

Project Phase 2

Mobile D2L System

CS 747: Human Computer Interaction

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Overview

The purpose of this design project is to develop a more usable interface for a university's mobile D2L (Desire 2 Learn) site. In our previous phase, we researched the current system, through listing the current user types and tasks, interviewing and studying current users, and then developing a list of requirements for an improved system. In this phase of the project, we have enumerated the most important user tasks and their respective use cases. We will then present the design changes we have made to improve the mobile D2L system, and will also describe the design principles and guidelines we used and how they impacted the usability of the application. It is also important to note that for this phase of the project, we have focused on the aspects of the system we are redesigning (through usability enhancements or new features). Existing features that did not require modifications or enhancements (as based on the user feedback we received in Phase 1), will remain as they are in the current system.

Concrete Use Cases

Below are the concrete use cases for the aspects of the system we are redesigning. These highlight the objects, attributes, and actions of the mobile D2L that we will be changing.

- Need at least 5, but need to include every aspect we are redesigning
- Include markup per fig. 8.8 and 8.9

What we are redesigning:

- General navigation (course list on main page)
- Course features list (change tools menu)
- News feature - pull in news from content, grades, discussions, dropbox (for professors?)
- Dropbox (adding)
- Classlist w/ email (adding)

Task objects are underlined, attributes of task objects are *italicized*.

Concrete Use Case - View system news

User Action	System Response
<u>Student</u> logs in to D2L page.	System verifies user's identity. System displays D2L home page.
Student observes system <u>news feed</u> , scrolling down as necessary.	System displays a list of recent <i>news items</i> for all <u>courses</u> the student is enrolled in, such as <u>announcements</u> , recently posted <u>content</u> , recent <u>discussion messages</u> , and recently posted <u>grades</u> .

Concrete Use Case - View course news

User Action	System Response
<u>Student</u> logs in to D2L	System verifies user's identity.

page.	System displays D2L home page. System displays list of user's <u>courses</u> .
Student selects desired course from list.	System displays course home page.
Student observes course <u>news feed</u> , scrolling down as necessary.	System displays a list of recent <i>news items</i> for the course, such as <u>announcements</u> , recently posted <u>content</u> , recent <u>discussion messages</u> , and recently posted <u>grades</u> .

Concrete Use Case - Delete Discussion Post

User Action	System Response
Student logs into D2L page.	System verifies user's identity. System displays D2L home page. System displays list of user's courses.
Student selects desired course from list.	System displays course home page.
Student selects the discussion board from the course home page.	System displays the current discussion posts.
Student selects the discussion thread they want to alter.	System displays all of the posts in the discussion thread.
Student selects the trash icon to remove a post they own.	System prompts user to confirm the deletion action.
Student confirms the deletion of the post.	System removes post and reloads the discussion thread.

Concrete Use Case - View class list

User Action	System Response
<u>Student</u> logs in to D2L page.	System verifies user's identity. System displays D2L home page.
Student selects desired <u>course</u> from list of courses.	System displays selected course home page.
Student selects <u>Classlist</u> option.	System displays the page with <u>Students</u> tab active and the students listed.

	System displays inactive <u>Staff</u> tab and inactive <u>All</u> tab.
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Concrete Use Case - Send Email to student class member

User Action	System Response
<u>Student</u> logs in to D2L page.	System verifies user's identity. System displays D2L home page.
Student selects <u>course recipient</u> is enrolled in from list of courses.	System displays selected course home page.
Student selects <u>Classlist</u> option.	System displays the page with <u>Students</u> tab active and the students listed. System displays inactive <u>Staff</u> tab and inactive <u>All</u> tab.
Student scrolls to desired recipient and taps on their <u>name</u> .	System opens new <u>email form</u> in D2L Email client. System enters selected recipient's <u>email address</u> in <u>To:</u> field of the form. System displays buttons labeled <u>Address Book</u> and <u>Send</u> on the form.
Student types subject in <u>Subject field</u> on form.	System displays typed content.
Student types message in <u>Message field</u> on form.	System displays typed content.
Student taps Send button.	System sends Email. System displays Classlist page.

Concrete Use Case - Send Email

User Action	System Response
<u>Student</u> logs in to D2L page.	System verifies user's identity. System displays D2L home page.
Student selects a <u>course</u> from list of courses.	System displays selected course home page.

Student selects <u>Email</u> option.	System opens new email form in D2L Email client. System displays buttons labeled <u>Address Book</u> and <u>Send</u> on the form.
Student taps Address Book button.	System displays selected <u>class list</u> . System displays pull-down <u>option list</u> .
Student taps pull-down option list.	System displays list of options: student's <u>class names</u> , <u>All System Contacts</u> , <u>All Personal Contacts</u> .
Student taps All Personal Contacts option.	System displays the student's personal contacts.
Student scrolls to desired <u>recipient</u> and taps <u>name</u> .	System displays email form with recipient's <u>email address</u> filled in.
Student types subject in <u>Subject field</u> on form.	System displays typed content.
Student types message in <u>Message field</u> on form.	System displays typed content.
Student taps Send button.	System sends Email. System displays Confirmation page.

Concrete Use Case – Submit file to dropbox

User Action	System Response
<u>Student</u> logs in to D2L page.	System verifies user's identity. System displays D2L home page. System displays list of user's <u>courses</u> .
Student selects desired <u>course</u> from list.	System displays course home page.
Student selects <u>Dropbox</u> option	System displays Dropbox Folders page.
Student selects desired dropbox <u>folder</u>	System displays Submit Files page.
Student taps <u>Add a File</u> <i>button</i>	System prompts user to browse for file to upload
Student selects <u>file</u> to upload	System prompts user to confirm selection

Student confirms selection	System submits selected file to dropbox. System displays Dropbox submission confirmation System emails user a dropbox submission confirmation
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Object-Attribute-Action Tables

The Object-Attribute-Action tables below provide a structured way of viewing the details of the task objects that we are redesigning. They highlight the properties of the objects the users will interact with, and what the users can do with those objects.

Cover the primary task objects

Task Object	Attributes	Actions
Student	Name Email address	
Professor	Name Email address	
Course	Name Number Section Content Discussions Dropbox News feed Class list	View
Content	File name Show date Expiration date	Upload Open Save

		Delete
Discussion	Topic name Messages Post	Create topic Create message Reply to message Delete message
Grade	Grade name Score	View Add comment
Dropbox	Dropbox name Expiration date	Submit Save
News feed	News item	View
Class list	Students Professors	View Send email

Most Important Tasks

The tasks below represent the most frequently used or highest-value tasks for the mobile D2L system. Based on feedback from interviews and field studies with users, we have presented improved workflows for four of the tasks below.

(Need top 10, then need to illustrate the improved flow of work for at least 3 of these top tasks)

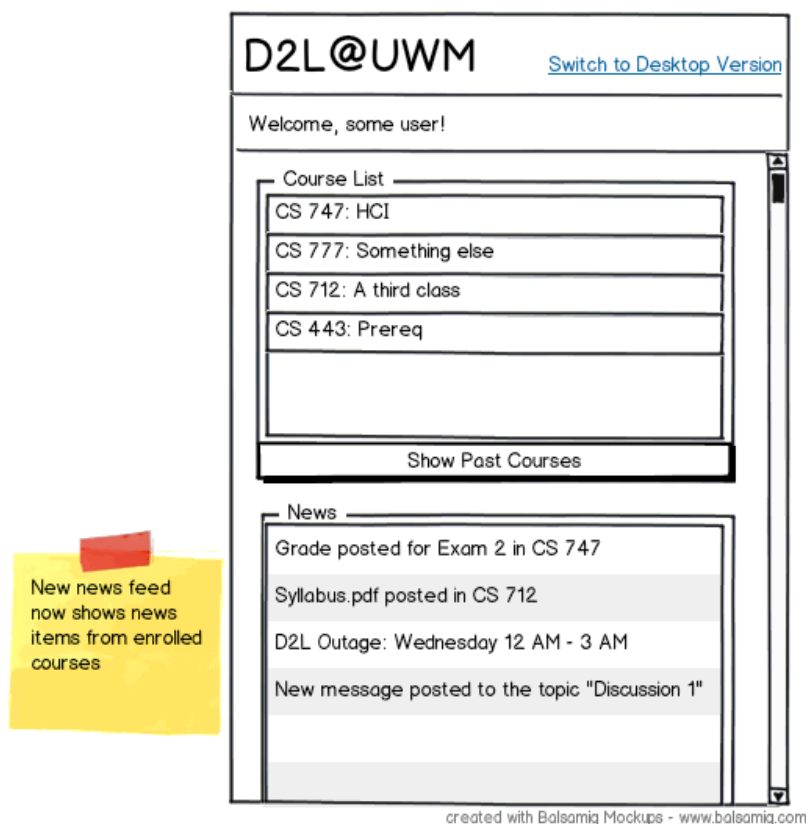
1. Access course content
2. View course grades
3. Email members of classlist
4. Submit assignment to dropbox
5. View course news
6. Contact course members using classlist
7. Post a discussion message
8. Respond to a discussion message
9. Bookmark course content
10. Logout

Redesigned Tasks

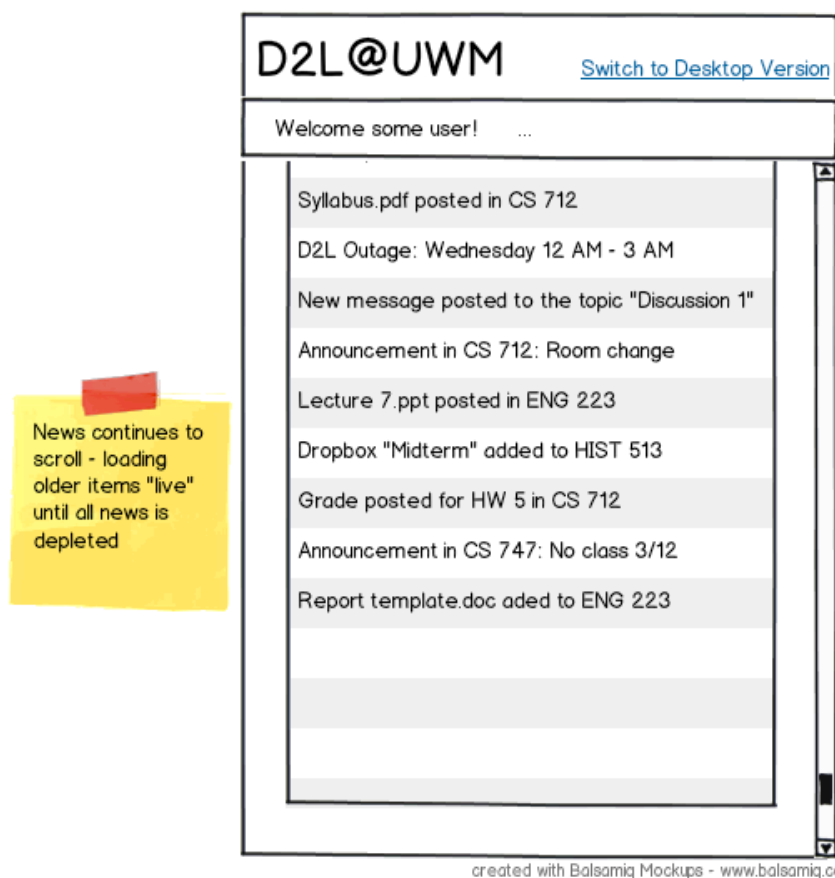
Redesigned Task - View system news

This task involves a student logging in to D2L mobile, and then viewing the system news feed on the home page. We have improved this feature by adding news items from all of the students courses to the news feed, which previously only showed announcements from D2L administrators.

We begin with the new home page, shown after the user logs in. The new system news feed can be found below the class list.



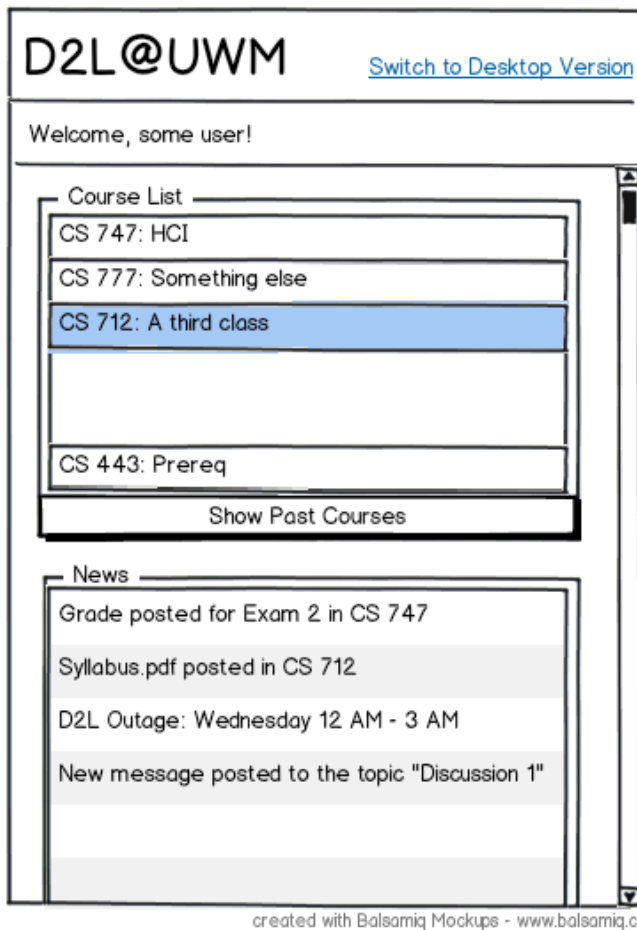
As the user scrolls down, more news is dynamically loaded until no news remains. This helps address possible bandwidth issues by only loading more news on demand.



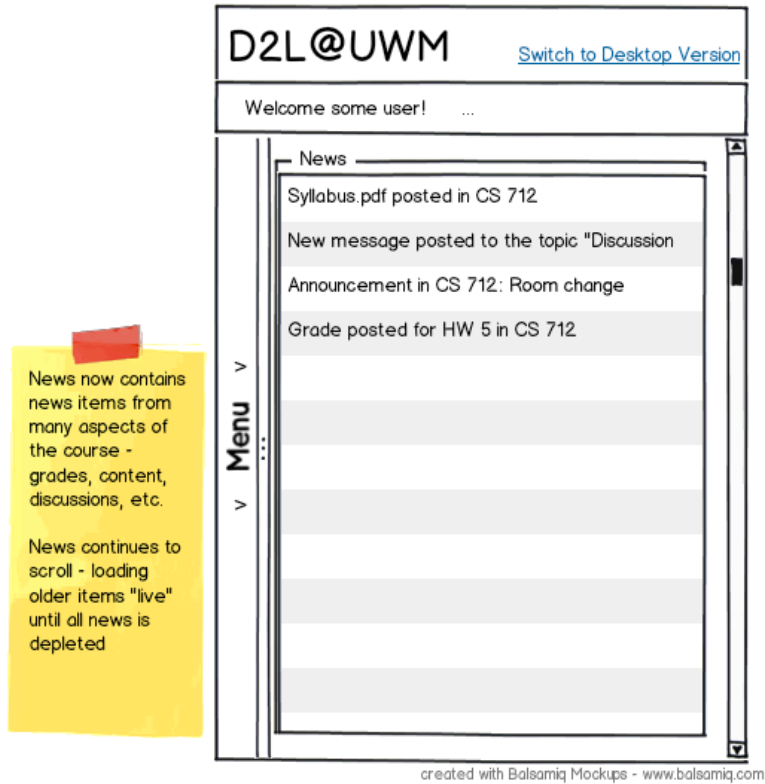
Redesigned Task - View course news

This task involves a student logging in to D2L mobile, selecting a course from the home page, and then viewing the course news feed on the course's home page. We have improved this feature by adding news items from all of the course features (content, discussions, grades, etc.) to the news feed, which previously only showed announcements from the professor.

To start this workflow, the user selects a course from the home page, as shown below.

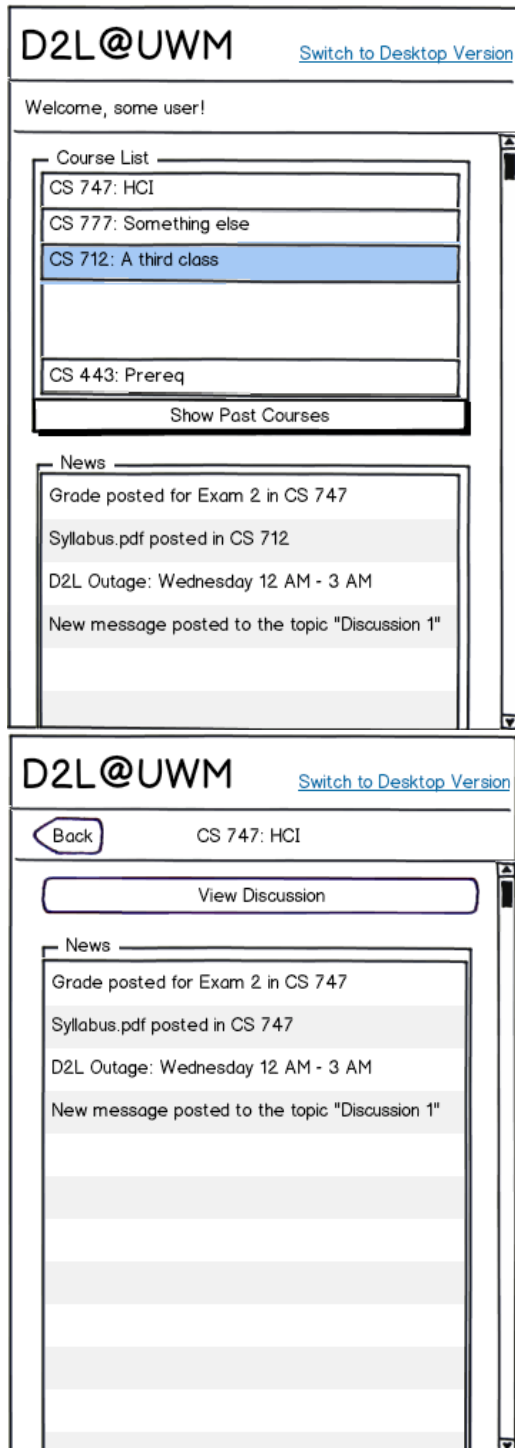


The system then displays course's home page, complete with the course news feed. As with the system news feed, as the user scrolls down, more news is dynamically loaded until no news remains.



Redesigned Task - Delete Discussion Post

This task involves the student wanting to remove a discussion post for some reason or another. We can do this by locating the post the user wants to remove and selecting the trash icon. This task is something that we would add to the system because as of right now there is no option to do this.



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HCI

Discussions

Discussion 1

Discussion 2

Discussion 3

Discussion 4

Discussion 5

Discussion 6

Discussion 7

Discussion 8

D2L@UWM

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Discussions

Discussion 1

User 1

Could anyone tell me what will be covered on the first exam?

Me

I would also like to know.

