# Newsletter: Using Computers in Chemical Education Fall 2006

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[Home](#)

[Current Edition](#)

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We have a single Fall issue per year.

We have sad news, Don Rosenthal, founder and chair of the Committee on Computers in Chemical Education (CCCE) died unexpectedly this year. Don's foresight, energy and hard work will be missed. He was a longtime friend and colleague. Scott Van Bramer has taken over for Don and we wish him good fortune in his new position.

## Harry switches from evaluating search engines to a new type of social searching.

### [What can Social Searching do for Chemists?](#)

**[Harry E.Pence](#)**

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"... Social searching is one such approach to the search process that may not yet be widely-known among chemists but definitely seems promising. The simplest definition of social search is a process that categorizes information based on the judgment of large groups of users, rather than a hierarchy created by a small group of experts. Some would argue that this is not a new concept; the links commonly found on web pages represent a simple form of social search, and modern search engine algorithms, like Google PageRank, evaluate the importance of web sites based on the number of "high quality" web pages that link to a site .

# Using Photos in Lab

Plus two book reviews.

Brian Pankuch

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**Ian has a significant collection of Flash movies for understanding polymers.**

## Polymer Science and Engineering Educational Materials

**Ian R. Harrison**

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For some time polymer science and engineering courses at Penn State have made use of Flash® movies or modules termed Reusable Learning Objects (RLOs) prepared by the author by melding minimum text with computer generated animation. These RLOs provide the framework on which students can 'hang' additional more detailed information.

Bob provides two active windows in his paper. One where you can add text, the other where you can enter a web link to see how his system works. To avoid frustration for Mac users you may try to use the Omniweb

(http://www.omnigroup.com/applications/omniweb/download/) browser to see both the definitions in his hyperglossary, and to have words you select searched in Google.

Bob provides this information: The AJAX hyperglossary links work with Safari, Firefox and Internet Explorer browsers and are not blocked by pop-up blockers (as you are not loading a new page). The JAS links do not work on Safari but do work on Firefox and Internet Explorer, but you must have pop-up blockers disabled (allow pop-ups).

Bob has put in substantial time and effort to provide a system for us to experiment with. I think it will be quite interesting to hear how you would put it to use. We both look forward to your thoughts. Harry's ideas on social networking might mesh well with this software. What do you think?

### Hyperglossary Generating Program with Wiki Content and Modifiable JavaScript Automated Search Functionality.

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One can postulate that the World-Wide-Web had its origins in the advent of HTML (hypertext markup language) which allowed navigation over the web through linked text. There was a fundamental limitation to this "web" as the links are confined by the knowledge of the author. As the content of the web grew, another way of navigation evolved through the advent of search engines. These allowed users to seek non-connected documents using key words instead of linked text. A logical next step is to combine these two processes. We have developed some JavaScript code which does that, creating a Javascript Automated Search (JAS) document, where every word in the document is hyperlinked to a search engine by simply highlighting the word. We have embedded the ability for JAS into a wiki hyperglossary generating program that can read web pages or text documents. This program utilizes Asynchronous Javascript and XML (AJAX) links that allow users to interact with a hyperglossary database without ever opening a new web page. Thus a document viewed through this program has three types of hypertext links; intrinsic HTML links to other web pages, AJAX links to the hyperglossary and JAS links to search engines.