

Mosaic Redesign: Project Proposal

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ABSTRACT

A project proposal for a redesign for Mosaic is presented here. The proposed project as well as suggested improvements are first explained. Five Canadian university course management software surveys are then presented. Each survey has a quick description followed by a critique of the major usability flaws and strengths. After that two of the most important features of each software will be further analyzed via hierarchical task analyses.

AUTHOR KEYWORDS

Course management system, Usability, Visibility, Dynamic element, Mosaic, Solar, Webadvisor

ACM CLASSIFICATION KEYWORDS

Computer-Human Interaction, Computer Graphics and Interactive Techniques, Management Information Systems, University and College Computing Services, Hypertext and the Web

PROJECT PROPOSAL

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Overview

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Suggested Improvements

Our suggested improvement is to have a dynamic element near the top of the home page which will provide useful information and links to pages of importance relative to the date.

For example, when close to exam season the element will display the students exam time table. During the

course registration time frame the element will display information about course registration.

The items that are displayed on the dynamic element will also have permanent links on the page for users who wish to access those pages when they are not on display.

This dynamic element will help users find the information they are most likely looking for by making information more visible and easier to access.

We are also proposing to have a better, more logical layout for the system. Currently the pages with information on courses have a section for personal information. This section should instead be moved to the "My Profile" section as it would make more sense to be located there. By moving sections that do not make logical sense to sections where they do make sense we will have cleared page space thus allowing us to increase the size of what is left on the page so it is easier for the user to find what they are looking for as well as giving us a spot to implement our dynamic element.

SOFTWARE SURVEY

Five course management systems from Canadian universities have been selected for review (including Mosaic). For each system, a brief description will be followed by a critique of the major usability flaws and strengths. From this, the main goals and tasks of users using the systems will be extracted. Finally, the two most important of those features will be further analyzed via hierarchical task analyses. Screenshots will be presented throughout each software review.

McMaster University (current) – Mosaic

The screenshot shows the Mosaic system interface for a student named Stuart Douglas. The top navigation bar includes links for Home, Documentation, My Profile, My Work, Student Center, Student Guide, and Support. The main content area is titled 'Add Classes' and includes a search bar, a 'Plan' button, and a 'My Academics' button. Below this, there is a section for '1. Select classes to add' with instructions to select classes for another term. A '2016 Winter' section is visible, showing a list of classes with columns for 'Open', 'Closed', and 'Wait List'. A 'Shopping Cart' section is also present, showing a list of classes added to the cart.

Figure 1: Selecting courses to enroll in – Mosaic

Description

The purpose of the software is to allow students to manage their courses (enrolling, dropping etc.), and view information about their current status (current timetable, enrollment status, financial balance etc.). The interface for the software consists of several distinct modules encapsulating different aspects of the software. These include Academics, Finances, Personal Information, and Admissions. The focus of this analysis is on two common tasks – enrolling in courses and viewing one's course schedule.

Critique

The largest usability flaws in Mosaic center around difficulty to access required information. Combined with an unintuitive and inconsistent navigation interface, the software is not very usable. The HTA for enrolling in a course demonstrates this through the large number of steps required to perform a routine and common task. Other functions are hidden behind dropdown menus, and are difficult to discover.

The navigation is separated into a top navigation bar separated by user-type (e.g. Students and Employees). Within the student center page, functions are separated into modules, an effective strategy to group related functions. Navigating to one of the sub-functions (such as enrolling in a course) presents secondary and tertiary menus below the main one. Navigation within one of these is handled by blue text hyperlinks back to previous pages. Native back and forward browser functionality does not work. There is little visual indication of where the user is beyond the navigation bars at the top, which do not go to a depth sufficient to cover all pages used when performing common actions, such as enrolling in a course.

McMaster University (pre 2015) – Solar Description

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Critique

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Guelph University – WebAdvisor

The screenshot shows the WebAdvisor system interface for course registration. The top navigation bar includes links for Home, My Profile, My Work, Student Center, Student Guide, and Support. The main content area is titled 'Preferred Sections' and includes a table with columns for Action, Term, Section Name and Title, Location, Meeting Information, Faculty, and Available Capacity. The table lists several sections, including 'Leadership & Early Childhood', 'Computer Security', 'Recreation & Tourism Planning', and 'Mgmt 3600 DE'. Below the table, there is a 'Current Registrations' section with a table showing the status of current registrations. A 'SUBMIT' button is located at the bottom right of the page.

Figure 2: Registering for preferred courses – WebAdvisor

Description

Guelph's

Critique

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Carleton University – ??

Description

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Critique

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Waterloo University – ??

Description

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Critique

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CONCLUSION

We have discussed our proposed improvements to a course management system like mosaic. We also provided a software survey for five Canadian university

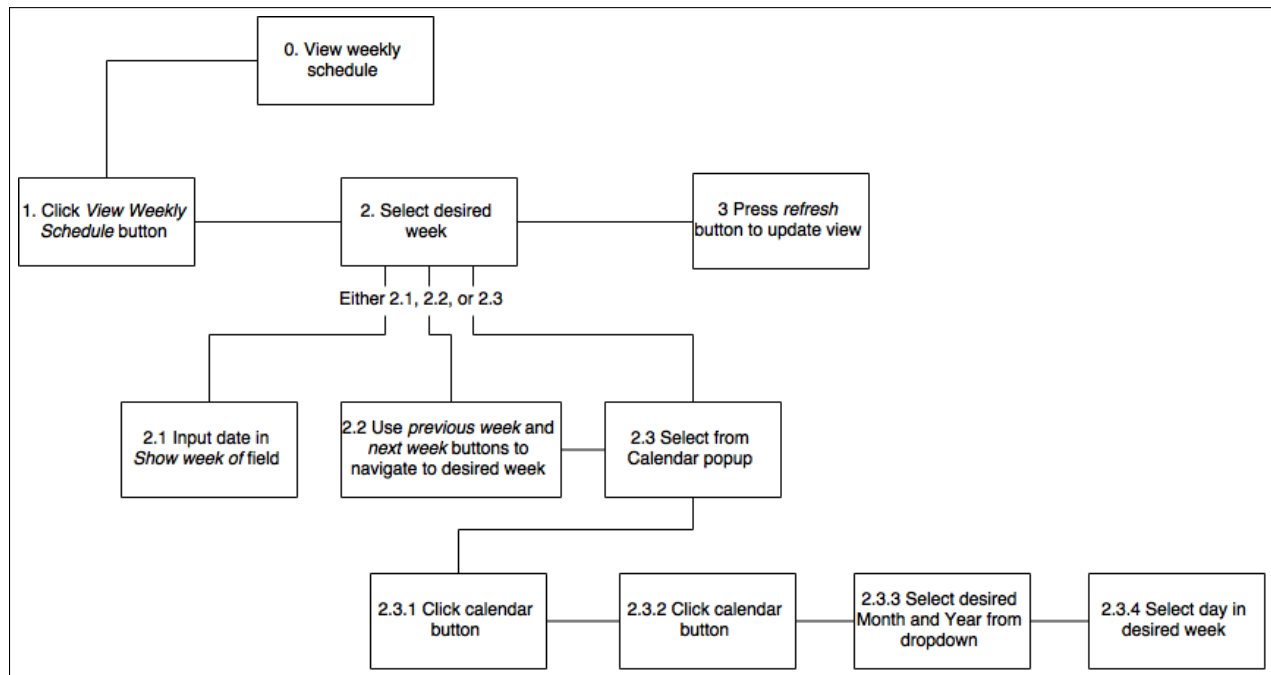
course management systems. For each survey we critiqued the software as well as analyzed the two most important features via hierarchical task analysis.

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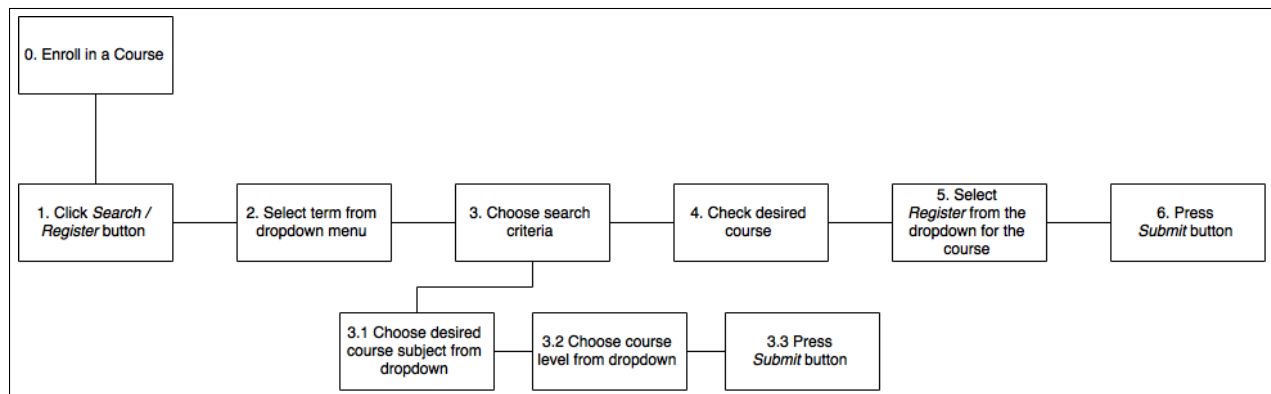
graph LR
    0[0. Enroll in Course] --> 1[1. Click enroll in the Academics section]
    1 --> 2[2. Select term]
    2 --> 2_1[2.1 Choose desired term from radio button]
    2 --> 2_2[2.2 Click continue]
    2_1 --> 3[3. Select course]
    2_2 --> 3
    3 --> 3_1[3.1 Manually enter course number]
    3 --> 3_2[3.2 Select Class Search]
    3 --> 3_3[3.3 Select My Requirements]
    3 --> 3_4[3.4 Select My Planner]
    3_1 --> 3_1_1[3.1.1 Enter course number in Class Nbr field]
    3_1 --> 3_1_2[3.1.2 Click find button]
    3_1_1 --> 3_1_2
    3_1_2 --> 3_x_1[3.x.1 Click search button]
    3_2 --> 3_x_1
    3_3 --> 3_x_1
    3_4 --> 3_x_2[3.x.2 Click select button for desired course]
    3_x_1 --> 3_2_1[3.2.1 Enter search criteria]
    3_x_1 --> 3_x_2
    3_2_1 --> 3_x_2
    3_x_2 --> 4[4. Select Lecture and tutorial timeslot]
    3_4 --> 4_1[4.1 Click select button on desired lecture time]
    3_4 --> 4_2[4.2 Click select button on desired tutorial time (if applicable)]
    3_4 --> 4_3[4.3 Click select button on desired lab time (if applicable)]
    4_1 --> 4_2
    4_2 --> 4_3
    4_3 --> 5[5. Click next button]
    5 --> 6[6. Click Proceed to Step 2 of 3 button]
    6 --> 7_1[7.1 Confirm courses to add]
    7_1 --> 7_2[7.2 Click Confirm Enrollment button]

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HTA - MOSAIC, VIEWING WEEKLY SCHEDULE



HTA - WEBADVISOR, ENROLLING IN A COURSE



HTA - WEBADVISOR, VIEWING WEEKLY SCHEDULE

