

Educom '97 Conference on Information Technology in Higher Education

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A summary of selected conference proceedings with some implications for Truman State University, for:

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Executive Summary

The general sessions of this conference were intended to stimulate conversation: books as we know them, beginning with reference works, will become obsolete; we are moving from an enlightenment-culture of calculation to a post-modern culture of simulation; and out of the anarchical but fertile petri dish of current world wide web usage will grow a more inclusive and representative citizen-democracy. The need for critical thinking endures.

Narrowing the focus to selected legal considerations: Internet Service Providers are generally not libel for criminal activity, character defamation or harassment that might occur over their systems. This protection might be threatened, however, if the service provider receives credible notice of system abuse and does not act on the allegation. Outside of such exceptional instances, It is legally advisable for a university not only to *not* monitor electronic forums such as bulletin boards and web pages, but to avoid giving the *appearance* of monitoring. Rather, a brief disclaimer and short statement of acceptable use policy was recommended (as Harvard University counsel concluded after several years of trial and error). Copyright law, protection of intellectual property, and the doctrine of fair use apply, of course, across all means of information dissemination. The privacy and security issues surrounding electronic communication, especially regarding student use in a university environment, remain legally muddled and are unlikely to be resolved in the near future.

Regarding teaching and learning, it was observed that the majority of jobs created in the foreseeable future will be information or service related, and institutions of higher education should strive to integrate liberal arts curricula with this fact. In response to the electronic information explosion, universities should have a long-term plan for the teaching and learning of information retrieval and its critical evaluation. Several universities have introduced short courses in information literacy, and one (Fielding) has defined information literacy as a liberal art. The larger point might be that learning is becoming more collaborative and interactive. In many fields the teacher will assume a greater role as an information guide and knowledge facilitator, and (as “university proprietorship of information continues to diminish”) academic preparation for true life-long learning will become crucial.

Faculty development in this area, then, is equally crucial. Faculty awareness of the value of web-based information is assumed (e.g., pages for the White House, the Smithsonian, the Library of Congress, etc.). The actual construction of faculty web pages is more problematic, as faculty are busy, and as there is a learning curve involved. Universities should provide both incentives and support for faculty web page development. Incentives can be as straightforward as cash rewards for the best new web pages each semester; support involves meaningful workshops in a computer lab, with the objective of producing a basic web page by the end of the session. Support can also take the form of simple web-page template software (mounted on the university server for all to use), and knowledgeable, responsive, centralized help-desk assistance. Finally, serious effort should be devoted to matching student resources with university need. Existing student expertise should be identified early, and utilized where it can be most beneficial. Subsequent student assignments would include the obvious—like student computer labs—and the less obvious, like offices of admission, offices of university and departmental webmasters, and offices of faculty who have exhibited the strongest interest in advancing their web presence. Conference discussion sessions for example, focused on a variety of undergraduate courses which have successfully integrated web-based instruction, including history,

anthropology, biology, geography, English, music appreciation, and art appreciation. (In this connection, the university might consider a graduated pay scale for students—those with highly desirable skills should be appropriately compensated).

The administration of a university web presence need not be burdensome. There is usually a university webmaster, with a limited set of responsibilities, but component page administration is typically decentralized, often down to the department level. One primary concern centers around the issue of web page standardization. The ideal tradeoff between regimental consistency and creative diversity is unresolved. It is widely agreed that detailed administration regulations on the format and appearance of university web pages will not work. The result tends to be stagnation or, more often, conspicuous disregard for the rules. On the other hand, the administrative philosophy of “letting a thousand flowers bloom” carries its own set of disadvantages. Compromise solutions center around the idea of a reasonably consistent look for university-maintained pages, including primary levels of academic administration, and two minimal requirements for all the rest: (a) identification of page-maintenance responsibility, and (b) existence of a link back to the university home page. A university-published style guide, coordinated with admissions office publications and containing aesthetic and technical recommendations, can be helpful. Additionally, an informal ‘web developers group’ (essentially open to anyone interested), can help foster a sense of organizational community and coherence. Again, training and university support for initial hands-on faculty development was emphasized.

Issues of equipment standardization, classroom design, “scalable” support structures, library evolution, and student documentation—including the concept of digital portfolios—were discussed in a variety of contexts, but are not summarized here.

Educom Overview

Organization. Educom is a nonprofit consortium of higher education institutions that facilitates the introduction, use, and access to and management of information resources in teaching, learning, scholarship, and research. More than 600 colleges and universities and over 100 Corporate Associates Program Members participate in and provide support for Educom projects. Educom is supported by member dues, service fees, and funding from government and foundation grants. Educom is governed by a board of trustees and is headquartered in Washington, D.C.

Educom and a similar organization—CAUSE ('the association for managing and using information resources in higher education')—are planning a merger in the near future.

Conference. 'The Premier Conference on Information Technology in Higher Education.'
Embracing the Changing Learning Environment.

Registered attendance was approximately 2,800. There were 44 concurrent sessions, 56 discussion sessions, and 29 poster sessions.

Vendors and sponsors were represented in a variety of categories, including communications, computers, multimedia, networking/connectivity, office systems and services, optical imaging/storage, peripherals, publishing, and software.

Vendors included IBM Corporation; Compaq Computer Corporation; Sprint; Acer/Texas Instruments; Digital Equipment Corporation; Adobe Systems, Inc.; Corel Corporation; Gateway 2000; 3Com Corporation; Cisco Systems; Lotus Development Corporation; Claris Corporation; OCLC Inc.; The Chronicle of Higher Education; several dozen others...

Program. The EDUCOM '97 Program Committee organized the conference into concurrent, discussion, and poster sessions, categorized into nine tracks by area of emphasis: Living in an electronic society; Understanding the Evolving Institution; Organizing for Information Service; Focusing on Student-Centered Learning; Delivering Content in Context; Foraging for Economic Solutions; Developing Strategies for Change; Hot Topics; and Updates, in addition to a wide variety of pre- and post-conference seminars and workshops. A complete list of these sessions is available from the Educom web page at

<http://educom.edu>

Cassette tapes of the keynote addresses, concurrent sessions, and discussion sessions are available from Recorded Resources Corporation, Millersville, MD (410.969.TAPE). A photocopied order form is attached.

Truman State University was represented at the conference by a small delegation of faculty and staff, funded from several university budgets. Representing the Office of the Vice President for Academic Affairs were Jon Beck (**JB**), Michael Bird (**MB**), Dana Delaware (**DD**) and student Matt Farwell (**MF**). The Instructional Technology Center was represented by Director Carol Race (**CR**), Pickler Library by Carol Lockhart (**CL**) and Allen Reichart (**AR**), and the Division of Language and Literature by Gary Jones (**GJ**).

General Sessions and Selected Legal Considerations

Opening Session

(Eli Noam, Columbia University)

Interesting discussion on the future of the printed volume. The effect on the university will be substantial. He theorized that traditional lectures will not survive in an era of increasing specialization; that publishers will publish courses, not textbooks; and that scholarly journals will be maintained electronically rather than in print. -CR

“Books will become secondary tools. They will be used only for entertainment. Publishers

Implications for Truman: The library will be able to provide many more sources electronically than it has been able to provide in print. Librarians will become support people for finding and using electronic information efficiently. -CL

This address concerned the concept that books will eventually become obsolete and replaced by some electronic medium. The speaker made the point that reference materials such as journals, dictionaries, and encyclopedias will be the first to be replaced. This electronic replacement would be in the form of an electronic book-like handheld device. The problem is that this technology is not available to us yet. The speaker stated that the technology would be available by the time the transition would be desired. The reason for the transition would be to reduce library storage costs and to allow the works to be easily searched. I have one objection to the entire idea. The book as generally been in the same form for a very long time. It really has not changed. How many times will the “electronic book” change formats before we reach a standard format? Is it possible to develop a standard?

Implications for Truman: I believe that the library needs to try to keep up on the new electronic forms of reference materials. In some situations, they need to play catch-up. Hopefully, this approach will help them to be aware of advances to come, and it will give the students the best environment in which to do research. -MF

General Session: “Readership Skills in a Culture of Simulation”

(Presented by Sherry Turkle; 10/30, 9:45). VIDEO TAPE available in Pickler.

“We have moved from a culture of calculation to a culture of simulation.”

The meaning of the word transparency in this connection has changed (today, we say we understand something at a level of superficial interface—if we can make it work.

Simulation. Navigation. Interaction. (Navigation without knowing the rules)

The triumph of tinkering. We have moved from an enlightened culture (calculation) to a post-modern culture (simulation). We have moved away from linear thinking and now move forward with a kind of intuitive sense without knowing the rules. It’s like a Turing test for adulthood: see who asks “what are the rules.” Downside: understanding of the rules (and their premises) suffers; individuals whose core assumptions may not be true learn to manipulate a system. The seduction of simulation invites responses: resignation, denial, adaptation. We must move to a new criticism; we must establish as a goal that users relate simulations to reality and that they challenge, critically analyze—‘interrogate’-built-in assumptions of simulation. (community, consensus, collaboration). -GJ

Implications for Truman: Teach students how to critically evaluate information obtained from the internet and other large electronic databases. Perhaps more importantly, strive to make clear the importance of understanding the rules and assumptions upon which various kinds of computer outputs are based. -GJ

“People play and use computers in a culture of simulation. They don’t understand how the simulations work. They just accept them and play by the simulation’s rules. We need to teach people to question the simulations: how do they work? what are their goals? rules? values?” (The video is on order for the Pickler Library) -CL

University Liability for Student Computer Use

(Presented by A. Ryan, University Attorney, Harvard University)

This lawyer presenting this interesting topic as an overview to greater issues of copyright and liability that universities are facing throughout network related presentation of material. One point made is that the student handbook should specify that the misuse of computing facilities is a crime. Students and faculty should both understand copyright issues—specifically that anything fixed on a tangible medium comprises copyrighted material (whether the copyright statement is present or not, and it should be present on web pages the university produces). Additionally, permission is required to reproduce web published material, the web is not necessarily “fair-use”.

The university should have an acceptable use policy for students, faculty, & staff. It should be brief, no attempt should be made to include everything, and lists in general are a bad idea (it allows pathetic excuses such as “it wasn’t on the list, so I thought it was acceptable to do...”). Examples of responsible or irresponsible behavior are helpful when accompanying this policy. The statement may be similar to the alcohol abuse policy. –MB

Internet Service Providers are not liable for *criminal schemes* perpetrated over their services. It is widely accepted that the Internet (ISP) is legally analogous to a common carrier, and therefore is not generally liable in cases of *defamation or harassment*. This protection might be threatened if it can be shown that ISPs were notified in writing of a possible legal problem and took no steps to investigate the validity of the claim. *Copyrighted* material is protected, but the *doctrine of fair use* exists on the Internet as in other realms of material duplication. The limits of fair use are described in various sources (and were not elaborated here). Note that software publishers in particular are very jealous of their copyrights. There is a doctrine of contributory infringement which might apply to an ISP if “it knowingly assists or facilitates the infringement” [or becomes aware of possible infringement after a credible warning]. But unanswered is the question of whether universities should actively monitor electronic bulletin boards: the probable answer is “no.” [‘Thomas’ (?) = legislative web site]. The U.S. congress is currently concerned with 3 areas related to the internet: encryption, gambling, and privacy (intellectual property and copyright concerns are always simmering in the stew as well).

Regarding university *acceptable use* policies, “keep it short and sweet.” This for two reasons: (a) students are clever, and (b) the longer the list of prohibitions, the more the university might appear as a monitor, which implies responsibility, which might result in greater susceptibility to difficulties in the legal areas of copyright, harassment, and defamation. Note Harvard University’s on-line policy: “responsible use...,” “civil,” offers

some examples; use limited to one's own electronic account, distribution of copyrighted software prohibited, opinions not censored. Note:

http://www.yahoo.com/Government/Technology_Policy/Information_Technology/National_Information_Infrastructure__US_/Intellectual_Property_Issues/

Some specific questions: (a) If an individual posts something on an electronic bulletin board or in a 'chat room' there is probably an implied consent for transmission and reproduction. Therefore, if you want it protected, but a copyright notice on it; (b) the student posting in electronic news groups of web sites where pirated software is available probably should not be allowed; (c) do faculty postings expose the university to liability? Possibly, but "only if the faculty member is acting as an agent of the university, and not as

Beyond FERPA: Student Information Privacy Issues in a Networked Environment

(Steven Worona, Assistant to the Vice President for Information Technologies, Cornell University)

New technologies are creating new challenges for security, privacy, and the management of information, and make issues of privacy much more complex than in the past. CAUSE and AACRAO (American Assoc. Of Collegiate Registrars and Admissions Officers) have published a white paper to assist colleges and universities in understanding these issues and in developing policies that reflect best information practices. The executive summary of the white paper is available at

<http://www.cause.org/issues/es.html>

A hard copy of the white paper itself is available in the Computer Services office in McClain Hall.

The lessons for Truman are that:

- 1. The issues are complex beyond all reason. For example, a liberal interpretation of "educational record" includes every student email message and web click, while a strict interpretation excludes almost everything except traditional SIS records. The final interpretation will probably never be settled, but will vacillate somewhere in between.*
- 2. The legal situation is completely uncertain. FERPA has been in effect since the late 1970's, but not a single case has gone to trial and judgment under the law. Thus, there is very little precedent to guide Truman in establishing policy.*
- 3. Several laws are clearly contradictory, especially FERPA and the Freedom of Information Act. The courts have barely begun to adjudicate.*
- 4. Sorting it out is hopeless, so we should wait, be conservative, and let bigger guns tackle the problem. -JB*

Closing Session

(John Perry Barlow. Retired Wyoming cattle rancher, lyricist for the Grateful Dead, founder of the Electronic Frontier Foundation)

“Everything should be open. No ideas or dogmas should be suppressed. Everyone can join the conversation. Everyone who wants to say something can say it without fear of reprisal.” *Implications for Truman: These are lofty ideals. Truman can use them as goals.* –CL

“Anarchy” on the web is far more beneficial than detrimental. The message of the danger of cyberspace is propagated by the traditional mass media—media that sell sex, fear, and violence for your attention (especially network television). This message was interspersed with lots of stimulating metaphors and engaging allusions: “information ecology of experience,” “our global sensorium,” “ganglion,” “at the bottom of the petri dish of the new information ecology,” “like the Cambrian explosion,” “Pascal’s wager” [Barlow bets against the existence of hell], “breaking through the surface tension...” Barlow does worry about the threat posed by Microsoft to this benign anarchy called the web, but expressed some relief that their software is “becoming such a hairball.” Most surprisingly, Barlow sees the Internet, ultimately, as a basis not only for revolutionary new political and sociological systems, but perhaps a new biological system as well. - GJ

Technology, Teaching, and Learning

The Information Revolution: How Digital Technology is Changing the Way We Learn

This was an interesting presentation dealing with the impact the information revolution is having on the job market and therefore the curriculum. It seemed to indicate that education will become more vocational in nature as 70% of all jobs will be information or service related. He talked about a model used by the Northwest Center for Emerging Technologies. *What this means for Truman is that in addition to our liberal education we need to integrate technology into our curriculum so that our students learn a wide variety of skills which will be crucial to their successful placement in the job market. This can be done within the context of the curriculum and without “teaching technology” as a discipline.* -CR

Transforming Education in the Age of Technology

(Carol B. MacKnight, U. of Massachusetts)

This session indicated that we need to address other ways of teaching students, based on a learner centered model. Outlined 6 different ways people learn. Discussed Myers-Briggs test and commented that most faculty were Abstract-Reflective while students were Concrete-Active.

Truman impact: Examine teaching styles of faculty and investigate idea of collaborative learning. -AR

<http://www.comp.lancs.ac.uk/computing/research/aai-aied/information/ariadne/>

Dr. MacKnight talked about transforming education through technology. The new model will be learner-centered. *We need to work on the collaborative development of resources, and move from the glitz of home pages to using the Internet to convey instructional content.* -CR

From Chaos To Coherence: Trends and Issues in Teaching Information Literacy

(Belinda Barr—Miami University, Jeremy Shapiro—Fielding U.)

Miami University teaches a 1-credit hour course on information literacy to develop life-long learning of technical tools. Librarians no longer worked at the reference desk but trained staff through an intensive course to assist patrons. Fielding University promoted the idea of information literacy as a liberal art. Stressed the importance of this concept as a key ingredient for citizens of an information society. Phases of literacy exist (catch up, remedial to mature, complex) and increasingly universities will get more students who “know” how to use the technology. Colleges need a long term plan for literacy and need to incorporate the idea of the overall social model which governs literacy.

Truman impact: Need to prepare courses for the technologically adept. -AR

<http://www.lib.muohio.edu/~bbarr/educom>
<http://www.fielding.edu/public/educom/>

Virtual Environment as an Agent of Change

(Robert Benfer, Prof. Dept of Anthropology; Bryan Carter VR Instructor; Ali Hussam, Dir. Advanced Technology Center; Gail S. Ludwig, Assoc. Prof. ---University of Missouri, Columbia).

<http://www.atc.missouri.edu/vr>

<http://www.utexas.edu/depts/grg/eworks/wie/ludwig/earthwor.html>

Three University of Missouri teachers are creating virtual reality to use in their teaching. One is an anthropologist who has created a virtual reality of an archeological dig in Peru. One is a geography professor who is changing flat maps of the Missouri river and Columbia area into three dimensional maps. One is an English teacher who is creating a virtual reality of Harlem in the 1920s to supplement his teaching of African-American writers of that period and place.

Implications for Truman: Invite them to come and talk at Truman. Frankly, I have seen CD-ROM games that were more impressive. -CL

Tools for Creating and Managing Interactive Web-Based Learning

(Robert Godwin-Jones, Virginia Commonwealth University; Duncan Lennox, WBT Systems).

<http://madduck.mmd.vcu.edu/wcb/wcb.html>

<http://www.wbtssystem.com/>

Web-in-a-Box and Top Class, two web editors for creating course materials like: syllabus, assignments, text were demonstrated.

Implications for Truman: If you can pass the Missouri Drivers Test, you can use either one of these products. Carol Race has Web-in-a-Box and just needs some people who want to use it. -CL [It is likely that many faculty and staff (and students) would use this product if (a) the product were mounted on the university server, (b) faculty were made aware of it, and (c) they were provided some basic directions -GJ]

A demonstration/discussion of Web Course in a Box and Top Class, two products which essentially allow faculty members to create and maintain web pages through the use of forms and a web browser. These products also allow and maintain discussion sessions and interactive testing. *The use of either one of these products would empower faculty to use the WWW without extensive training in HTML. -CR*

New Strategies for Learningware Development: The NLII Perspective

(Carol Twigg, Vice President-EDUCOM).

A national EDUCOM committee, National Learning Infrastructure Initiative (NLII), is looking at ways to use technology to provide a new form of learning that is interactive, dynamic and like nothing we have ever seen before.

Implications for Truman: Try to foster innovative uses of technology - particularly with regard to reaching non-traditional students. -CL

Doing History in a New Key: From Archives to the Internet

(Larenda Twigg—Gettysburg College).

Used in part to promote the use of primary documents in history. To accomplish this, worked on placing Gettysburg historic documents on the Internet as well as contacting other

sources for the inclusion of materials. Students had to learn html and place this information on a website. Promoted closer collaboration with the University of Virginia and student work generally improved due to the “public” presence of this work on the Internet.

Truman impact: Provides an access point for our students. Valuable means of sharing rare, hard to obtain information. May want to place more of our special collections on the web. -AR

<http://www.gettysburg.edu/~mbirkner/fys120/homefront.html>

<http://www.gettysburg.edu/~mbirkner/his300/shadow.html>

Promoting Active Learning--Use of Web to Teach Music Appreciation

Illustration of distance learning using the WWW, e-mail, chat, and on-line discussion as well as CD's for personal listening to teach a core course in music appreciation. *Although we value face-to-face teaching at Truman some of the ideas in this presentation could be implemented in several classes. Some class materials or activities could be shifted to outside class time. It appeared to be an excellent forum for discussion and thought. -CR*

Bringing the Newsroom into the Classroom via the Internet

(10/30, 5:00, Linda Crider and Dennis Walsh, Miami University).

“Webbing the Presses” [plus handout]

We are moving away from the pedagogical model of teacher as fount of knowledge to a more participatory learning model—the teacher as guide and facilitator (although the teacher is still central).

Challenge: How to create interactivity for newspapers on line—how to handle all the electronic feedback. Newspapers have traditionally been the agent of information; what are the implications of greater reader ‘participation.’ There is an analogy to the situation of the university—universities no longer have sole proprietorship of the information; much information is diffused and more generally accessible. How to adjust to this?

Another aspect is economic. More than 50% of many newspapers’ income derives from classifieds. This will change; classifieds will go on line (and the entrepreneur does not have to be local). Even a 20% loss of classified ad income would “cripple” the newspaper industry. Online media management will be a huge field in the future. Disciplinary walls will break down. Journalism education needs to put greater emphasis on connecting research and fact-finding to the actual practice of putting out a newspaper; The continuing expansion of sources and resources available on the Internet will serve to exacerbate this need. “Hypertext thinking” model (links and concept nesting)--most of the theory, such as it is, comes from literary theory.

Some references; handout

Development and Design

Achieving Critical Mass: Strategies for Integrating Technologies in Education

(Presented by Russell Van Wyk and Kathy Thomas, UNC; 10/29, 3:30).

The provost at the University of North Carolina at Chapel Hill made available to faculty and departments \$4 million over two years (with probably renewal next year for a similar amount) for integrating technologies in undergraduate education. There was a total of 55 awards, ranging in amounts from several thousand to \$150,000—the departmental maximum. Last year only a few departments were ready, so most went to individual applicants. This year there was a noticeable maturation of departments [quantity and quality of proposals], so only about 30% of the \$2 million went to individuals. This was regarded as a desirable evolution, as money allocated to departments should result in projects perhaps more easily and widely diffused, with less threat of duplication or ‘re-invention of the wheel.’ To further facilitate development and reduce replication, departments [are encouraged] to look outside themselves at what others have done and are doing—both system (university) wide and nation wide. A certain minimum percentage of --will continue to be guaranteed to individual applicants (assuming continued university support).

The emphasis to date has been on integrating technology into the undergraduate skills courses (introductory writing, math, etc.).

The administrative unit set up to distribute funds offers support at three levels: introductory, continuing, and advanced. Introductory support at UNC is embodied in a program called ‘Simple Start.’ Its purpose is to support the use of internet technology in four areas: listserves, e-mail, the web, and discussion forums. A “boot camp” for faculty who were new users was established at which participants were given a hands-on introduction to each of the four areas of internet usage.

The administrative unit also hires, trains, manages and manages one graduate student for each participating academic department. The actual wages of this graduate student are paid for by the respective departments. These facilitators work about 10-15 hours per week. This operational model, the presenters stated, was ‘scalable.’ It was noted that the Simple Start project also helps direct participants towards outside funding sources—especially for any necessary maintenance of projects.

Challenges:” a. The question of copyright; b. How to provide meaningful support for the ‘trailblazers’; c. The continued lack of a ‘one-stop shop’; d. Multimedia learning and the question of assessment (and “yes, this is about pedagogy, not just technology”); e. The process of weaning departments away from dependence upon elementary technical support

This model basically reflects a top-down approach to technology integration. In this connection, two final points: a. Start with easy tools, b. Integrate with a bottom-up approach; that is, encourage departments to train key (and knowledgeable) people to aid in the diffusion process.

On the question of web page standards: It was strongly suggested that the administration not mandate details of page style. The resultant creativity and interest is probably worth the trade-off in lack of consistency and design flaws. That said, an organization might distinguish between *technical* standards and *design* standards and establish some basic

web page technical standards, such as: 600 pixels wide; include a contact name and e-mail address; encourage consistent use of color regarding text, background, and links; encourage sensitivity to load times.

References: Syllabus magazine (Oct. Or Nov. Issue). Note:

<http://www.ctl.wsu.edu/research/top-flashlight/>

<http://www.webpagesthatsuck.com/>

The presenters made several points I believe to be relevant. One is that many schools employ a top down approach to technology use. This approach has not been an effective means of implementing technology use by faculty. While faculty are encouraged to pursue technology use in the classroom experience, the message is muddled by the realities of publication requirements. *The message needs to be clear and consistent.* The results of the presenters' experiences with language skills classes also failed. The failure was attributed to variations in teaching methods of the graduate students teaching the course. It was suggested that commercially available software will enhance the learning experience instead of custom made software.

To improve the use of technology the faculty needed to develop basic skills. Workshops were used to improve skills. Once basic skills are improved, peer mentoring can happen more often. -MB

Faculty Modeling of Life-Long Learning

(Egonda Onyejekwe—Ohio State University).

Faculty must relearn to continuously learn. Faculty learn by doing and develop creativity in teaching a scholarly activity. Faculty can learn at any level, but there are needs for universalized technologically-enhanced instruction, student-centered learning, and a natural balance in rewards for faculty. Need to develop faculty through active learning by getting them to commit to ongoing training.

Truman impact: Assess faculty by more than publication. Examine teaching and mentoring as important facets of the profession. Provide time/class reduction for the technical development of faculty. Provide opportunities for faculty to work on technical enhancement. -AR

http://www-best.uts.ohio-state.edu/best_practices/events/events.html#educum

Evaluating Web Tools for Course Management

(Mike Nowak, U-M Instructional Environment, University of Michigan; Marilynne W. Stout, Senior Instructional Designer, Education Technology Services, Pennsylvania State University).

Thirteen universities in the CIC (Committee on Institutional Cooperation,

<http://cedar.cic.net/cic/>

joined to collect and evaluate Web-based course management tools such as the IAT's "Course in a Box", and the

➤ University of Virginia's "Faculty Tool Kit"

The tools were examined using categories including management, authoring, and security. The session was disappointing because rather than giving results of the study, the

presenters went over reasons why no one tool will meet everyone's needs and why each institution needs to do its own study to meet its own needs. However, some additional material on web course tools is available at University of Michigan Instructional Environment's page at

<http://www.umie.umich.edu/>

A side issue which came up and which had thorny ramifications is the issue of privacy in which a student requests the information be withheld according to FERPA, which is difficult or impossible in a class which requires participation in a web-based course or conference. (See related FERPA session report).

The lessons for Truman are that:

1. *Many schools are grappling with the problem of selecting a good set of web course tools, not just Truman.*
2. *We will be unlikely at this point to find a single toolset which meets all of our needs.*
3. *No tools are so "simple and intuitive" that they require no training. To effectively use any tool, simple or complex, requires Faculty Development support. Faculty especially need help building good designs which account for administrative issues such as privacy requests. -JB*

Assisting Faculty With IT as They Develop Course Materials

(Presented by A. Duin, & E. Nater, the University of Minnesota; and N. O'Neill, Georgia State University).

The emphasis of this presentation was to discuss how these particular universities were able to help faculty members use technology in the classroom setting. Faculty attitude and opportunity need to be addressed for successful incorporation of technology. Are faculty teaching for the future, or the past? School based research appears to improve faculty use of technology. The key seems to be to find what will *cause* change—a technology fee for example. The "production paradox" was also discussed. This concept is based on the fact that *faculty producing technology-based material from the ground up face too much work for it to be practical. Faculty should be encouraged to use procedures already known to work. There is also a need to prove that classroom technology use has a compelling value for learning. Especially beyond the "bells and whistles" instructional value. -MB*

Collaboration as Key Strategy for Change: Teaching Assistant Web Project

Details of a project done at the University of Minnesota Digital Media Center dealing with course web sites. Teaching assistants, sponsored by faculty members were provided with design and technical support and asked to create web sites which supported a particular course. A contest was sponsored. Many of the tutorial materials are available on the web.

<http://www.umn.edu/dmc/portforlio/ta/ta.shtml>

Model could be used for faculty development. -CR

[for a discussion on how to overcome faculty resistance to teaching style change, note

<http://.uky.edu/~claire/resist.html>

Electronic Classrooms: Are We Ready to Throw Away the Chalk?

(Diane Keller, Director of Academic Computing, Union College; Scott Siddall, Director of Academic Computing Kenyon College; David Smallen, Director of Information Technology Services and Institutional Research Hamilton College).

A discussion on the emerging role and use of electronic classrooms at Liberal Arts colleges. The panelists related the use of electronic classrooms at their institutions. Truman is in exactly the same place as the majority of institutions; we're all grappling with exactly the same issues in terms of instructional technology. For example, Union College had no electronic classrooms whatsoever on campus two years ago, was given a grant by Olin Corp to build a new teaching technology building to go online September, 1998. The similarities to Violette Hall are dramatic: \$9 million for a building with 9 computer classrooms, 1 full multimedia auditorium, all disciplines expected to teach in it. Union has been scrambling in the past two years to experiment with electronic classrooms to inform the process of building and equipping the new building.

There was some discussion about fine points of equipping computer classrooms. All of the ideas have surfaced at Truman in various forums. *The only idea that sounded good that I hadn't heard was a single switch at the instructor's station which turned off all student computer monitors in the room.* This has two huge advantages: 1) allows the instructor to keep the students from playing when they're supposed to be paying attention to the front of the room, and 2) makes it extremely simple to turn off all the monitors to save power at the end of the day and turn them back on the next morning, even if the computers themselves need to stay on for automated remote management overnight.

Lessons for Truman: all of the technology proposed for Violette Hall appears to be right in line with what other schools are doing. -JB

Both universities developed initial forays into the development of an electronic classroom. Spoke about problems, results, and overall success of this process. Promoted collaboration between institutions, with a varying degrees of complexity. Stressed flexibility rather than beauty in design. Worked in a policy of experimentation which provided the faculty with an opportunity to explore the various uses of the electronic classroom. Cost effective, yet cautioned that bad teaching translated into bad television.

Truman impact: Distance Learning classroom could facilitate greater interaction with other regional colleges/universities. Could be particularly beneficial for instruction in rare languages. -AR

No web site available.

Using a Collaborative Process for Designing and Supporting High-Tech Classrooms

(Sue Clabaugh, University of Maryland).

TAPE AVAILABLE FOR THIS SESSION. Call Carol Lockhart x7417.

3 lecture halls and 14 small classrooms (25-32 capacity) were designed and equipped. Many diverse segments of the campus were included in the planning so that all might be satisfied with the results.

Implications for Truman: This was by far the most organized and thorough session I attended. It was loaded with practical details concerning electronic classroom design. [see Carol for details] –CL

A Case Study at the University of Maryland dealing with an interdepartmental approach to design and support of hi-tech classrooms. It was interesting because it also dealt with problems encountered, particularly in the purchasing area and how some vendors protested and held up the process.

Some of the basic outcomes of their discussions were:

- Support staff for these facilities is crucial.

- Standardize, whenever possible, on equipment and interface

- Make everything easy to use

- Design the equipment rack/closet for expansion

- Make sure the control system is software based

- Have a security system with programmable locks which use the university id

- Have auxiliary input panels in the front of the room

Useful discussion which pertains to the process Truman is currently going through with the design of technology classrooms in several buildings. -CR

JSTOR: Progress toward the Digital Library

(Ira H. Fuchs - Princeton U. VP for Computing and Information Technology).

JSTOR is a digital database that contains 25 scholarly journals, but it will increase to 100 important journals in 10-15 fields. It is full text and will include links in footnotes. It includes all of the journal, advertisements, table of contents, etc. This database will only come within 3 to 5 years of the current date in order to avoid conflict with the publisher. JSTOR does not save shelf space, but it does fill gaps in collections and provide great access to older materials.

Truman impact: Depending on the journals, this could be a beneficial source for our campus by providing a complete run in important journal titles. It would also provide better access to the materials we already own. -AR

<http://www.jstor.org/>

Digital Multimedia Libraries in Higher Education

(Stephen Zvolner, Joe Fitzharris—U. of St. Thomas).

Digital libraries can enrich classroom learning because it assembles quality information which is readily accessible anytime, anyplace. It supports a constructivist learning style as students create their own pathways through information. Discussed the development of their class through the use of search capabilities, streaming video, and descriptor terms assigned to index images. All provides better access to fact materials.

Truman impact: Streaming video is interesting. The digital classroom could be beneficial for the promotion of learning. –AR

<http://milkweed.econ.stthomas.edu/~history?Educom>

Collaboration as Key Strategy for Change: Teaching Assistant Web Project

(Linda Jorn, Kay Kane—U. of Minnesota).

Project developed to encourage TAs to use the web for instruction. Developed 200 course websites, provided template for syllabus. In 3 hour class taught overview of 5 step process used to design websites and informed the TAs about UM computer policy and copyright.

Also offered 6 hours of html training. Supported TAs through consultation and promoted projects through a contest.

Truman impact: Idea of template for course syllabus online would be useful. Provide faculty development and promote faculty use of the Internet. -AR

<http://www.umn.edu/dmc/portfolio/ta/ta.shtml>

Library Online Basic Orientation (LOBO) Project

(Melinda F. Brown, North Carolina State University Libraries).

<http://sirius.lib.ncsu.edu/lobo/present>

A basic library orientation course has been designed for the Web. It is self-paced and non-credit.

Implications for Truman: We could do this BETTER. We would need to make it count for credit and be linked to a course with some content like English. -CL

Carnegie-Mellon's CSW On-line Web-Based Computing Competency Education

(Chris Thyberg, formerly of Carnegie-Mellon University).

<http://www.csw.cmu.edu/online>

This is a totally web-based pass/fail required course for all Carnegie-Mellon students. It does not count on their transcripts. They hate it and only 14% of the students pass it on their first try. Many interesting details concerning course design and authentication of who is taking the course were discussed.

Implications for Truman: Don't do this, except if we can make it count on the transcript and link it to a course with some content. -CL

Ubiquitous Laptop Computing at Wake Forest University: What? Why? How?

(David G. Brown, Phoda Channing, Lynda M. Goff, Wake Forest University).

TAPE AVAILABLE FOR THIS SESSION. Call Richard Coughlin x4038.

<http://www.wfu.edu/~brown>

All Freshmen were sent an IBM Thinkpad 380D laptop computer before coming to college. Tuition was raised \$3000. Details which made the project a success were: training for students, faculty and staff; network wiring everywhere but the bathrooms; consensus concerning what should be loaded on to the computers the students received.

Implications for Truman: Innovative uses of support staff, advantages of standardization of equipment; practical considerations for use and maintenance of laptops. -CL

A Financial and Planning Model for Technology Classrooms

(Dr. Beverly Teach, Director of Media Resources, Indiana University-Bloomington; Dr. Gary Wittlich, Associate Dean, Office of the Vice President for Information Technology Resources, Indiana University-Bloomington).

Indiana University-Bloomington uses a responsibility center management budget process. They have built a model for paying for technology classrooms based on RCM. In this system each academic unit is a cost center and non-academic units are allocated to cost centers via taxation within the institution.

The talk did not seem to have much relevance to Truman, as most of it was in terms of their specific budget process which is nothing like ours. Also, with 34,000 students, their scale is much different.

Lessons for Truman came mostly in unrelated nuggets of information, such as:

- *IU uses almost identical classifications of type of computer classrooms as we are using in planning for Violette Hall, from no-tech to high-tech.*
- *A previous design paradigm was that the larger the classroom, the higher the tech, seeking to maximize student exposure to a high-tech room. This model does not work well, as big rooms are used very differently than small rooms, and they're working to put higher tech stuff into small classrooms.*
- *Their estimated cost to turn a regular classroom into a high-tech classroom is \$40 per square foot, campus-wide. -JB*

NLII Instructional Management System and Open Specification for Distributed Learning Environments

(Mark Resmer, Sonoma State University).

A national EDUCOM committee that is working with the White House and the Department of Defense to standardize the technical aspects of learningware. (This reminded me of the AACR2 project in libraries). Producers of learningware, whether web-based or CD-ROM will be able to catalog their learningware according to METADATA standards to be distributed on the Web in March. Search engines will be able to index with the METADATA standards. The standards will be voluntary.

Implications for Truman: We will be able to find useful information on the Web. Publishers of learningware will be able to sell to any users who implement the standards. Learningware will work across platforms. -CL

Administration and Documentation

“Making a Silk Purse Out of a Sow’s Ear: Organizing a University Web Site in

(Presented by Travis Linn and Carol Parkhurst, University of Nevada, Reno;10/29, 5:00).

“A university ‘web management team’ is working to bring order and consistency to the university’s web presence, without offending previously autonomous developers.”

The university’s web presence developed from the ‘bottom up.’ But the tacit “let-a-thousand-flowers-bloom” approach resulted in a lack of consistency that the administration established a Campus-Wide Information Resources committee to address the problem. This small group, including an associate vice president and the director of computing, tried to set web page standards; the committee was ignored. The university, acknowledging the failure, then took a different tact by establishing a ‘self-directed work group,’ which was charged with providing technical support and establishing some general web page guidelines. Strategies for the university-maintained pages consisted of: 1. *Suggested site redesign (make it navigable, graphically attractive, and quick loading)*; 2. *Site reorganization (consider academics, and include considerations of prospective students); provide a functional organization; make it searchable* [ended up with seven categories: see website]; 3. *Got rid of the rules; only two requirements remain: provide a link to the university home page, and identify who is maintaining the web page; web page styleguide was disseminated (recommendations only)*; 4. *A web developers group was established—essentially anybody interested--(informal, supportive, information-sharing, with the goal of developing a sense of community and coherence), [send out meeting notes afterwards]*; 5. *Training (faculty development lab—see site; includes web page instructions)*; 6. *Informal policy group established*

Remaining challenges: coverage; quality; currency; consistency.

Recently, UN, Reno has hired some knowledgeable students to help.

In the near future, the university web site plans to serve as provider of one central source of job postings (must coordinate with Personnel and the EEOC people).

One suggestion: Have the primary pages of the different divisions reflect common design principles—and have them reflect some of the design characteristics of admissions materials. -GJ

References:

ADA Resource Assistance:

<http://www.libraries.wright.edu/libnet/subj/dis/>

Note also:

<http://istpub.berkeley.edu:4201/bcc/Summer97/info.webpol.html>

<http://www.drweb.com/>

<http://www.raspberrymill.com/>

<http://www.unr.edu/stylegui.html>

<http://www.unr.edu/>

These presenters explained their successes and failures in developing a university website. Several points seemed relevant. The presenters emphasized that the use of a “style guide” or policy concerning specific web page characteristics was a mistake. The web page designers would ignore the over-policing style of the committee. They did, however, have more success using a “web-team”. This was a group of university personnel who volunteered to meet and discuss web page design and characteristics. They did recommend specific policies and strategies to be used in website design. These strategies included aspects of: 1) site redesign when the organization or interface was poor; 2) site reorganization (sites were reorganized by function, taking into account the intended audience); 3) simplification of the “style guide”, *only one requirement—a pointer back to the university home page, but other recommendations were made*; 4) the group remained informal and supportive; 5) *training through the faculty development lab was organized*; and, 6) eventually a policy group may result, this group would be appointed and broaden participation. The biggest problem with an appointed group is the potential for misuse and the perspective of them being the “web-police”. What purpose would the group have? –MB

A General Summary (Michael Bird): Overall, time seemed to be a recurring theme. Faculty members wanting to incorporate technology into the teaching and learning experiences must balance that with the requirements of what is expected for tenure, promotion, and merit. We must rethink the teaching process and use the time we have wisely. Faculty often waste time trying to do too much independently. They should rely on the resources available to them to more effectively integrate technology into the experience of the students. Another recurring theme was resources. Faculty resources such as the Instructional Technology Center, Computer Services, and Faculty Development are essential to the process. As more faculty develop courses with technological materials the burden on all resources (staff and equipment) will increase dramatically. We must plan for how to handle this situation. Peer mentoring may become more structured. Classrooms, laboratories, and dorm rooms will continue to be modified to meet the technological demands of the student, faculty, and staff. –MB

Meeting the Help Desk Challenge: Serving Our Customers and Changing Ourselves

(Sharon Roy, Rensselaer Polytechnic Institute; Kathy Sapko, University of Delaware).

Rensselaer Polytechnic Institute is creating a Computer Center which will include open labs, classrooms, a very visible Help Desk and a computer store. Service should improve. University of Delaware has gone from student support staff to full-time support staff. They use a trouble-ticket system called Remedy to keep track of help desk calls.

Implications for Truman: Perhaps the Truman Help Desk should be very visible and offer help to all faculty, staff and students. -CL

This discussion focused upon the issues surrounding the operation of a successful help desk. I will just list some of the important points of the discussion.

1. It is important to deliver a consistent message to the users.
2. One central location is the best way to cut down on confusion.
3. Customers should not have to learn the bureaucracy of the organization in order to receive help.
4. Let customers know what services are available to them. This might help to cut down on some frustration.
5. You should be proud of the service that you deliver. The help desk should not be located in some “back room”.

6. Hire good help. You can teach computer skills, but it is hard to teach basic communication traits.

Implications for TSU: I believe that it is very apparent that Truman needs to consolidate the support staff that is in place. Sending students to the library lab and faculty to the help desk in McClain does nothing but cause confusion, not to mention the poor quality of support provided for the students by the lab staff. Truman State is disregarding the first five points listed above. I believe that our support system has a lot of room for improvement. -MF

Opportunity Knocks: A Student Preparation Program for IT Employment on Campus

(Cynthia Golden, Director, Educational Technology; and Jason Brown, Manager, Academic Computing, Duquesne University).

To address the “support service crisis” at Duquesne University, the CCIT (Computer Services) significantly increased the number of students employed in an IT service capacity and developed a two-week employment preparation program called “Opportunity Knocks!”

This was for me perhaps the most useful session of the conference, in that the situation described closely parallels Truman and the solution appears likely to transfer almost directly. They described a program started two years ago for recruiting, training, and paying student workers in Computer Services in order to build a more professional student work force. Students are brought in for a two-week training session before school starts to be trained for and compete for jobs, and then have a merit system whereby they advance in pay for good performance and extra training. Two years ago, their student worker setup was just where ours is now. The program has gotten rave reviews.

Lesson for Truman: Computer Services needs to develop and submit a proposal to the administration for a program such as this, to improve the quality of student technology workers. -JB

IDEA--Instructional Design For Educational Applications-

This poster session outline a program of recruiting and teaching freshmen to assist faculty in multimedia production. Essentially the freshmen were paid for a ten week period to learn about interactive design and then were paid consultants in the media center for the next three and one half years. -CR

A Learning Organization Flourishing Through Student Contributions

<http://www.ndsu.nodak.edu/instruct/ross/educom'97/>

This discussion focused upon the role that students play. It was stated that student workers [could we redesignate this valued resource using the term student assistants? – GJ] will most often step up to any challenge that they are presented with. Student workers often do work equivalent to that of the full time employees. Student workers have also been known to develop some of the best solutions to problems. Of course, much of this is directly tied to the quality of students that are hired. It was also noted that a good reputation for an organization will help to attract quality workers. People will be proud to be a part of a quality organization.

The question of training and introduction to the university's computing environment was discussed. One of the other universities had an introductory class such as ours. Many of the other people in the discussion were interested in this idea.

One of the other universities had been giving a survey to their incoming students in an attempt to see what level of experience that had. The institution had been very surprised by the entrance level [knowledge] of their incoming freshmen.

Implications for TSU: I personally know what it is like to be a student worker. We often perform the work of full time employees with little or often no recognition, and I am not just talking about wages. This although almost every other university has some sort of graduated pay scale for the students.

Concerning the idea of conducting a survey of the incoming students, I believe that this would be beneficial for Truman. My idea is to create a simple web form to collect the desired data. This web page would be visited during the students' orientation to web browsing. The page would collect that desired data and show the students one function of the WWW. The data collected could be put into some format that could be easily analyzed [to assess their level of technical knowledge]. I believe that this approach would easily beat any type of paper form. -MF

Transitioning to IMAP4 [e-mail]: Focusing on Client Service

(David Knapke, Consulting Engineer, Innosoft International, Inc.).

IMAP4 is an evolving standard for electronic mail service that is being deployed to supplement or replace POP email in many universities. The session was a discussion of the pros and cons of IMAP vs. POP, and the state of development of IMAP implementations.

Lessons for Truman: At Truman, we've used POP for several years. The advantages of IMAP dictate that we should make the transition to IMAP, but clients and servers are not yet sufficiently developed. We don't want to be on the bleeding edge in a technology such as the school's email, we want it to be stable and solid. In 12 to 16 months, IMAP bears a hard look to see if it's time. Meanwhile, the overwhelming number of schools are still using POP. -JB

Creating an Interactive Learning Experience [Digital Portfolio]

(Digital Storytelling; Adobe Systems, Inc.).

This discussion focused upon the use of multimedia tools for instruction. The example that was demonstrated was the use of multimedia to turn a stack of photos into a multimedia story. Multimedia has tremendous potential in the classroom. My suggestion was to slightly modify the multimedia presentation to display all of the information displayed in a student senior portfolio. I have found out that this is possible in the New Media Center in Pickler.

Implications for TSU: Students have the ability in the New Media Center to compose multimedia works. Carol Race is working with a group of students to develop the best method for composing multimedia portfolios [the Digital Portfolio concept]. -MF

This was a session dealing with using several applications such as PhotoShop and Premiere to create a digital story which could be played from a CD or put out to videotape. There was an extensive discussion of a new type of media literacy centered around knowing how to use many of the tools available today to create individual digital stories. *The techniques used in digital storytelling can be applied to many curricular areas at Truman as well as the portfolio experience. -CR*