

COS 116
The Computational Universe
Laboratory 1: Web 2.0

Must be completed by the beginning of lecture on Tuesday, February 13, 2007.

In this week's lab, you'll explore some web sites that encourage collaboration among their users. They harness the power of "human computing" to provide a variety of remarkable services. You are probably already familiar with some of these sites: Facebook, 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. After completing it, you'll write a blog post on the course blog describing yourself and your experiences during the lab. You'll also complete a brief questionnaire about the lab, and submit this in lecture. (More details below.) 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 email cos116@lists.cs.princeton.edu for help if you get stuck.

Part 1: Facebook (spend about 20 minutes on this part)

Facebook is a "social-networking" site. It is designed to facilitate social interaction among friends, co-workers, etc. According to Facebook, it is "a social utility that connects you with the people around you."

1. Visit <http://www.facebook.com>.
2. **If you haven't already done so, register and create a profile.** You'll probably want to use your Princeton email address when you register, although this is not required.
3. **If you haven't already, fill out some details in your profile.** Click on "My Profile" on the left-hand side. Remember that this information will be visible to members of the Facebook community, so be careful what you reveal. In fact, if you are concerned about privacy, feel free to simply invent personal details or obscure them in any way you like.
4. **"Friend" the course staff.** Search for *Adam Finkelstein*, *Umar Syed*, *Ari Feldman*, and *Forrester Cole*. For each of us, click "Add to Friends" on the search results. Most of us have names in common with other people on Facebook, so be sure you are inviting someone who is part of the Princeton network.

Part 2: 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 1.6 million articles in English alone).

1. Visit <http://en.wikipedia.org>.
2. **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.
3. 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 (between "discussion" and "history").
 - 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.
4. **Once you are comfortable with editing, make a real contribution to Wikipedia.**
 - a. Find a page that discusses a topic you are interested in and know something about.
 - b. 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 3: YouTube (20 minutes)

YouTube is a video-sharing website. The ease with which users can upload, view, and distribute video clips through the site has resulted in explosive growth (YouTube was recently acquired by Google for \$1.65 billion).

1. Visit <http://www.youtube.com>.
2. If you haven't already, register for an account.
3. **Find a video clip that you like.** Use the search box to help you look for something that interests you. Or, click on the “Video” tab at the top of the home page, and then check out the “Most Viewed” and “Top Rated” links on the left-hand side.
 - The content of your clip should be appropriate to share with the rest of the class.
4. **Leave a comment on the page for your video clip.** Click on the “Post a text comment” link below the video.
 - In order for this to work, you need to “confirm” your email address. If your address is unconfirmed, you'll be given instructions on how to confirm it when you try to leave a comment. Note: You may also need to open and close your browser after completing the confirmation process.

Part 4: Image Labeler (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. Google has recently licensed his technology.

1. Visit <http://images.google.com/imagelabeler/>.
2. Click “Begin as Guest”, and wait for the program to locate a partner.
3. **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 1.5 minutes, the game is over.
4. **Play the game a total of five times. Make a note of your highest score.**

Part 5: Blogging (40 minutes)

This semester we’re going to have a class blog for COS 116. You, the students, are the blog authors. (The staff will occasionally contribute too.) From time to time we’ll ask you to write short blog posts about a variety of topics. Your posts will be visible to the rest of the class, but not to members of the general public. We hope to generate some interesting discussion. You are also expected to read other students’ post and comment on them. Part of your course participation grade will come from these activities.

Shortly after the first lecture you should have received an email informing you that your blog account has been created. If you didn’t receive it, please contact Ari Feldman (ajfeldma@cs.princeton.edu).

1. Visit the course blog: <http://courseblog.cs.princeton.edu/spring07/cos116>
2. Login with your NetID and LDAP password.
3. Post a blog entry.
 - a. Click “Login (your NetID)” on the right-hand side, and then click “Write” at the top of the page.
 - b. In about 200-300 words, introduce yourself to the class and say a little bit about your interests. Tell why you are taking the class and what you hope to learn.
 - c. For the remainder of the blog post, describe what you did during this lab. Your post should contain the following elements.
 - i. **A link to your Facebook profile.** Create a link by highlighting the text that you want to make a link, and then click the chain-link icon above the editing area. The blogging software will then prompt you for the URL for the link.

- ii. **A link to the Wikipedia page you modified. You should also explain why you chose this page, and what changes you made.**
 - iii. **A link to the YouTube video that you selected, and what you liked about it.**
 - iv. **Your highest score for the Image Labeler game.**
- d. Click “Publish” to post your blog entry.** You can also click “Save” to save a draft of your post before you are ready to publish it.

Part 6: Questionnaire

Please complete the form on the next page and submit it in lecture on Tuesday, February 13.

COS116 Spring 2007

Questionnaire for Lab 1

Briefly fill out the following questionnaire and turn it in at the start of Tuesday's lecture.

Name:

Email:

Briefly describe your previous experience with "Web 2.0"-style applications, like the kind you explored in this lab.

Was any part of this week's lab particularly difficult or confusing?

How long did you spend on this week's lab: