Using Websites and Listservs to Distribute Information and Enhance Communication

at the

University of Wisconsin-Madison

prepared for

The Institute on Learning Technology

part of the

Spring 2001

This quicklook also is available from the Learning Through Technology web site, http://www.wcer.wisc.edu/nise/ilt/

Using Websites and Listservs to Distribute Information and Enhance Communication

Barbara Anderegg
Instructor
Technical and Industrial Division
Madison Area Technical College
Madison, Wisconsin
banderegg@madison.tec.wi.us

Why use technology?

I started a listserv and a Website as part of a much larger project, a series of two summer metrology institutes designed to introduce K-12, two-year college, and four-year college instructors to the field and opportunities of metrology. The goal for the Website was to keep people informed about the project and to distribute materials—for this purpose the Website was and continues to be extremely valuable. As for the listserv, we hoped that it would help the close groups that formed during the summer institutes to continue to network and exchange ideas once the institutes were over. But it didn't really work out that way—the listserv was a very small part of the project, and I'll tell you right now it was a rather unsuccessful part.

If you are connected to the Internet, chances are you belong to one or more professional listservs. These are not just on-line "chat rooms"—when they're done right, they can be very helpful for staying current in your field and learning about job opportunities, conferences, and new resources; for sharing experiences and getting feedback; and for finding help from your colleagues with a question or problem. I'm on a couple of listservs myself, and I recruited a lot of people for the institutes over the engineering listserv I belong to. But except for a flurry of use right after one of the institutes, or in late January when we had our follow-up meetings, I think people were pretty much burned out and didn't want any more information. I'm developing ways for the work we did to be carried on, however, and it could very well be that in the future we'll use the listserv again.

The entire project was based here at Madison Area Technical College (MATC), which still supports our Website. MATC, as both a technical and a community college, serves about 50,000 people each year and is the second largest institution in the Wisconsin Technical College System. MATC awards associate degrees, technical diplomas, technical certificates, and offers an extensive selection of classes in liberal studies that transfer to four-year universities and colleges. We offer training for over 100 careers, such as biotechnology, machining, police science, welding, accounting, and computer networking. Besides hosting the institutes, MATC also made available its state-of-the-art metrology equipment in its laboratory.

What is metrology?

Metrology, the science of measurement, covers every kind of measurement you can imagine—weight, length, volume, time, flatness, parallelism—and runs through all industries: manufacturing, biotechnology, electronics, and so on. My field is dimensional

metrology: basically, linear measurements. In ancient Egypt, the standard of length was a black granite cubit that was originally based on the length of the Pharaoh's forearm (about 18 inches). Today the length standard, used by everyone around the world, is the distance light travels in a vacuum in 1/299,792,458 of a second. Flatness and parallelism are measured down to millionths of an inch; when you're measuring something that small, everything has to be right.

Metrology is extremely important to major industries and to the science and technology communities—and growing even more so on a global scale. Metrology provides a common "language" to mature industries (automobile, steel, chemical processing) and emerging ones (nanotechnology, microwave communications). Precise global standards of measurement make it possible for a company to build a machine in Australia, with some parts coming from here in the United States and some parts coming from New Zealand. We all measure against the same standard so that when we ship the parts to Australia, they all fit together. Many corporations won't deal with a company unless it can meet ISO international standards that require manufacturers to calibrate and document their use of measuring tools.

The project

We developed and conducted two weeklong summer metrology institutes that brought together K-12, two-year and four-year college science, mathematics, and technology instructors to learn about the career opportunities in metrology and pass them along to their students. These institutes and the work described in these vignettes were actually part of our second National Science Foundation grant, "Measure Up: Dimensional Metrology and ISO 9001." The first grant, "Advanced Dimensional Metrology and ISO 9001," also featured a summer institute and laid the groundwork for the work described here. For more information about the project, visit our Website: http://www.madison.tec.wi.us/is/aati/machinetool/nsfgrant/

The strategy

We created this project to address a major problem in engineering education: recruiting people. Employers need high-caliber, trained workers for increasingly technological jobs in the manufacturing industries. This is especially true in metrology. We want to let people know this is a fascinating field to work in.

We also created and worked with a network of educators, including the University of Wisconsin, and industry representatives that included major corporations such as Ford Motor Company. The goal of the summer institutes was to let K-12, two-year college, and four-year college teachers interact with metrology experts, work hands-on in our metrology laboratory, develop metrology modules, and take home and use a kit containing some basic metrology measuring instruments. We wanted them to have fresh, practical metrology examples straight from industry to use when they teach science and mathematics. I think the easiest way to learn math and science is to learn their real-world applications—then you want to know the theory of it. It's more interesting to let the application drive the theory.

Both the Website and the listserv were written into the grant, to provide instructional and outreach support to the institutes. For each institute, the participants heard presentations from experts and then adapted the material they had heard into curriculum modules for

their own use. Each institute produced five modules, written by the participants. These curriculum modules—covering topics such as “Precision Metric and Imperial Measurements,” “Statistical Process Control,” “Level vs. Flat”—then went up on the Website for anyone to download and incorporate into their classes.

As part of the grant, we funded a graduate student of one of the co-investigators at 50-percent time to develop the Website. He was very computer literate and built the Website by writing all the HTML code for the pages, graphics, links, etc. Our co-investigator uploaded the modules to the Website. I continue to manage the Website, at first going by the “cookbook” instructions that our Webmaster and my co-investigator gave me. They gave me a copy of the software program WS_FTP to update the Website. I changed names and photos when I needed to and once in a while deleted a page. Now I use Dreamweaver software to update the Website. I’ve had extensive help from the computer information staff at MATC.

MATC also supported our listserv. They already had a number of listservs up and running; we asked them to set one up for us, and we just logged on. And I didn’t really have to do anything except help people log on, which each person did by sending an e-mail to the listserv support server, typing in “subscribe” and his or her name. Once the listserv was up, I also took the responsibility for managing it. At its height, we had enrolled 25 to 30 people.

Note: If you’re writing a grant to support a project that involves using technology, make sure you include funding for someone who knows his or her way around computers.

The learning technology

Website Development: Although I originally used WS_FTP to support our Website, now there are software packages like Dreamweaver and Front Page that make it much easier to create and support a website. I recommend taking a class in Website development.

For more information on Website development, here are two sites that can help: http://www.usanol.com/resources.htm, and http://www.li.net/~ndonohue/webpage.html.

Listserv Development: Because I wasn’t directly involved in setting up a listserv, I don’t feel qualified to recommend any particular software or service. You can set up a listserv—or mailing list, as they’re also known—in a variety of ways, choosing from a number of different applications to support the listserv. Basically, you need a server, a mailing list software program, and someone to mange the list. Start with your school’s Information Technology support people; if you want more information, two sites that have a lot of information are: http://www.livinginternet.com and http://catalog.com/vivian/mailing-list-software.html.

The funding

My co-investigators and I received two grants for our project from the National Science Foundation, Division of Undergraduate Education, Advanced Technology Education (DUE-ATE). To get more information, start at the NSF Website: http://www.nsf.gov.

The results

We just loved the Website; it came in so handy for letting people know about the project and for distributing the modules. I never had to put materials into a package and send them to anybody. All I ever had to do was give the URL for the project. People said, “I’d like to know more about your institutes,” and I said, “Here’s the URL.” That’s it. By accessing the URL, they could get all the materials we generated for all three of our institutes. It’s such an easy way to transmit information.

The listserv was another story. I’ve concluded that the manager of the listserv needs to keep the discussion going by regularly providing helpful information or posing good questions or topics for discussion. Some listserv managers post weekly “e-newsletters,” digests of information, or book reviews, for example. I did what I could, but since I was also teaching, I wasn’t able to give the listserv the attention it needed. There’s a natural ebb and flow of discussion and the manager needs to be ready to jump in if the list falls silent for a while. Also subscribers can get burned out if there is irrelevant information and discussion.

If you have any questions about our Website, the listserv, or about metrology, you can contact me at: banderegg@madison.tec.wi.us

LINKS
MATC: http://www.madison.tec.wi.us/
MATC workshop: http://www.madison.tec.wi.us/is/atti/machinetool/nsfgrant/
Dreamweaver: http://www.macromedia.com/software/dreamweaver/
FrontPage: http://www.microsoft.com/frontpage/
E-mail List Management Software: http://catalog.com/vivian/mailing-list-software.html