ARTstor Usability Evaluation

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About ARTstor

- 300,000 images of art, architecture, archaeology in charter collection
- Mission: “To enable the use of digital technology to enhance scholarship, teaching and learning in the arts and associated fields.”
- Core audience: scholars, students, educators, libraries, museums

ARTstor is growing all the time as collections are added; 150,000 images at the time of the testing and goal is 500,000 in the coming year.

An example of the use of ARTstor is for faculty to be able to project images using ARTstor during class, and give students access to those images throughout the semester.
ARTstor-JHU Relationship

- JHU was one of 12 beta-test institutions during academic year 2003-2004
- JHU team includes library, slide library, instructional technology staff, and faculty
- ARTstor contracted with JHU for an evaluation from the Library Digital Programs Usability Services during Fall 2003
Scope of usability testing

• Assess ARTstor novice user experience
• Task-based, think-aloud protocol
• Identify recommended changes
• 30 Participants
  – Beta-test institutions
  – Faculty, graduate students, undergraduate students, museum staff
  – Art history and other fields of study
Logistics

- Multiple locations
- Various institutional review board processes
- Confidentiality of participants
- Arrangement of testing rooms
- Participant recruitment and incentives
- Instructions
- Recording test sessions

Johns Hopkins University, James Madison University, Princeton University, Williams College, JHU - local museum staff

IRB: filed with each institutional IRB; each institution had a different process, varying levels of work and approval required.

Confidentiality of participants.

Rooms: PC with Internet access and access to ARTstor, quiet, room for note-taker & facilitator & participant

Recruitment: mass e-mails to students; references from art history librarian, slide librarians, art history contacts

Incentives: $15 Amazon.com gift certificate (the “going rate” for an hour of students’ time has gone from approx. $10 to $20 over the last 5 years.)

Instructions: Think aloud. Can’t answer questions until after the session. Consent form. Test of ARTstor, not of participant.

Recording: Audiotape captures comments. Note-taker also focuses on comments. Use notes as primary source and audiotape as backup. Facilitator takes notes on actions. Haven’t used screen capture software or videotaping because time-consuming, expensive, and don’t necessarily have rights to install software at other institutions.
Test Design

• Task development
  – Basic functionality of ARTstor
  – Scenarios
  – Careful wording
• Timing
  – Allowed 90 minutes for 1-hour session
  – Added tasks when found sessions running 30-40 minutes

Tasks are listed in appendix of our paper.

ARTstor had basic tasks in mind: navigation, searching/browsing, viewing image details and data, comparing 2 images side-by-side, saving groups, viewing groups, registering, using help

Scenarios: E.g., “You are an anthropology professor teaching a course on Native American culture. You use slides in teaching and would like to refer some of your students to ARTstor for independent study after class, so you are seeking images of pottery. You choose to search in the Carnegie collection. Create an image group of Native American Pottery.”

Wording: E.g., “Indian Art” is a category in the Carnegie collection. We asked participants to find “Native American pottery” so as to avoid leading the participants.

Timing: As beta-test institution, we were able to identify some additional tasks to have a full hour-long session.
Qualitative and quantitative data (comments and spreadsheet)

We created an Excel spreadsheet that recorded 1’s and 0’s for “yes” and “no” answers to questions that we asked while looking at how participants completed each task. For example, for the task that asked participants to find images of Native American pottery from the Carnegie collection, we looked at our transcripts to tally how many participants found images of pottery, how many found images of Native American art, and how many found images from the Carnegie collection.

For some tasks, we counted the number of links participants followed, and we calculated the average. For example, for the first task, we counted how many links participants clicked on before they clicked on the “Enter the Library” link.

We also tallied participants’ success in using features that were not specifically dealt with in the tasks, but that some participants happened to use in the course of the session. For example, we counted how many participants tried the List Images and Sort features, how many participants discovered that the ARTstor logo is a link to the library homepage, and, of those who tried, how many were successful in deleting an image from an image group that they had created.
Results: a few examples

- ARTstor Homepage
- Library Homepage
- Thumbnail Page (search results)
- Advanced Search
- Help

We have selected 5 different pages from ARTstor to show before and after screenshots to illustrate some of the challenges that participants encountered during the sessions and how some of the changes that we recommended have been implemented.
ARTstor Homepage

• We found that many participants had a hard time navigating to where they could search for images.
Many users went to “Collections” link, thinking they could search the database there. The “Enter the Library” link, which is the entry point to searching and browsing for images, was cited as not prominent enough on the page.
On the revised homepage, “Search and Browse for Images” replaces the link “Enter the Library.”

In addition, “Search and Browse for Images” links have been added in many places on the ARTstor web site. Thus, even if users miss the “Search and Browse for Images” link on the ARTstor homepage and select the “Collections” link, they will find links to searching and browsing next to and below all of the collection descriptions.
Library Homepage

- A few minor changes were made to the arrangement of collections and the items on the navigation bar.
- Many users were asked to find an image of a teapot as their first search task.
- This is where users wanted to return to initiate a new search.
Grayed out “My Image Groups” - good because not logged in yet and can’t use it until logged in

“Utilities” changed to “Tools”

Added “Back” link will help users access prior searches

Added “Exit” link

“General Collection” and “Specialized Collections” are clearer categories of collections than geographic categories (more in line with academic coursework - e.g. General Collection for survey courses)
Thumbnail Page

• Navigation bar changes
  – Back button on bar instead of hidden under “Go To” button
  – Home button
  – Removed inactive Save button
• Search could be changed to another collection with added drop-down list of collections
Navigation bar changes

Back link on navigation bar instead of hidden under “Go To” link
Home link should be more obvious than ARTstor logo as a way to return to Library Homepage
Inactive Save button has been removed; participants thought they could save groups or download images using “Save,” but they could not.

Search could be changed to another collection with added drop-down list of collections, giving the thumbnail page the full functionality of the Library Homepage.
Advanced Search

- Combination text box/drop-down list of prior search terms confused users who thought they need to limit their search terms to the items on the list.
- Type of search is not prompted, which allows greater perceived freedom in search.
- Filtered Search button changed to Search.
This is the original advanced search dialog box. Note the filtered search button. This was a source of confusion to participants because they didn’t necessarily know it would initiate the search. Note also the many field options. Some participants thought that they had to fill in as many fields as possible, which led them to perhaps too narrowly limit their search. Most critically, the combination text box/dropdown menus which listed previous search terms, not necessarily those of the current user, proved rather confusing. Participants did not realize that they could type in new terms.
In the new advanced search dialog box, the search button is just ‘search’ not ‘filtered search.’

The type of search is not prompted, which allows greater perceived freedom in search to users.

The combination text box/dropdown menus are gone, along with previous search terms, leaving only text boxes for users to enter their own search terms.

The And/Or/Not dropdown menus are new, enabling users to include and exclude terms.
• Task asked participants to print a help page about truncating a search term.
• Print button added to top navigation.
• Many additional questions and answers added.
Troubleshooting

The Image Viewer does not open when I double-click a thumbnail.
My Personal Folder is not appearing in the Open Image Group page.
I cannot drag and drop to sort thumbnails.
Print button added to top navigation.

Many additional questions and answers added. While some of these can be attributed to the usability evaluation, many were added as ARTstor received feedback from beta-test institutions, and, since ARTstor’s launch this past summer, ARTstor subscribers.
For more results...

• This is a small subset of the recommendations we made to ARTstor based on these task-based tests. Our paper describes the others.
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