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"Matter, Method, and Machine: The Synergy of World History, Active Learning, and Computer Technology."

Douglas J. Cremer
Woodbury University

The traditional first-year world history survey, like many other survey courses, usually consists of broad coverage of content, formal lectures by professors, examinations using Scantron and Blue Book, and perhaps a short writing assignment consisting of a book review or an essay. This model, however, is being challenged by a number of developments in and out of academia. "Writing Across the Curriculum" programs, often done in conjunction with English departments, have stressed that students need constant opportunities to practice and to receive feedback on the grammar, structure, and organization of their writing, adding to the work of subject-area professors who must also concentrate on content, argument, and sources. The development of various active learning techniques, such as student-professor, group work projects, and student-driven discussions, has called into question the efficacy of the lecture model as a teaching method. Lastly, the potential within newer generations of personal computers, both in terms of word processing and Internet capabilities from e-mail communications to using the World Wide Web for research, has increasingly removed the professor from the center of the student's learning experience. The combination of these factors opens the possibility for a major rethinking and redesign of the first-year world history survey.

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A large quantity of research dating back to 1981 on critical thinking, collaborative work, and active learning (Hammer 1997) forms the foundation of this rethinking and redesign. The idea usually subsumed under the short phrase "active learning" involves the following principles:

the discovery rather than the transmission of knowledge, or put another way, the development of questions rather than the delivery of answers;

the professor as facilitator rather than dispenser; alternately "student-driven" rather than "professor-driven" classroom work;

the emphasis on both a disciplinary method of critical interpretation and a defined body of disciplinary knowledge;

the use of collaborative group learning and projects that are subjected to frequent public assessment and critique (Alley 1996; Ehrmann 1995; Hammer 1997; Yeager and Morris 1995).

The term "active learning" is a bit of a misnomer, since it indirectly disparages other methods, such as lectures, as passive, obscuring the active component of sorting and judging necessary for note-taking, and the active process of synthesizing disparate sources (lecture notes, course readings, class discussions) in preparation for examinations. What these methods share in common, however, is the role of the student as "actor" in the classroom, removing the apparent passivity of the student's role embodied in her or his posture in the lecture hall.

These basic concepts of active learning enable the professor to tailor much of the course to the specific needs and situations of often very diverse students as well as address one of the major conceptual hurdles in designing a world-history survey course. One of the greatest challenges professors of history face in the general survey course is exciting students about the study of history, motivating them to read, explore, and above all think critically about the past. This is not a new issue by any means, but the power of multiculturalism and the sweeping globalization of the American economy is also transforming the American university, and the heterogeneous population of any classroom makes assumptions about prior learning, shared perspectives, and common cultures difficult at best (Klein 1997). Similarly, assumptions about what motivates and energizes students to involve themselves in the study of history are subject to the same challenges. One can no longer focus on "a" tradition because both the orld and the classroom

contain many traditions.

This leads to the second greatest challenge, presenting the entirety of world history in just one year in way that does not fallback on tired Eurocentric themes. Early attempts at world history surveys made the related mistake of emphasizing the marginal, the exotic, and the different, keeping a now absent Europe at the center of the discourse. The transition from western to world history on many campuses has occasioned a major "reimagining of the world as history" (Geyer and Bright 1995), a major intellectual undertaking that is still in progress after more than twenty years of work in the field of world history.

Add to this the new ideas about student-centered learning that I had been reading and hearing about, and the result was a decision to allow the students to collaboratively design the course syllabus under my direction.

This is actually a lot easier and less risky than it sounds. I do know more about my subject than my students and can be more or less directive in this process as might be necessary. There are a few topics I might insist on if they do not come up with them themselves, but to be honest, that has actually never happened. We spend the first couple of weeks of class exploring the meanings of basic historical concepts such as memory, significance, perspective, and judgement through a variety of group activities. For example, on the second day of class, I will ask the students to introduce themselves to fifteen people in the room and find out something significant about each one of them. We then place all the names of the people in the class on the board and what others found significant about them. This leads to an interesting discussion of the meaning of significance, relevance, judgement, and perspective.

Meanwhile, they are exploring both the text and the course web site in search of historical topics of interest. By the third week of class, I have the students choose ten topics however they may define them. The creation of these lists also marks the first e-mail entry I ask of them (more of which below). Their ideas generally fall into the obvious categories of persons, events, movements, or political entities such as Moses, the conquest of the Americas, Christianity, or the Han Dynasty. We then begin listing these topics on the board in the classroom and begin grouping, organizing, connecting and refining them into our final collective list of ten. Most of that week is taken with the work necessary to brainstorm, outline, assign, and schedule relevant readings or other resources topics (URL= http://www.woodburyu.edu/dcremer/courses/wldciv1/schedf97.htm).

This activity, however, I had already done without the necessity of introducing technology into my interactions with my students. Again, to my surprise when I began researching this paper, it was exactly the kind of work some authors believe is essential in making the transition into a computer-enhanced learning environment. If one looks at the efforts to introduce writing across the curriculum and the submission of drafts and revisions even in history-based essays, one finds that the move to active learning predates the introduction of technology. The technology enables more and faster applications of active learning techniques, but has not created them in and of itself. Furthermore, without this preparation, the "flying merge" necessary to enter fully and readily onto the information superhighway would be most difficult. (Batson and Bass 1996).

The preparation for the brainstorming needed to construct the course syllabus is thus also the first opportunity to introduce the use of the e-mail journal. Each week, beginning with the third week, students are asked to send in an e-mail journal entry based on the reading or work they have done in the class. Each e-mail journal (approx. one screen in length) identifies and discusses at least one major point, observation, story, or criticism they found or formed during the week. Their e-mail journal entries are distributed unedited to all the other members of the course. At this stage, I act solely as the moderator of the e-mail discussion, occasionally adding my voice as one of the participants. Beginning with the fourth week, students are asked to add a second weekly journal entry, specifically written as a reaction to at least one of their classmates' e-mail entries </font(URL=http://www.woodburyu.edu/dcremer/courses/wldciv1/wldciv1.htm#journals).

The aim of these exercises is fourfold.

First, I wish to keep them writing, knowing that constant practice and the critical feedback of others on the list will help sharpen their skills. As early as 1987 educators were noticing that word processing was enabling a whole new culture centered around the frequent rewriting and rethinking drafts; this process is facilitated even more by e-mail (Ehrmann 1995). Second, I am able to keep up with what they are learning, seeing, finding, and thinking on a constant basis. The feedback among the students and with myself is thus continuous, allowing for adjustments to be made in the course rather quickly. This is an essential element in effective active learning (Alley 1996). Third, the mailing list format is a good supplement to the main work of the course, serving much as a TA-led discussion section can in a course with three hours already devoted to lecture. It provides an open and relatively safe forum, which I believe is more secure and less intimidating for many

students who otherwise might refrain from contributing in a more traditional forum (Hammer 1997). Lastly, the e-mail journal allows students to become comfortable with the frequent use of the computer and the resources of the Internet for learning, thinking, and communicating (Rogers, et al. 1996). This is key in that all of their research work must be submitted in the form of web pages. Students are asked to construct one web page individually and another as a group project.

Much of the success of active learning comes from its open nature. Student work is not just privately critiqued by the professor, but publicly by the students. This of course necessitates some training in evaluation, both of sources and of student work, but the goals of critical thinking about historical sources and about student projects are remarkable similar (URL=http://www.woodburyu.edu/dcremer/courses/wldciv1/evaluate.htm). The students, web page projects are posted on a web site that I maintain myself. Each student web page has to fit within "The Cube of World History," an organizational structure of web pages I constructed (URL=http://www.woodburyu.edu/dcremer/the_cube/cubiclg.htm). The students are able to make some common link between the individual and group pages, usually by forming their groups of five to seven based on some common element in their individual projects. They submit a preliminary draft of their individual and group web pages in their midterm review. We then spend much of the second half of the course critiquing, editing, and revising these web pages. In addition, the final two weeks of the course are taken up with brief oral presentations of the web pages to the class. All midterm and subsequent drafts are posted to the course web site for discussion, but only those pages that meet the evaluative standards we work on in the course are maintained on the web site after the course concludes (URL=http://www.woodburyu.edu/dcremer/the_cube/newpages.htm).

"The Cube of World History" is a virtual three-dimensional space containing text, images, print sources, and web links to a wide variety of topics in world history, all of which are student constructed. Each axis in this space represents an organizing idea: geography, chronology, and category. The division of each results in a 5 x 5 x 5 cube. Each of the 125 points within this space has been assigned a separate web page. This design is more readily evident in the Guide to the Cube of World History, a framed set of web pages. The guide asks you to select one geographic area, then one chronological era, and then one topical category in order to locate a particular space (and therefore web page) within the cube (URL= http://www.woodburyu.edu/dcremer/the_cube/frame_guide.htm). The result of this search is a content page with a heading such as "Europe - Modern - Politics" or "Pacific - Ancient - Culture."

Within each of the five broad groups representing major geographical areas, chronological eras, and categories of analysis there are a further two to six subdivisions, resulting in a more refined cubic space with sixteen subdivisions to a side. This second level of the cube creates the specific web sub-pages. These sub-pages are tied with links to the student web pages as well as to many other web pages both within this site and external to it. Thus to see about the daily life of the contemporary indigenous peoples of Amazonia, one would look for web page: "Americas - Modern - Culture." Within that page, look for the sub-page labeled: "Amazonia - 1950-2000 CE - Popular Folkways" (each web page has an index at the top to guide you through the sub-pages). This of course assumes that the class and/or the professor have worked on that particular task. It will be quite some time until that is accomplished, as there are over 4,000 web sub-pages in the project. In this case, a pilot group of students this summer completed a series of web pages, this one among them.

In conclusion, I began teaching world history in the way I had been taught myself, a method in which the professor develops the syllabus and readings independently, lectures and directs discussion after his own agenda, and assigns and reads term papers on topics she provides. The transition to a course with collaboratively developed syllabi, student generated e-mail discussions, and projects based around the group and individual construction of multimedia web pages was not immediate. There were a number of intervening stages, the majority of which were actually sans technology. The purpose of the Internet and its wide variety of uses in a world history course such as mine is to enable and expand the active learning environment I had already begun to create. It does not bring it into being by itself; rather the technology is another tool, and an highly effective one when properly used, to add to the array of implements: intellectual, pedagogical, textual, and analytical, that I use in the classroom. The resulting synergy has been exciting, at times unpredictable, but above all invigorating to both my students and myself.

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"Using Student-Developed Syllabi, E-Mail Discussions, and Web Pages in an Internet-Based World History Course"

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