

Wired in the Classroom: Reflections on Instructional Technology and Pedagogy

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In the winter of 1996, I made the quantum leap from graduate student to lecturer and from computer idiot to computer geek. At

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Field(s):

American Studies; Political, Social,
and Comparative History,

Course(s):

1. U.S. Politics and Society
2. Reinventing Citizenship

Context:

--300-level undergraduate seminars;
all liberal arts students—wide variety
of disciplines; University of
Michigan, Ann Arbor—selective
public University with excellent
technology resources

Intention:

First, I wanted to invest students with
a degree of responsibility for and
ownership in the course. In addition,
I wanted to use these assignments as a
means of understanding the politics of
the issues being discussed: to ask how
these topics were constructed both in
and out of the academy. Finally, I
wanted to provide a forum for students
to share their work with an audience
wider than the members of the course.

the end of the previous fall term, on my third repeat of a "How to Use the Internet" workshop, I finally grasped what the Internet was and how I could use it for research. In my first flush of enthusiasm for the possibilities I had never previously known existed, I began to wonder how I might be able to use the Internet in the two new courses I was scheduled to teach in the winter term. It took me no time at all to decide that I would create class web sites and web-based assignments for each course. My initial pedagogical goals were to involve students directly and immediately in sharing responsibility for the course content, and also to provide them a forum for publishing some of their own course work. The fact that I had no idea how to create a web page or how to make web-based assignments work for the students or for the course seemed minor

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obstacles. With the support of the Program in American Culture at the University of Michigan, and the absolutely vital assistance of Daryl Maeda, I plunged into my “wired” courses. It is a tribute to many people, mostly my students and Daryl, that I emerged at the end of that first semester a still enthusiastic if far wiser and somewhat jaded proponent of web-enhanced instruction.

Instructional Technology and the Politics of Knowledge

In 1996 and 1997, I incorporated the Internet in two upper division undergraduate seminars AC 345, which I taught in both sessions, was an interdisciplinary course on postwar U.S. politics and society, and RC 360 was an interdisciplinary and comparative course on citizenship. Both courses drew heavily on contemporary and topical subjects for weekly discussions and assignments, within an interdisciplinary framework that relied on scholarly literature from history, sociology, anthropology, political science, and law. By bringing the Internet into these courses, I wanted to engage students in the contemporary discussions of current social and political realities in the U.S. and around the globe, and to show how these realities are framed in academic and in popular discourse. I asked them to locate and analyze sources of information that, for the most part, came from outside the academy and were intended, often polemically so, for a far wider and less specialized audience. I wanted to involve them in the critical assessment of these new electronic sources as a means of moving into other discussions about truth, accuracy, bias, reliability, models of research, accessibility of information, misinformation, in short, to understand the production and politics of knowledge. Much of what they would find on the Internet would never make its way onto the shelves of the library, but were there ways that we could and should use some of it in discussing these issues? I wanted to give them the opportunity to bring to the course relevant materials that would never end up in my course pack. And they did, everything from a self-proclaimed minister’s anti-homosexual sermon to a web site by and for the homeless.

In preparation for writing this article, I revisited the web sites that I created for these courses. When I connected to the home page for the Program in American Culture, I was relieved to find that my original sites were still archived and available. But, as I soon discovered, the archive and the access were more apparent than real. Internal and external links no longer function; it is no longer possible to access the email postings and threaded discussions; and

most student projects are no longer available. The web sites are now little more than the shell of a syllabus and a few very slim reminders of what had once been two exciting and innovative courses. But in 1996 and 1997, one of my central assumptions had been that my students and I were together creating a course, a space, knowledge, *something* for posterity. As one student wrote, "unlike written research papers which after being graded lapse into history, these homepages are ours to mold. I plan on adding to my homepage and keeping it up-to-date. This means that the research process is continuing outside the classroom, even after class is over. What more could a teacher want from his/her students?"¹ What more, indeed. In reality, it turns out that those assumptions were valid only in the time and space when the course took place, just as it is the un-wired classroom.

The more I have worked with web-based instructional technology, and the more risks I have consequently demanded of myself and of my students, the more I realize that I am experimenting with something that is by its nature ephemeral and, in certain critical ways, uncontrollable. When I argue that a "wired classroom" experience crosses scholarly and pedagogical boundaries in new and exciting ways, particularly in the control, source, and production of knowledge, I also know that there is an underside to the technology that troubles me. On a very basic level, I worry that I am not enhancing students' classroom experience with these additional bells and whistles, but am only pandering to their, and my own, fascination with new technologies. Am I doing anything that changes qualitatively the learning experience of my students for the better? On a more abstract level, I wonder if a wide-open cyberspace can or should provide a substantive challenge to the scholarly status quo. Can we really consider the Internet as a source of knowledge valuable in the college classroom?

When critics challenge the value of what I do with web-based instructional technology, my response is always that I am providing students new and challenging ways to interact with me, with each other, with the course, and with the broader worlds of scholarly inquiry that the web opens for them. Yes, I know there is more garbage than wisdom on the web. Yes, I know it has become little more than commercialized voyeurism. Yes, I know that wires and tubes and anonymity are now replacing face to face human contact, and with regrettable consequences. Yes, I know that students are now able to plagiarize more easily than ever before. Of course I know that this technology is being viewed all too readily as the classroom of the future by institutions and administrations quite

willing to envision a future without tenured faculty, with low overhead, and with a huge return on investment. And, yes, I know all too well the concern that faculty rarely find institutional recognition or support for the enormous energy and time it takes to incorporate instructional technology into the college classroom experience. I'd like to think I am not entirely a fool.

But I also know that using web-based instructional technology in my courses has caused me to reconsider not only how I design a course, but how I implement it as well. I know that I have been forced to reconsider the location, source, and control of knowledge and its production. And I also know that I have come to a greater understanding of the students who share these courses with me. Using the Internet in my classes has provided a glimpse into students' perceptions of the world that I am not certain I would ever have accessed, at least in the same way, when I controlled the course content entirely through more intellectually legitimate sources. Frankly, it scared the wits out of me when a student contributed a web site promoting mail order brides from Asia to our on-line threaded discussion on contemporary U.S. politics and society. But I also learned some lessons that I will never forget: how to help students look past the obvious, to challenge their own assumptions, and to justify one's own positions and actions on an intellectual and not merely personal level. I also learned something important about trusting my students to take command of the sources of information they use and, also, to give them the power and the responsibility that goes with that control. Of course, that is what we all do in the classroom, regardless of the tools we use. I do not want to insist that somehow technology provides the key we have lacked to unlock our students' minds. I do want to insist, however, that it has enabled *me* to rethink what I am doing as a scholar and a teacher.

In this article I want to draw on my own experiences, successes, and failures to make a larger point about the perils and the promises of the wired classroom. Although I believe that one of the great advantages of what I do with web-based technology is to make their direct participation in the sources and production of knowledge more available to my students, I also recognize that this very availability is a significant problem. In fact, it seems to me that my critics are often making just this charge: that web-based instructional technology sends the message that shared information is knowledge, that knowledge is open to anyone with server space and an opinion, and that knowledge is and should be at our fingertips. Intellectual luddites? Or simply an implicit recognition

that the technology-enhanced accessibility of information is creating a world in which the production, assessment, and dissemination of knowledge in the classroom is no longer controllable by the scholarly institutions and relationships that have always owned and legitimized it? Is accessibility both the problem and the potential of the web-based course? I think it is.

It may seem quite a stretch to leap to this conclusion merely from student contributions to a threaded discussion or their web projects for class assignments. After all, technology is merely a tool to enhance my course delivery. The Internet is merely a tool for student discussion groups or student projects. Power Point is simply a tool to make my lectures go more smoothly and keep my students' attention, as well as my own. Perhaps. But I am currently an Assistant Professor of History at Southern Illinois University Carbondale, and am teaching in a classroom building that, in the early 1960s, was the technological wonder of this campus. Over thirty years ago these classrooms offered state of the art overhead projectors, sound systems, film projection and television hook-ups. Today they are valiantly struggling to upgrade seriously outdated facilities in a building that was built without the infrastructural means to do so. Thirty-five years ago they assumed that they were at the pinnacle of the technology revolution. There were no plans for future upgrades because there was no thought that technology for the classroom would continue to change.

What has this to do with knowledge and accessibility? Just about everything. At a historically underfunded public institution like this one, my students and I do not have available to us resources that other, better-funded campuses are beginning to take for granted. While the situation here is improving, and I have every reason to believe it will continue to improve, the fact is that technology takes resources that many of us don't have—money, equipment, and time. How can you ask a student to do an assignment online when on campus computing facilities are inadequate and dial-in access is slow and difficult to connect? How do you address the needs of the non-traditional student who has never used a computer? How can you require, or even suggest, a web-based project when the students are not provided server space on University servers? This may seem both trite and obvious, but the reality of the limited availability of technological innovations for the classroom makes increasingly clear the distinctions that are being made between those who can afford access and those who cannot. At the University of Michigan, where an impressive array of computer resources are widely available to all, I believed the Internet would

help me to bring my students into course as active participants in creating the structure and outcome of that course. Do I still believe the Internet in the classroom will let me, with my students, cross those boundaries that traditionally keep the power and control and production of knowledge in my hands? Yes, I do. But it is important to recognize that, far from democratizing knowledge, the Internet may simply be reasserting and recreating the boundaries of knowledge, but on slightly different terms.

Redrawing the Boundaries of Knowledge

In 1996 and 1997, I wanted to open the boundaries of knowledge for my students, and I wanted to involve students in these courses as partners, if not quite equals. In each case, I created a very different set of on-line assignments, each tied to different course objectives and pedagogical concerns. In AC345, students contributed to weekly discussion sessions based on topics and web sites of their choosing. In RC 360, the Internet was used only for students' final research projects. In this course, I wanted students to learn to create web sites as a group, and to use the Internet as a source for their research and the place they would publish their project. In every course, the Internet was considered an integral component of the class, and students were informed of that from the outset.

The assignment in the AC345 seminar on U.S. politics and society asked students to work in small groups to specify a theme for the discussion, and to prepare a presentation for one weekly session based on at least one Internet source. Half of the other students in the class were expected to locate other Internet sites relevant to the theme, to email me a short explanation of the site and why they chose it, and to be prepared to bring information from the site into the student-led class discussion. I also listed all their sites, and their description of the sites, on the course web page for everyone to use as a resource for their end of the term project. I was not quite willing to let go of my need to provide the scholarly basis for the course or for their discussion, however, so I also required each group to read and include in their presentation an additional academic article, selected from a list I would provide. My own unwillingness to cut the cord in an experiment intended to do just that was one way that I felt I could justify this assignment, since they had a "real" source of knowledge to use as a point of comparison to the Internet sources. Increasingly, we all found the additional scholarly source an unnecessary burden and, although I am still

not quite certain *how* it happened, as the semester wore on no one seemed to be paying much attention to that part of the assignment. In retrospect, it seems to me that despite my own worst instincts, my students taught me the lesson I had thought I was teaching them, that they were partners in this process and needed both control and responsibility to do their job right.

Certainly the greatest success in terms of my own objectives and intentions was that students were unquestionably involved in constructing and shaping the course to no small degree:

In my opinion, the Internet contributions for our course were overall a positive aspect of the class. I felt that they were useful in adding a less “academic” perspective—as was conveyed by the course pack articles—and instead, offered a more “mainstream” point of view as a result of the wide variety of sources on the internet. I also thought that the Internet contributions were useful to everyone in the class as a manner of facilitating interest and discussion during group presentations. I personally was often shocked, disappointed, and angered over many of the internet contributions that I found, but was glad to have found them because they widened my view for each week’s discussions. In short, I think that the Internet contributions were an excellent way of creating an interdisciplinary and comprehensive approach to the course. (L. Richey)

This student’s comments² are representative of many of the students’ feelings about the value of the Internet component of the course. Without exception, students valued the Internet component of the course, and it showed.

But this raises the question I posed at the outset: does the Internet add anything significantly different to the course that could not have been handled on a non-technology basis? Surely any good group assignment based on outside research and in-class presentations could have provided the same experience, exposed students to different and non-academic perspectives. What makes the Internet special? In part, I think it is the accessibility of information on the Internet which, while problematic in itself when one tries to use it, does add a certain dimension to the assignment. If students research topics using print material, they are often limited to those materials published by the scholarly or popular presses. Does *Newsweek* really give us access to the voice and experience of a homeless man? A young, radical lesbian activist? What about grassroots community organizers? Or the opponents of Affirmative

Action or abortion? There is immediacy in Internet sources, which gave us the chance to hear voices that we might not otherwise hear, or want to hear. From this starting point, I could involve students in a larger discussion about the politics of knowledge, since both courses dealt with issues that engage countless millions of people on a different level and in different ways than they do scholars in the university. What and who determines the legitimacy of knowledge? Can we draw the line between valid and invalid sources of knowledge? On what basis? I am not certain we drew any valid conclusions in this regard, but as the above student and others indicated, they recognized that the Internet gave them access to information they would not otherwise have.

And in using Internet-based information, my students and I were also able to grapple with the assessment of sources of knowledge:

Not only did I learn about how to access the information I need by searching through the appropriate directories, but also how to use the diverse information on the internet to broaden the concepts we study in class. Because almost anybody can post almost anything they want, not all the available information is sound. Part of using the internet academically is to know how to evaluate internet material. Thus, one of the main concerns about using the internet material is the credibility of the source. However, this is true to some extent in all research-oriented projects, whether library research or internet research. About the use of the material in the class itself, the internet articles added depth to the concepts we studied because it allowed us to get more at real life, and not just research-based articles from the coursepack. (S. Hafeez)

Still, part of my concern was and continues to be whether or not that Internet material adds anything of significance to students' knowledge base. I think the answer to that concern is found partly in these comments. At the same time, I often found that the very accessibility of the Internet source too often led to an uncritical acceptance or rejection of the information based purely on the student's personal position on the topic.

Time and again I found myself asking students why they accepted one site at face value and rejected another out of hand. One particularly illuminating instance of that took place when I taught AC345 again in 1997, using a slightly modified but similar format.³ One student located a site, which was ostensibly that of a homeless man who related in poignant detail the experiences he and his

family had when they lost everything and ended up on the street. This student took the initiative to email the man and ask him additional questions, and then shared his responses with the class. It was a wonderful moment and all agreed that this was what made the Internet worthwhile. Then I asked the fatal question: why did we assume that this story was true, and why did we take his story uncritically and at face value? We had, in fact, just ripped apart another site as “utterly biased,” why not this one? Dead, frankly appalled and stunned, silence followed. The student responsible for sharing the site finally replied that the difference was that this was his personal story and she had communicated with him. Students around the room chimed in their agreement, and it became clear that I was considered entirely out of line for even suggesting otherwise. I realized that I had a ways to go before I could claim any *unqualified* success in using the Internet as a means of teaching students about assessing sources of knowledge.

Still, the very accessibility of the Internet, in terms of the kinds of information presented and the general audience to which most sites are directed, did give students an easier point of entry into the critical analysis of that information. Had it ended there (when it succeeded), I would consider this less than successful, but when I taught AC345 in 1996 it seemed to translate into a greater ease in learning how to analyze the scholarly resources we read. By the second half of the semester, I was amazed to find that increasing numbers of students were beginning to look at the footnotes, the research methods, and the way an author used the information she had gathered to support her analysis. At least some students were beginning to make the connection between the assignments, as one student made clear when she attacked an author’s data set as no less biased than that of a web site the class had just critiqued. I should note here that I didn’t find this to be quite so clearly the case when I taught the course again in 1997. That group of students seemed cynically predisposed to dismiss everything academic and scholarly: one very bright student went so far as to suggest that the library was a useless artifact filled with useless scholarship. Certainly there was a striking difference in their handling of the web sites and the course pack materials, and I also felt I had far less success in getting them to assess the Internet sites on any basis other than personal agreement or disagreement with the topic or position taken. I don’t know why this was the case, but I suspect that it points to one of the uglier undersides of using the Internet as a source of knowledge for a generation almost instinctively suspicious of scholarship and the academy. The Internet’s

very accessibility legitimizes it in ways that scholarship's inaccessibility prevents.

Along these lines, I was amazed in both years that I taught the course to find truly remarkable differences in students' written responses to the scholarly and Internet information sources.⁴ The one- to two-page typed and double-spaced papers they wrote on the reading assignments were very often stilted and awkward essays. In contrast, their somewhat shorter Internet responses were unquestionably fresher, more to the point, and generally quite insightful. Clearly their comfort level with the Internet sites was far higher than with the course pack reading assignments, but that is hardly the end result I was hoping to find. In part this may have been a factor of the written format: a formal, if quite short, paper vs. an emailed response. Given the often-notorious ways that email has freed human communication from context and contact, it may be the case that the medium is here the message as well. Internet and email are accessible, fast, easy, direct, and straightforward, while scholarly work and formal papers are about as far from that as one can get. I'm guessing here, but I suspect there is a connection. When I use these assignments again, I will reverse the process to see if that makes a difference: require short but formal papers on Internet sites and on-line responses to scholarly works.

Publishing student projects on-line is another way of pushing them to a new level of engagement with sources of information, with research, and with the production of knowledge. In RC360, I required students to do on-line research and to produce a final project for posting to our course web site. Because this was a tiny class of four students, I asked if they would like to learn to create their own web sites as part of the course requirements and they agreed, with only some hesitation on the part of one student. One of my first challenges was to discover that students had widely disparate levels of computer expertise and none of the students had ever taken a course requiring them to work extensively on-line. My second challenge was to attempt to learn enough about the Internet and creating web pages to enable me to stay one step ahead of the other members of the class. And the best lesson I learned came after I acknowledged my own ignorance and began working *together* with the students to understand the technology that we needed in order to fulfill the course requirements.⁵

I was not entirely satisfied with the final results of this experiment. On the one hand, and quite without design, the final projects reflected some of the breadth and complexity of the subject of citizenship through their choice of topics. On the other hand, only

one of the projects even began to approach the kind of analytical depth that such a project requires. In large part, I believe this resulted from students thinking that a web site project required only Internet sources and links for evidence, something that I failed utterly to anticipate or adequately address in my directives to them. And there simply were not enough quality sources on the Internet in 1996 for these students to access for their research. One student noted her own dissatisfaction with the outcome when she suggested in her evaluation that I assign a standard research paper in the future: "A paper would involve more dedication and obviously time, but it would also motivate."⁶ In fact, this student identified the problem: student web sites that rarely pushed beyond the surface of the topic. When I taught AC 345 in 1997 and offered students the option of putting their research projects on the Internet, most students produced research projects that did incorporate multiple kinds and sources of information. Even in the best cases, however, I found they did not adequately reflect a consistently developed analytical approach to their subject. Why?

At least in part, I believe this is a factor of the very technology of web sites, which structures the ways in which information is presented on-line. Anyone who has designed a web site knows that you are simultaneously freed and limited by the technology and by the established protocol of web site design elements. On the one hand, you can more readily incorporate visual and audio elements in a site. But on the other hand, the fact that web sites are *intended* to be more graphics (and audio) intensive, as well as layered in linked pages, also shapes the ways that most "webmasters" present their information to the world. Certainly one can put up a site that is text-oriented and that presents original research based on traditional sources of material, but it is a rare site that does so. Even the archival sites produced by the Library of Congress or the National Archives follow a standard web design format, heavy on visual elements, short on text, and long on layers of information that can be easily and quickly accessed. There is nothing wrong with that, and I am eternally grateful for the Internet access to visuals, graphics, audio, and video clips that would otherwise require a major research trip. However, in terms of the production of knowledge, we have to recognize that web sites present information in a format that unquestionably affects the material made available to the viewer, whether it is the American Memory page or a student project. While there is no doubt that the technology is revolutionizing our access to a wide range of materials, we need to be careful to recognize that this technology is also shaping the quality *and* con-

tent of the resources through the ways that web sites are designed, structured, and presented.

Back to the Future?

In the end, I know that despite the problems I will continue to use the Internet in designing and implementing my courses and course assignments. I want to advocate for the considered and responsible use of the Internet in the college classroom, and I believe my three test cases show a qualified success rate that needs to be recognized. Where the Internet component of the course failed, I believe it did so in large part due to the lack of information I had about how to do what I was doing. Many more of us are using the Internet and other forms of instructional technology in the college classroom now than was the case in 1996 or even 1997. Every course taught me something new, sometimes positive and sometimes negative, about the use of the Internet in the classroom. I know that instructional technology and the Internet are here to stay, and I believe there are ways that faculty can use these as effective tools in the college classroom. I also believe that faculty must take the lead in instructional technology for higher education in order to control its use for college instruction. But whether or not my experiments with the Internet in my courses truly enabled me to challenge and cross the boundaries of knowledge with my students is a less clear outcome. I still believe the potential is there and must be seized, but with caution and with the clear recognition that we are in many ways dancing with the devil and must be self-conscious and self-critical about what we are doing. The boundaries of knowledge are being tested with the Internet, but we may not be able to control the ways in which they are being redrawn and the ways that may then shape the sources, production, and control of knowledge in the future.

This technology has an enormous impact on many levels. First, we need to recognize that the accessibility of the information on the Internet also leads to a widespread lack of quality controls that, alongside the tendency to simply take at face value what is presented as “the truth” and “official,” can contribute to the distortion of information presented. If anyone can put up a “Constitution” site, then anyone can rewrite that Constitution and provide flawed documentation deliberately or inadvertently. How can we police the information provided and how can we expect our students to do so? Even good web sites can make serious mistakes. Second, the accessibility of information provided by the Internet is limited

to those with the money and/or technical know-how to produce a web site. As my students in RC360 discovered in researching "citizenship" on the Internet, there are plenty of immigration lawyers out there with plenty of money to advertise their services and their version of immigration and citizenship laws to cyberspace. Third, the Internet, despite what we might want to believe, does not reach the world, but only limited sectors, and much of what is on the Internet is driven by the real or perceived demographics of the audience that surfs it. It is, for example, no joke and no accident that extremist groups have colonized a growing segment of the Internet to spread their messages. And, finally, while the Internet provides a space for students to publish their original research and other course assignments, there is always the potential for abuse that becomes magnified exponentially when downloading or misusing information is as easy as clicking your mouse. And the technology of web site creation must be seen as a potentially limiting factor, and one that clearly affects how information is presented and knowledge is produced in the Internet environment.

I do want to continue to use these "technology-enhanced" options, but I cannot claim that it is superior to more traditional class assignments, even if I generally prefer the technology format. Do threaded discussions really replace or support in-class discussions? How should they be used? What about the pressures to put courses on-line "for the students"? University web sites are public relations sites: is that where I want my work and my students' work to end up? On the other hand, I want to "go public." I feel my students and I should be giving something back to the wider community, and I believe web-enhanced courses help us do so. And when we do so, we ARE contributing to the production and distribution of knowledge in a way that crosses traditional boundaries. That is important and powerful and precisely the pedagogical message I want to send. But we need to remain self-conscious and self-critical about what we are doing, why we are doing it, and how it really adds to the classroom experience. When technology is touted as a means of replacing the classroom I worry: without the classroom, technology is not about teaching, not about learning, not about knowledge. Without the classroom, technology simply becomes a course delivery system. And that's not why I became a teacher, or why I used and will continue to use technology in my "wired classrooms."

Notes

¹ This student's project, which was the best in the course, is still on-line and shows no evidence of being updated after the course ended. His optimism was my optimism, and I suspect we have *both* learned the limits of our enthusiasm.

² Students in the course were required to provide me an assessment of the Internet component of the course. Because these were not anonymous, I realize that it may be felt that students didn't feel free to express themselves honestly. However, in the anonymous course evaluations students repeated their overwhelming and full support of this part of the course. Besides, if you go to the course site you will find that few of my students felt terribly compelled to mince words: several of them didn't hesitate to tell me that my choice of readings left them cold!

³ In response to 1996 student evaluations, when I taught this course again I altered the Internet assignment slightly. In 1997, the course was a test case for a password-protected on-line threaded discussion program. This enabled me to give more direct control to the students, who were now able to post their comments directly to the conference and in that way to respond to postings from other students in the class. In addition, I asked the group members to each locate a web site one week prior to their discussion session, and the other members of the class would then choose one of those sites to view and respond to on-line. This worked far more successfully in terms of preparing students for the class discussion.

⁴ Regrettably, since I can no longer access the email responses of the students, I cannot show an example of this writing. I noted in particular that the students in 1997 wrote far better email responses than short papers, and that their email responses were overall somewhat better than in 1996, which I think could be a result of the changed assignment and on-line discussion format (see above note).

⁵ First one student and then another rapidly overtook my still struggling grasp of computer technology, and I learned as much from my students about how this worked as I ever hoped they would learn from me. When I taught AC345 again in 1997, I was able to offer my students a mini course (with the assistance of Daryl Maeda) in HTML and web construction so that they could produce their own web sites as optional final projects. Within two 2-hour sessions they were off and running and never looked back, and they produced some impressive sites. Regrettably, none of those sites are still available on-line.

⁶ She added: "I can't believe I'm writing this," and then went on to say that I should "(d)efinitely include the creation of a homepage on the syllabus though!" The problem was, and remains, whether and how to do both.