Session C: Distance Learning Efforts: Online Resources for Entrepreneurship Educators

Date: Friday, October 26th 2001
1:45—3:00 pm

Session Leaders: Katherine Emery, Stanford Technology Ventures Program

Notes:

The session was arranged so that individuals were paired at their tables with people they do not work with, in order to facilitate interaction during this session.

The objective of this session is to introduce you to on-line resources for your programs, covering distance learning, distributed learning, and beyond.

Introduction: Katherine Emery was brought on-board for the Teaching Resources for Entrepreneurship Education initiative at Stanford, following her MA in Learning Design and Technology at the Stanford School of Education.

Main Session Goals: 1) Learn that online resources can help transform instructional processes and learning environments. 2) Facilitate collaboration with colleagues  3) Learn from the experience of others.

What are your methods for teaching entrepreneurship to engineers?

Participants were asked to address the above question, and the responses were noted by Emery on an easel chart. The contributions are noted below with the name of people who provided them, if possible:

Morris: Lectures, Case Study, Experiential Learning
Byers: Role Playing
    Projects at real companies
Rice: Interaction with Role Models
Issacs: Connections: case studies with the person profiled (hybrid)
    “Sink or swim”
    Team problem solving
    Concept to context
Rice: “divergent thinking”
Michol: “real-simulations” – using teams of engineers and others
    Business-plan competitions
    Student presentation
    Dilemmas and debates
Rice: in-class projects versus in-house projects with a company
Kosnik: cross-cultural cross-university international project team

The reason to do this type of assessment of methods is to understand who the audience is—before determining how technology makes sense. For example, in designing discussion forums, one needs to understand how they are to be used.
The idea of distance learning is to bridge the instructional gap. Distance is a relative term, however. Distance learning can be mediated by postal mail and/or through electronic means, for example.

A model of distance learning may be “distributed learning” – focusing on the social processes of learning. The “social activity of discussion” is where learning occurs.

Today students are pulling information as opposed to having information pushed onto them. Students are able to look for information through networks and through each other. In the years to come, distance learning itself may not be a particular topic—it will just be part of the discussion.

As Fred Hurst of Northern Arizona University has said: “(insert quote here)” We should note that there are collaboration tools and classroom management tools. Additionally, there is content (case studies, videos, discussions, course outlines, etc.)

**Exercise on Collaboration Tools, Classroom Management Tools, and Content**

Blue sticky squares used to capture personal experience; yellow sticky squares used to capture what one would like to learn more about.

Cook first raised some concerns on how technology can keep up with demand, and this question will be addressed after we gather input. More background explanation was given, and then the stickies were gathered on mounted wall posters covering the following sub-topics:

**Collaboration Tools**
- Videoconference (e.g. NetMeeting, WebEx)
- Discussion Forums
- E-mail
- Newsgroups
- Chat (e.g. ICQ, Instant Messaging)
- Shared workspace

**Course Management**
- Registration
- Calendar
- Announcements
- Polling
- Assessment

**Online Content**

*Discussion:*

To begin with, Tom Mason mentioned how broad the use of technology appears to be in general. Emery guided the assembled group into a discussion of some of the main online tools and content, in the following order:
Chat (e.g. ICQ, Instant Messaging)
Four people had experience using “Chat” type online discussion. Tom Mason felt there would be a lot of resistance to this way of communicating. Byers was interested in who had Chat working in their courses, as he has had trouble doing it. Mishra at Kansas had used Chat to match students and expert, noting that the beauty is that the history is created, and he felt it worked quite well. He believes it was done under WebCT. Streeter mentioned that by observing her own children, she sees that young adults are now used to communicating this way. Another person mentioned that the people who can type the fastest tend to dominate the discussion, a disadvantage.

Centra Software’s product, with a moderator in place, has been useful for one participant. Rice mentioned that Centra and LearnLink are leading the pack in this technology; he has seen examples with up to 50 people in the classroom and 75 people around the country use this well.

LearnLink was an RPI spin-out, mentioned Rice, and it is real-time audio and video where the instructor can call on people at a distance in its high-end form. The technology is way-ahead of Rice’s experience of educators in using it.

Videoconferencing
How do you incorporate videoconferencing? Isaacs mentioned that the concern at Berkeley is “how much are we downgrading the experience by the use of video?” Reid asked, “is the classroom the gold standard?” to which Emery replied, “not necessarily.”

Rice reflected that in engineering there was little learning going on in engineering lectures at the undergraduate level—in stead the learning was in solving problem sets, in recitation. Rice would argue that video could work just as well for some of this content, but case-based teaching is challenged when not face-to-face. The challenge is which type of environment for what type of learning for what type of people.

Dorf mentioned that effectiveness of different delivery systems can depend upon the size of the class. Another participant struggles with videoconferencing in any context, while Wong mentioned it has been best in Singapore to gain access to speakers who would otherwise not be available.

What are the infrastructure requirements? Wong mentioned the benefits of voice-activated cameras in the classroom. A combination of presentation, discussion, and case study was most effective for a videoconference course presented at RPI, Rice reported. This was a PictureTel technology. Mason has used a six-line video system at Rose-Hulman, but he is interested in knowing more about computer-based systems as his students often travel and have their laptops with them, but they would not have access to fixed PictureTel or similar systems.

One participant mentioned he lines up outside speakers and uses videoconferencing quite a bit in his program, and that the real success is driven by having a top technical team to run the system (even if an older video system).

Newsgroups
What is a newsgroup? How does it differ from chat? Emery described how chat is communication in real time, where newsgroups accumulate content over time. Usually
newsgroups are open to subscription, where as chat facilities are more closed to specific participants. Dale described how he prefers to follow student’s use of technology rather than push it on them.

**Classroom Management Systems**

**Polling and Assessment**

Kosnik would like to be able to mix students (local and remote) in their polling for real-time decisions within his courses—such as like in the game show “Who Wants to be a Millionaire?” The technology has been too expensive to implement, so he would be interested in something simple and cost-effective for quick polling.

Part of the “Blackboard” classroom management system may offer some aspects of this—but it is a post in advance system. A suggestion was made that Jornada wireless products might be able to support polling systems. Another participant mentioned that a colleague had used Palm Pilots to gather polling information in real time.

Kosnik mentioned that the difference between anonymous polling and raising of hands is significant especially in cross-cultural environments: anonymous polling can help to ease unbiased participation of certain students.

**Online Content**

What are you looking for on-line? Mason would like to be able to send students to known content providers to get reliable information on topics such as marketing plans, for those students involved in case studies or projects. Cook mentioned a difficulty he has in providing content using things such as spreadsheets because the technology does not support the resolution—so he is not certain how to know what to plan to do. Wong mentioned the challenge of editing online information down to management length—others mentioned similar problems with streaming presentations.

At Cornell, Streeter mentioned they have been working on making edited digital available easy to use for some time, and it is indeed a problem. The key will be to figuring out how to index all the material that is potentially available. Emery mentioned that a product called “Verage” (sp?) is being used at STVP to code digital video for searching purposes. Dorf wondered if DVD mailings might work better for some students, due to online bandwidth issues, and since many students have access to DVD players in their computers or in their home.

One participant mentioned that subjects such as accounting could lend themselves to online education—freeing up resources for the case-study courses that benefit from face-to-face or other delivery systems. Byers mentioned that Harvard has an online accounting course that is “first generation” and not particularly recommended right now, but it may point a way toward the future delivery of this type of content.

**STVP Educator’s Corner**

In January, STVP received a research grant to develop and promote on-line resources for entrepreneurship educators. This effort has begun with the redesigned STVP website (http://stvp.stanford.edu) including an educator’s corner. This corner includes material from the STVP Thought Leaders Seminar and seeks to incorporate other materials, such as the video lectures from Cornell and various other programs.
Wong asked how intellectual property issues are handled. If a speaker gives the right to be videotaped, how does this extend to online education? Emery mentioned that this is an issue that STVP is also working to address.

**Closing and Online forum**

The session came to a close, and Emery thanked the audience for their ideas and wide participation. She also mentioned that ongoing discussion of these ideas can be pursued through an online forum, located at: [http://panfora.stanford.edu/REEE](http://panfora.stanford.edu/REEE)

*Notes taken by Victor Seidel, Stanford University.*