective points of reference in a space that is moving very, very quickly. The functions of search and retrieval will soon be joined by manipulation in these interfaces. How we provide understanding and contextualization will continue to play a key role in the development of this medium.

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