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Academy of Art University Library Application

An optimized site for mobile devices

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I. Introduction

With the growing number of distance learning and online education courses, there is a greater need for learning institutions, such as the Academy of Art University [http://www.academyart.edu], to provide necessary resources for students that use Internet-based classrooms. A library is one such resource that has traditionally been an invaluable tool for on-campus students—giving them access to large collections of books and the latest periodicals. Currently, AAU does not offer a similar tool that is optimized for its online students.

With that in mind, the primary focus of this project is to create a mobile application that would utilize and streamline the AAU Library Site's most valuable resources—especially its search functionality—and target the institution's online students, who currently do not have access to a similar tool.

This report summarizes research, task flows and testing results produced throughout the development of the prototype of this application.

II. Requirements Analysis

Target Audience
Our core group of users is AAU students who frequently use mobile applications, with a primary goal of accessing the school's library through a mobile device—without the hassle and complications of dealing with excess information. These users visit the library site with the intent of locating books or research material for required coursework.

Due to the nature of online education students, many are working professionals continuing his or her education. Many hold at least a bachelor's degree, are enrolled at least part-time in a master's degree program, and are relatively tech savvy. They are an educated and diverse demographic: both male and female, at least 21 years or older, living internationally and throughout the United States.

With this core demographic in mind, our intended design will eliminate the unnecessary information found on the library website by simplifying the organizational layout and structure of its resources, while catering to the student on the go. The final design will allow users access to research material through an uncluttered user interface, and this cleaner design will thus enable users to decrease the amount of time needed to find desired information.

User Goals & Needs
The goal of the user is to access AAU's library content from their mobile device. They want the same information that is being provided to on-campus students, including access to their current course textbooks.

To accomplish this task from a mobile device, users need an effective search parameter that does not require a lot of data entry or clicking. They need a clean

design that makes it easier and more effective to access the data they are seeking.

The unique selling proposition of AAU's mobile site for online students is that it will have more information available in the palm of their hand.

Target Platform
The final design of this application will be compatible across all mobile device platforms, supporting iOS, Android, and the most-up-date Blackberry smartphones and tablets.

Application Objectives
The primary objective of this web application is to provide a convenient source for searchable library data that students can access from their mobile device anytime and anywhere. Additionally, this application will provide content that does not increase data charges because of long download times and hi-resolution images.

Usability Objective
The goal of the project is to present an efficient method of obtaining reading materials from the school's physical library system on mobile devices. Since the targeted audience of this application views content on smaller screens, the way information is presented will be paramount to the usability of the resource, along with the following objectives:

- Maximize speed of access to the library's resources available online.
- Present an accurate and complete inventory in search results.
- Produce effective online Contact and Help Documentation.

The goal is that 80-90% of users will be able to complete a search with appropriate results to their query within 5 minutes, with a maximum of two instances of assistance, and less than two errors. (A search error is defined as a search that produces too many options, in which the results are not narrow enough to be usable.)

III. Summary Design Specification

Functional Description
As stated previously, this application focuses on searching/results and quick communications. There will be methods to filter searches and organize results based on user preferences, which will be accessed through AAU's login system that is already in place. There will also be functionalities that will include one-touch contacting via email and phone icons.

Site Information Architecture
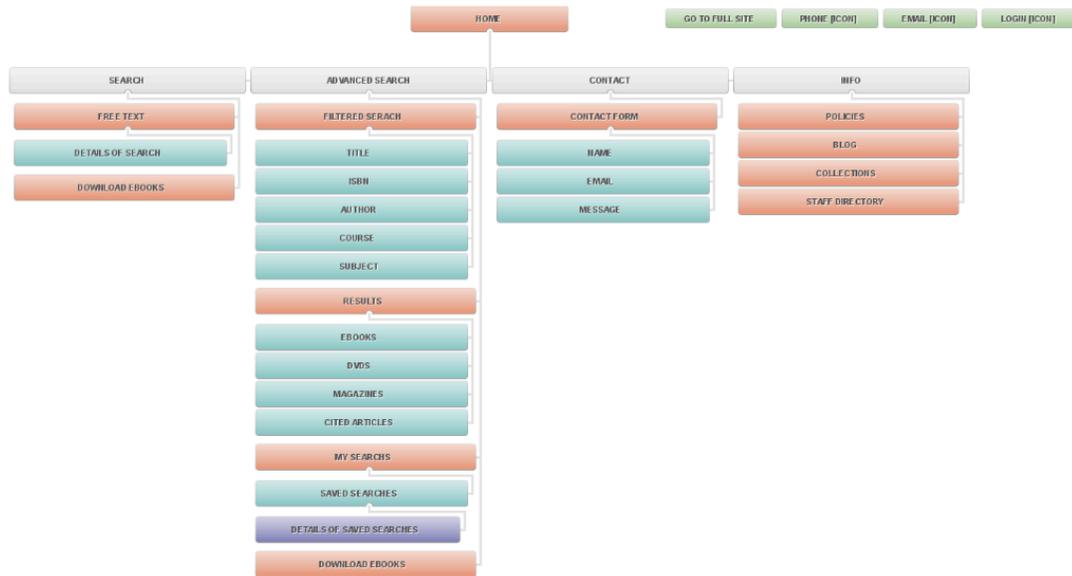
Task Flow: Search
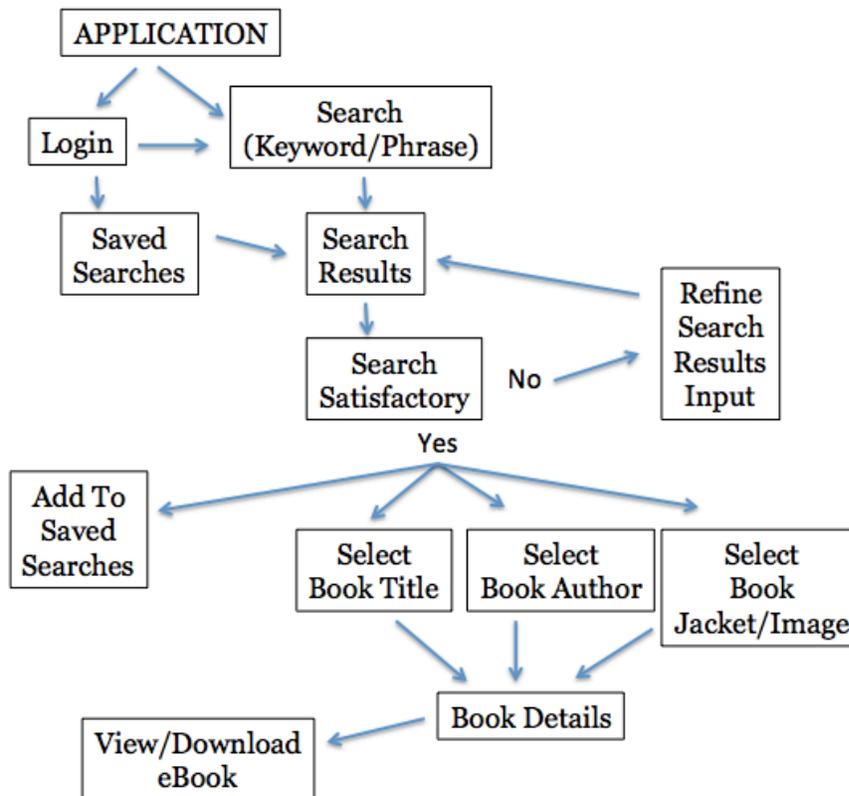
Use Case/Task Analysis: Brandt Swanson
Age: 36
Location: Southeastern, MA
Education: BS Computer Science
Occupation: IT Project Manager

Brandt suffers from the most common form of color blindness, distinguishing red and green colors. His screens display colors by combining different wavelengths of the color spectrum, which causes difficulty when reading. Taking this into consideration, this application utilizes a color scheme of black and shades of grey that would not interfere with Brandt's ability to use the mobile website.

Task: Brandt does not know the book title or how the book looks, but he does know the author's last name and the course title. He wants to use the advanced search function to search for required course material that was not in the list of collections.

Steps

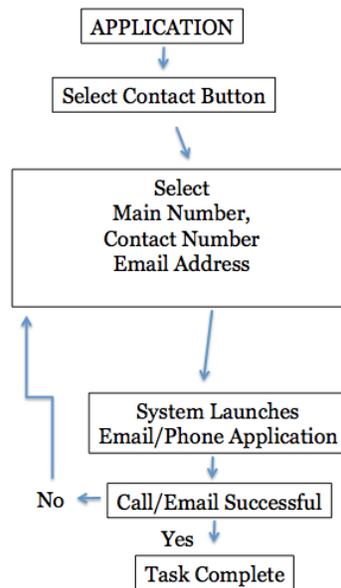1. Brandt launches the AAU Library Application.
2. He selects the filtered search option on the site's homepage.
3. The application displays options for him to narrow his search by ISBN, Subject, or Author.
4. Brandt types in the author's last name and his course number.
5. The Application displays search results in multiple view options.
6. Brandt selects the required course material.

Homepage Design

Task Flow: Contact

```
                    ┌──────────────┐
                    │ APPLICATION  │
                    └──────────────┘
                            │
                            ▼
                 ┌─────────────────────┐
                 │ Select Contact Button│
                 └─────────────────────┘
                            │
                            ▼
          ┌──────────────────────────────┐
          │            Select            │
          │        Main Number,          │
          │       Contact Number         │
          │        Email Address         │
          └──────────────────────────────┘
                            │
                            ▼
                 ┌──────────────────────┐
                 │   System Launches    │
                 │ Email/Phone Application│
                 └──────────────────────┘
                            │
                            ▼
       No ◄── ┌──────────────────────┐
              │ Call/Email Successful │
              └──────────────────────┘
                     Yes │
                         ▼
                 ┌──────────────┐
                 │ Task Complete │
                 └──────────────┘
```

Use Case/Task Analysis: Eric Kanner
Age: 26
Location: New York, NY
Education: BA Communications
Occupation: Digital Marketing Coordinator

Eric has a case of myopia, people who cannot see far away and are nearsighted. With this application being on mobile devices, this should not be a major concern with his disability. But as a precaution, this application avoids serif fonts, small text, and sub notes, so that all information can be seen clearly and precisely.

Task: Eric left his tablet at home by mistake and all he has is his phone. Eric is searching for a class video for module 9 for one of his courses, but he can't seem to understand the video title. Eric wants to contact a librarian to get the catalog number for the video.

Steps

1. Eric launches the AAU Library Application.
2. He selects the contact button found on the site's homepage.
3. Eric now has a couple options to contact a librarian: selecting the main library number or email, or by finding a relevant staff member's phone number or email address.
4. He selects the main number.
5. The application sends a task to the phone to dial the number.
6. Eric confirms the request.
7. The phone now takes over the device and connects Eric with a contact.

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Contact Page Design
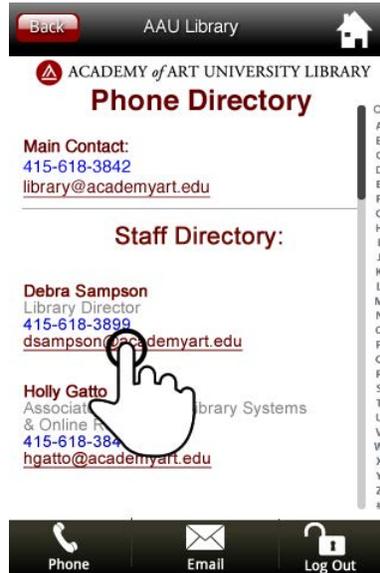
IV. Test Results

Feedback Summary/Updates & Modifications
Based on feedback from test users, many of the issues found within the prototype dealt with logging in and signing out. To correct this problem, we made it clearer that searching can be done without first logging in. However, we also made it clear that downloading and viewing eBooks is necessary. It's an essential element and legal condition needed to safeguard the institution against copyright and piracy issues.

Much of the confusion with the login stems from the limitations of the interactive pdf and the processes that can be simulated. If a facilitator were present, the test user would have been notified of the difference: logged in versus logged out paths. However, the interactive pdf has been modified, updating the workflow to better simulate the experience, especially the back button. This functionality now meets user expectations.

In addition, changes have been made in the language, as an extra indicator identifying the status of the user. Text has also been simplified, per comments from test users, to eliminate jargon in the login overlay.

Design modifications include moving the navigational bar that switches views between list, coverflow, and image to below search results, prioritizing the elements based on hierarchy. And extra pages were added that confirms certain tasks were completed.

Prototype
An updated interactive pdf, which simulates a prototype of this application, is included in the deliverables. Click on buttons to navigate through the processes in action. Pages are not in order, so viewing the pdf as if it were on a mobile device is vital to understanding the workflow.

V. Conclusion
Through research on The Academy of Art University's online students, our analysis finds that there is a need to optimize the school's library site for mobile browsers. The target audience is specific and addresses the need for more information in less time as their primary goal when accessing the site.

With these core concerns in mind, backed up by user scenarios, surveys and a competitive analysis of similar applications, the final design and application prototype and platform eliminates the requirement for download. Functionalities are available through mobile browsing, which in turn allows accessibility to a greater number within the target audience.

The site's most prominent resources are now available in a simple to use interface. Once the final product is completed, the application could serve as a feature to attract prospective students. It could also serve as an indication that the University is staying ahead of the technological curve by providing its students with necessary tools to succeed in their higher learning, specifically for their online courses.