

COS 116
The Computational Universe
Laboratory 1: Web 2.0

Must be completed by, Sunday February 12, at 11:59 PM.

In this week's lab, you'll explore some web sites that encourage collaboration among their users, also you will create your own web site. They harness the power of "human computing" to provide a variety of remarkable services. You are probably already familiar with some of these sites: Wikipedia, Flickr, YouTube, blogs, etc. This rapidly growing category of the web has been called "Web 2.0".

This assignment is a take home lab. While conducting it, you'll write a brief report describing your experiences during the lab, including a questionnaire at the end. You should follow the instructions and complete the lab on your own. However, as in all the labs in this course, discussion with friends is encouraged. You can also post your questions on Piazza for help if you get stuck (see part 1).

Submission: Email the report and questionnaire as one pdf file to pu.cos116@gmail.com

- ▲ There are many easy ways to create a pdf file, including "Save As" in MS Word.
- ▲ Subject of the email: Lab Report 1
- ▲ Filename format: netId_Lab1_Report.pdf (put your Princeton netId in the filename, e.g. "berkiten_Lab1_Report.pdf")

Part 1: Sign-up for Piazza (10 minutes)

Piazza is a free online gathering place where you can ask, follow, search, and answer questions. In this class, we are going to use "Piazza" as a discussion platform, you should be able to easily to enroll the class page on Piazza by following these steps:

1. Visit <https://piazza.com/>.
2. By following "Find your classes" link, select Princeton University as school.
3. Change the term to Spring 2012 and search for COS116, click "Enroll" button. And enroll as a student with your email address.
4. Once you enroll the class, visit class page:
<http://piazza.com/class - spring2012/cos116>

a. After login, go to “Account settings” from the icon on the right top of the page, and change the email notification settings to “No Emails” and save (Not to get all emails for posts submitted by other students for this lab).

b. Post one question or answer a question anonymously. If the question is just a fake one to get this done, just put “Fake:” at the start of your question and we won’t bother trying to answer it. Put your post into your report with its web link.

c. Post one question or answer a question using your real identity. Same instructions as in 4a.

d. (Optional) Now you know how to ask questions on Piazza, which you can do any time during this course, including if you get stuck working on any aspect of this lab below. The instructor or TA’s may answer or another student may even get there first!

Part 2: Yelp (15 minutes)

Yelp.com is website in which you can find social networking, user reviews, and local searches. In this part, you’ll write a restaurant review on yelp.com.

- 1. Visit <http://www.yelp.com>**
- 2. Search for a restaurant-maybe from your hometown or from Princeton-that you already knew, and add a review. If the restaurant is not in the list you can create a page for it.**
- 3. Write the name of the restaurant and your review, and give the link for the webpage on your report.**

Note: Yelp requires verification round when you enter a review, so it's for your benefit not to leave it to the last day.

Part 3: Wikipedia (40 minutes)

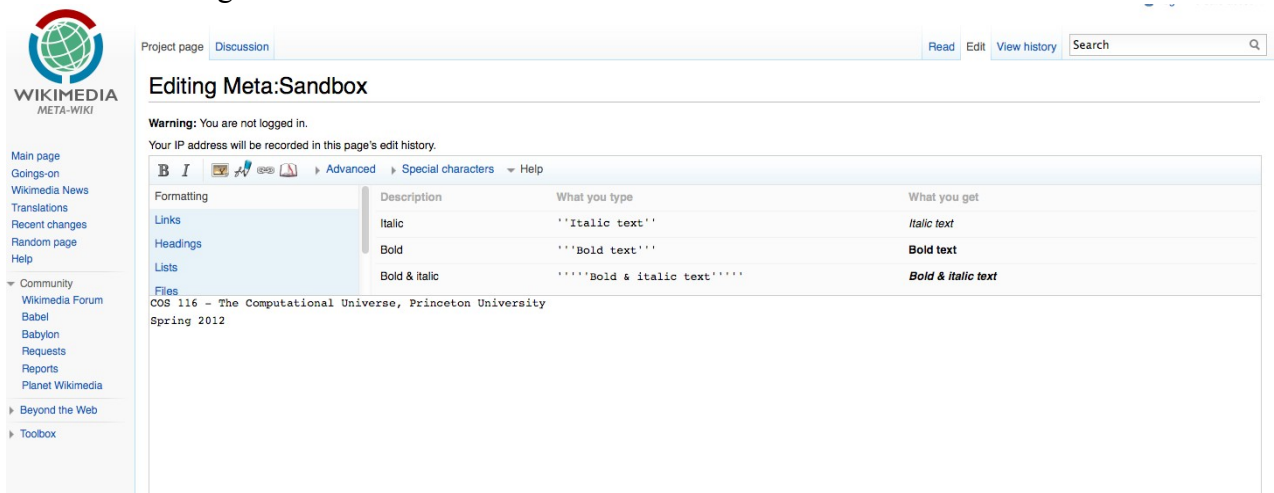
Wikipedia is a free online encyclopedia written entirely by its users. Anyone can add to or edit any page of Wikipedia, and as a result, the number of subjects it covers has grown dramatically in a short amount of time (it was started in 2001, and currently contains more than 3.8 million articles in English alone).

- 1. Visit <http://en.wikipedia.org>.**

If you haven't used Wikipedia before (or even if you have), spend a little time browsing the articles. Follow links from the front page to get started, or search for something you like using the search utility.

2. Visit <http://meta.wikimedia.org/wiki/Meta:Sandbox> to experiment with Wikipedia's editing environment. This is a kind of scratch page to allow new users to learn how to edit in Wikipedia.

- a . Click on the “edit” tab that appears on the top of the Sandbox page.
- b . A large text box will appear. Enter some text, and click “Show Preview” to see the results. You can also click “Save Page” to commit your edit to Wikipedia.
- c . Experiment with the formatting buttons that appear above the large text box, and also with the symbols you can insert by clicking the links near the bottom of the page. Note that Wikipedia uses a special “markup” language to control the appearing of text. For example, you can just type `''italicized text''` in the text box, and it will appear as *italicized text* when you view the changes. You can click on “Help” tab and different tips under different titles -such as links, lists etc.- will appear as in the following figure:



The screenshot shows the Wikipedia Meta:Sandbox editing interface. The page title is "Editing Meta:Sandbox". At the top, there is a warning: "Warning: You are not logged in. Your IP address will be recorded in this page's edit history." Below the warning is a table with formatting options. The table has four columns: "Description", "What you type", and "What you get". The rows show the following formatting options and their corresponding markup and rendered text:

Description	What you type	What you get
Italic	<code>''Italic text''</code>	<i>Italic text</i>
Bold	<code>'''Bold text'''</code>	Bold text
Bold & Italic	<code>''''Bold & italic text''''</code>	<i>Bold & italic text</i>

3. Once you are comfortable with editing, make a real contribution to Wikipedia.

- d . Find a page that discusses a topic you are interested in and know something about.

- e . Edit the page to add some information, correct some existing information, or otherwise improves it in a substantive way. (If you are really ambitious, you can start a brand new page on a topic that Wikipedia doesn't cover yet.)
 - If you are having trouble with this, note that your contribution does not have to be terribly momentous. For example, you could find the page on your favorite movie, and add a section of memorable quotes. Or, you could add a useful link to the "External Links" section of the page.
 - Summarize your changes in the "Edit Summary" box that appears below the editing area. This helps other contributors track modifications to the page.
 - Be sure your contribution has some value, and cannot be interpreted as vandalism.

Part 4: ESP Game (20 minutes)

There are many tasks that humans are much better at than computers. One of these is deciphering the content of an image. Any person can easily recognize a picture of a tree, but this is very difficult for a computer to do reliably. An application like Google Image Search would be vastly improved if each image in their database was labeled with a few keywords describing the image. As you might imagine, this labeling process is extremely labor-intensive.

Luis von Ahn, a computer science researcher, devised an ingenious method to coax people on the Internet to label random images: he turned it into a game.



Visit <http://www.gwap.com/gwap/>



Click "ESP Game" and click "Play as a guest", and wait for the program to locate a partner.



Play the game. You'll be shown a series of images. For each image, you must enter keywords describing the image. Your partner will be doing the same thing. As soon as you both enter a matching keyword, you'll be awarded points and the game will move on to the next image. After 3 minutes, the game is over.



Play the game a total of FOUR times. Make a note of your highest score.

Part 5: Creating a web site (15 minutes)

Creating a web site can be difficult if it is complex as in commercial web sites, but it is pretty easy if you are creating a personal web site. In this part, you will just edit a word document and convert it to a web page and publish it by placing it into your university account directory.

Here are the steps:

1. Login one of the cluster machines, or the lab machine where you login with your OIT account.
2. Open a Word document in your desktop, write your personal information such as “Email”, “Class”, “Hometown”, “Interests”, etc. Also you can place a picture on the document by simply copying the image file and pasting it at the document.
3. After finishing the editing, from the file menu select save as, then “Web Page” from the “Save as type” menu. The file name should be “index.htm” while saving. One example document prepared with such a procedure is in [“http://www.cs.princeton.edu/courses/archive/spring08/cos116/arora.htm”](http://www.cs.princeton.edu/courses/archive/spring08/cos116/arora.htm).
4. In your desktop, click Windows start at left bottom, then click “\\Files”, and go in “public_html” directory. Drag your “index.htm” file and the “index_files” folder into “public_html” directory. Now you have a web page! You can view it by typing “www.princeton.edu/~netID” in your browser.
5. Ask one of your friends who is off campus to view your page: Supply him/her with the page address “www.princeton.edu/~OIT_netID”, and ask to view the contents of your page. By now you are reachable by all over the world!

Part 6: Questionnaire

- 1) Briefly describe your previous experience with “Web 2.0”-style applications, your general interests about the applications like the kind you explored in this lab.
- 2) Was any part of this week’s lab particularly difficult or confusing?
- 3) Aproximately how long did you spend on this week’s lab?