Lab 1: Moodle Project

Objectives

1. Get to know your group members
2. Get to know Moodle
3. Select which Moodle module you will study for this project
4. Develop a project plan for the rest of the term

Introduction and background

A more in-depth introduction to Moodle

By now, you've used Moodle, Carleton's course management system, extensively in the two dyad courses, and possibly in your third course as well. You've also had the opportunity to evaluate the design and functionality of Moodle, through your eyes and through a professor's eyes. In today's class, you will have the opportunity to explore Moodle in more depth, including from the view of a professor.

Carly Born, one of Carleton's Academic Technologists, will walk you through some of the more technical aspects of Moodle, as well as some of its development history and some examples of how professors in different departments use Moodle. For the rest of the lab, you will be familiarizing yourself with the abilities and limitations of the site, and will come up with a way to evaluate its usability.

Because Moodle is a complicated system, we are narrowing the focus of this project to five particular functions ("modules") in Moodle:

- Assignment
- Grading
- Signup
- Quiz
- Forum

Unlike the Carlpedia project, in which there was some overlap in research questions, in this project each group will concentrate on a **different** module. Each of the modules listed above, then, will be studied by one of the project groups.

Your tasks

Getting to know your project groups

The group assignments for this project:
[redacted]

Your first task as a project group is to come up with a better name for your group, so that we don't have to refer to you as "Group 1", etc. for the remainder of the term.

Selecting a module

Before the groups select a module, take some time as a group to familiarize yourself with each module. Carly has set up "sandboxes" on Moodle so that you can play around with the different module options. For example, you can create forums and assignments, view the gradebook and create grade categories, set up signup sheets, etc. Take some time to explore each module.

Here are some questions you might want to consider when exploring the modules:

1. How usable/intuitive is this module?
2. What tasks related to this module are easy/obvious to perform?
3. What tasks related to this module are difficult to perform?
4. For the difficult-to-perform tasks, how much of this is related to the structure of the content and how much is related to the content itself?
5. What are some of the critical subcomponents of the tasks you identified for this module?
6. How could the readings from this week, especially today's reading, inform your analysis of this module?
7. Pick 2 questions of interest. What kinds of methods could be used to investigate these questions?

Once you've had the opportunity to explore, we will have each group select a module to study. We will have the groups select a module in random order.

Project planning

One of the key differences between this project and the Carlpedia project is that this project is much more open-ended. Unlike the Carlpedia labs, which were fairly structured, the Moodle labs will be unstructured. In each lab, Mija and I will consult with each group for 20-30 minutes, but the rest of the time is yours to spend as you see fit as a group. This means that you, and your group, will be responsible for partitioning and planning your time.

We will spend some time in lab today brainstorming best practices for working effectively in groups and managing group project time. These ideas will be your main guidelines moving forward.

Homework

Your assignment for next Wednesday is to come up with a project plan. The project plan should include the following:

- What module you are studying
- What questions you aim to answer about the module
- A timeline of "deliverables": specific tasks, analyses, mockups, etc. that you will complete by specific dates. (You may want to have some of these items due by next Friday!)
- The anticipated role each team member will play in the project

Below, Mija and Amy have listed our expectations for the end product of this project. You should work backwards from these when outlining your project plan.

Please turn in a PDF document containing your project plan on Mija's Moodle page. Both Mija and Amy will review the document and provide you with feedback during next week's lab. The project plan is due before the start of the lab period on October 28.

Psychology project expectations

By the end of the term, I expect an APA style paper, much like the paper you submitted on Carlpedia.

- The paper introduction should include both primary and secondary source references. You can refer to our old friends Krug, Norman, and Nielsen, but you also should find some primary source articles that support your hypothesis and inform your proposed answer to your research question. I expect between 3-5 primary sources in your paper, but you are free to include more, if they are relevant and contribute to your argument.
- Your method should outline an empirical study that you have completed.
    - **You must have a completed method section submitted and approved by Mija before collecting any data!**
    - Your hypothesis, independent, and dependent variables should be clearly stated.
    - You should consider potential confounding variables in your research design.
    - You should collect data from between 5-20 individuals, depending on whether your independent variables are within-subject variables or between-subject variables and what your participant population is. These individuals should be users of the modules that you are investigating. In most cases, you will need to look into recruiting staff or faculty for your project, although you could work with students who use Moodle for student group organization. Please consult with Mija about who you plan to use for a user population and how many individuals you will recruit. Mija and Amy should be able to help facilitate faculty recruiting, and Carly can probably help with staff recruiting.
- Your results section should include a summary of your data, including relevant comparisons that contribute to your rhetorical argument. I would like to see some of your data presented visually, in a table or a graph. You may make your graph in any program; you do not have to create your graphs from scratch in Python.
- Your discussion should include a summary of your research findings and a discussion of the implications of your study, including any recommendations. You may also choose to discuss any limitations of your study, but do not make this the focus on your discussion.

In addition, you will also be giving a presentation to ITS with an accompanying executive summary, as you did at midterm.

CS project expectations

- The CS portion of the project should be a mockup in Python representing a proposed redesign of the assigned Moodle module.
- The mockup should represent the revised user interface of the module.
- The user interface should present information in a visually pleasing, clear, and intuitive manner.
- Common tasks should be clearly facilitated by the redesign.
- The redesign should also include enough “backend” code to demonstrate how the redesigned module works. For instance, buttons should be clickable and should indicate what happens on a click event.
- The mockup should utilize object-oriented programming principles.
- The code should define classes for each of the main elements of the redesign, and instantiate objects of these classes.
- The code should be clearly written, with comments and descriptive variable and function names that follow Python naming conventions.