

Ajax (Asynchronous JavaScript and XML) Enabled Dynamic Sites for Learning

The advent of dynamically displayed, interactive sites using Ajax technologies has opened new doors to the possibility of engaging students at a distance or outside of class meeting times. Such sites as online shared word processors, spreadsheets, and whiteboards enable real-time and asynchronous collaborations. Such applications as online group projects, real-time tracking of thesis writing and editing and inter-institutional online class collaborations will be shown.

In early 2005, the term Ajax was first used to refer to asynchronous JavaScript and XML enabled Web sites. Jesse James Garrett of Adaptive Path identified this new interactive movement that is spearheaded by many of the advanced Google-developed applications. In simplest terms, Ajax approaches enable faster responses to interactive Web applications by embedding an “Ajax engine” into the application as it loads so that actions such as mouse-rollovers, text-typing, and drawing are immediately displayed and prompt responses without the delay of sending the action back to the distant Web server and waiting for a reply. In this way Ajax applications are more like desktop applications, providing near-instant responses. But, unlike desktop applications, Ajax also enables multiple participants at distant locations to view and manipulate the same display.

The advent of Ajax has spawned a whole new class of interactive (and mostly free) online applications. Ajax has enabled entire operating systems to be emulated online! Most notably, however, has been the Web launch of word processors, spreadsheets, and whiteboards. The implications of shared, real-time applications such as these are enormous for teaching and learning.

For example, students and instructors/tutors can seamlessly work online in reviewing and editing written assignments. Rather than the time-consuming process of sending drafts back and forth, the two can freely share the same word processor and work together on improving a paper. Authors of scholarly publications at distant institutions can collaborate in real time or asynchronously and save the documents in .doc word or .rtf formats as well as share the documents with others. Students can compose theses online with their committee members able to review the document at any point along the way, making continuous comments and suggestions. This can help to keep students on track and avoid time-consuming missteps by the student. Spreadsheets can be shared among students in accounting and related classes. Students at distant locations can enter data into online spreadsheets while those at distant locations observe and comment, or participate in making additional changes.

The roundtable will include demonstration of sites such as: <http://docs.google.com/>, <http://eyeos.org/>, <http://www.editgrid.com/home>, <http://www.zohowriter.com/jsp/home.jsp>, and <http://gollum.easycp.de/en/>. Additional Ajax applications will be developed and released before the conference opens in March. Some of the new sites will be included based on their qualities and stability.

Each of the sites will be introduced and demonstrated. The presenter will bring multiple laptops with WiFi to share enable several participants at the table to test out the applications. Examples of ways in which these applications have been used in educational settings will be demonstrated. Participants in the roundtable will discuss the applications and ways in which they may use these technologies to facilitate learning in on ground and online classes. In addition, a blog will be

created for participants to continue their exploration of Ajax-enabled web sites. Through the blog participants will continue their discussions of the technologies and build collaborations through which they will be able to use the technologies to merge classes to collaborate on projects.

The goals of the roundtable include:

- Introduce this new class of interactive Web sites to participants
- Encourage discussion of a range of applications for these technologies in learning settings
- Create a blog-based forum through which participants may collaborate with others in discussing and using these technologies
- Encourage participants to develop collaborations among their students, across institutional boundaries, through which the students may use these technologies together, and in doing so come to better understand and appreciate the distant students with whom they collaborate