

**Beyond PowerPoint and WebCT:  
What the heck is Teaching and Learning with Technology-and  
Is it Consistent with other Educational Goals?**

**Introductions :** The participants were asked to indicate their positions or roles in UNC and to address why they selected this track. Responses:

- Nursing- believe technology should be driving what we are teaching, I need to learn
- Instructional Technology person I need to know how and why we need Technology and how do I use it effectively
- Assoc. Provost – interested in the topic because we need a plan that incorporates distance learning and we are creating an E Learning Center
- Dean of General Studies School of the Arts – I crafted all the C words in the description of this session–I am a new dean with faculty that is working with the reluctant to adapt and the willing to try technology
- NC State Zoology- use some tech, I find the pedagogy part to be more challenging. I have to find new way to teach without just lecturing
- Pembroke- Chemistry and Physics- how to incorporate technology in to my program to make my job easier an effective
- Faculty member involved in 1<sup>st</sup> year composition program wireless pilot project ( use of hand held personal digital assistants), I questions why are we doing this? I need to understand ways to use Tech and help my students.
- Resident Techie: New ways to show how technology is useful and not just defend it.
- Faculty Rep FSU – which courses should be online or not in the nursing program:
- I wear a lot of different hats- mostly centralized - I want to hear about the various layers , which has brought technology to this point.

Question 2: How can we make this work in and out of the classroom? What do we mean by “teaching and learning with technology? How can the use of technology help us achieve our goals? How is the use of technology related to other pedagogical tools, like Active learning and Service learning?

How is technology currently being used in the teaching and learning process?

- There seem to be such a strong emphasis on WITH TECHNOLOGY why not teaching and learning with CHALK.
- Integrating Distance learning is just another method of delivery
- Collaboration, communication, helps get the values of the use of technology in.
- New tools for learning, like video, java, simulations
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**What gets lost in the use of technology?**

- Technology puts too much emphasis on the goal of using technology.
- The best technology is one that you don't notice if it works and doesn't take ten years to learn.
- Tech gets more emphasis more than is necessary. It gets too much airplay.
- People with vested interest influence where funds flow and not a lot of thought about how we are going to use the technology.

- the cart is before the horse.
- For example, a company made a donation of a lot of software to one institution, and we now have to re-invent the wheel to use it.
- My mode of teaching is no longer effective- requires the changes in one's practices  
There is an attitudinal problem, am I going to have to change something I thought I knew.
- Marketability in higher education is forcing us to change to ensure what we provide meets the needs of our students.

### **Are the students different? If YES how do we address that?**

- Growing expectation for me as a faculty member, I need to be using technology. I have to have a web site. They should tell you why you need the Web site--- But I still have to have a website. I can go out and give a student an assignment, he doesn't have to know how use a web page to get the assignment.
- The students maybe wired but they resist using it to learn, to get them to learn outside the classroom, to build their curiosity to get them excited to learn
- Those are the same issues we use when we teach traditionally. I'm using technology to snazzy up the way I teach.
- The students see distance learning as being cheaper because they don't have to leave their home.

### **Economist would say that the marginal cost exceeds the marginal benefits in using technology in teaching and learning. How do we increase the benefits, the cognitive learning? How do you increase the benefits to meet the ever increasing cost?**

- We get training on how to use Blackboard, Dreamweaver, and other software packages that would eventually make the use of technology easier.
- We need to provide a clearer understanding of why are we doing this and communicate it to faculty.
- Some have changed, because they are interested in the technology, others because they are risk takers. We have to recognize that there are many reasons why faculty may not use it and we have to deal with the different reasons separately. For example, poorer institutions and or poorer departments don't even have the resources for the equipment.
- The faculty doesn't have to be intimidated by technology. They have to realize that when it is complicated you must invest the time and energy to learn it and to implement it.
- Get the faculty together to discuss what they feel works, their difficulties. Some faculty members will never use or implement the tech. Assess it to ensure they are using it and how it is implemented and what is useful and isn't.
- External forces (administration,) have to be involved, to either "give orders or to make certain the resources are found.
- Chalk is cheaper-- If technology is so great then why isn't it everyone using it
- Students think that Web-based courses are fun at first, when it was new it was fun. But now they say we have to look up all those sites, that's a lot of work.
- A lot of teaching is being enhanced with lots of forms of technology, to allow students to learn in a less linear fashion. Some faculty create a course with the essential paths

to resources, but then allows the student integrate them with their own interests in their assignments. We can take literature full of hyper links, laws and treaties information, etc. That style of learning requires more of students.

- We need to think about prerequisite skills that are necessary . Technology can be great as long as it can be used. Example: To upgrade the skills of chicken inspectors (with GED's), the government sends them CD-ROMs to teach them about the new practices and regulations to upgrade their skills. Unfortunately, and they don't know how to use the computer.
- Some of us see that it breaks down time and space where as other can't see how it breaks down the time and space through the use of distance learning and asynchronous learning.
- The hard things are still hard to teach, they are still there, and technology doesn't ease those areas.
- Some colleagues are using it poorly, just putting their notes on line, but still giving the lectures in class. They don't realize that the lecture notes on line allow the students to focus on the material so that they can actively engage the material in class. We have to rethink the way we teach. I gave up my wonderful PowerPoint slides for class and went back to class scenarios.
- COST ten years from now if it works we will consider it an investment if not we will see it as a liability
- Many of us have not successfully integrated technology into our teaching. Part of the confusion is when we say teaching and learning, there has been computer technology on campus for years.

**We are experiencing a mind shift; we used to go to a certain place to access information, now you don't have to go anywhere to get information. IT is everywhere. What does that mean to our work?**

- We are not educating factory workers now. We are educating students for the Information age\_ as problem solvers. The bottom line is our ability to the job done.
- A university should not lean toward just getting students trained for specific careers. Where will the big ideas come from for society over the next hundred years? Does "I've learned a lot" mean I got lots of content information, I know where to find info, I know how to choose to use it and synthesize it?
- What knowledge means is on shifting sands. A lot of what is called information is just a bunch of BS.
- Students seem to have missed something, how to evaluate what is good information, there is so much to sift through. If information came online then it must be right? Sony.com is trying to sell the music not try to tell you the truth or the actual facts.
- Information overload has not helped them to develop the discipline they need so they can detect an actual fact.
- When you have the spell check why do you need to know how to spell? If you don't know how words work or how numbers work you are just waiting on a computer to do it for you. Is it still a skill that is necessary?

**What is TLT? What should it be? Getting Back to the original question:**

- That's a joke about pornography.
- I think we did some teaching and learning in this room with low technology.
- Provoked us to rethink teaching and learning, a whole rethinking of pedagogy, similar to the impact of earlier innovations, like printing press: see the Book: The Printing Press As Agent Of Change In Early Social Change In Europe . Einstein is the author

**Let's try to define it, either separately or all the terms together:**

**Teaching:**

**Learning:**

**Technology:**

- If we really defined T and L , then T become a tool
- We all buy into a different philosophy of learning so we embrace technology differently.
- A scientist in the group asks, "what is TLT – what am I going to do about it and why? It is the active facilitation of learning; creating an environment where learning can occur. Learning is Cognitive, behavioral, affective, social, emotional, transformation of information into knowledge; so Technology is a tool to accomplish facilitate teaching and learning. Teachers will use it to teach / students will use it for learning.
- Color chalk was exciting my day and now I want to see a PowerPoint presentation. The PowerPoint is no better than chalk; it is how you use it! Sometimes the tool tends to dictate or change what we are trying to get across. Does the tool help me effectively get the job done? If every learning situation looks the same, we use PowerPoint for every class, how do we stimulate the student, if everything looks the same. Is there a difference?
- Think about the teaching process. Technology forces you to think about the teaching process. Is it information transmission? Or is it the active encountering of information and you want them to play with it ( For example, in science we look for commonalities)
- How you use the technology is what matters.
- Matching the tool with the teaching & learning objective.
- Results drive what technology should be used.
- We need to determine the teaching & learning objectives first.
- A live recording is different, from an actual stage presentation.
- A written version is different from one with a hyper link with picture pop-ups.

**Assessment**

- Now that you have used it, assess it to see if we achieve what we set out to achieve.

- We need continual assessment of results with respect to the use of technology.

If we set up this condition, implement it, then test your results, and use the result to analyze our teaching, this is how we determine if it is effective:

**Summary :** We have said that it is not technology itself that is important, but how we use it in Teaching and Learning. Let's take a quick look at a typology of uses that was developed by S. Ives to get faculty to think about how technology can be used, as opposed to thinking first about hardware and software:

<b>Technology: A necessary part of Career Preparation</b>
<b>Examples:</b> Nightingale monitoring Systems –Nursing, Instructional Technology courses – Education CAD Programs - Architecture, GIS – Geography, criminal Justice, Political Science and Health
<b>Technology: Enhance Learning</b>
<b>Examples:</b> Foreign Language Lab Activities, Grammar help page, Maple software programs to solve algebraic formulas in different equations.
<b>Technology: Liberal Education</b>
<b>Example:</b> Accessing and assessing information sources, converting the information into knowledge, and communicating via e-mail and other forms of electronic communication.
<b>Technology: Community Building</b>
<b>Examples:</b> used to increase student interaction in small groups or to collaborate in-group problem solving.
<b>Technology: Class management</b>
<b>Example:</b> Test scoring, grade calculations, student progress reports, development of test, question banks, supplemental tutorials, and/or formative learning activities.
<b>Technology: Distant Learning</b>
<b>Example:</b> Provide materials and other learning activities to students off campus through video, web-based courses, television, etc.