

Instructional Technology with a Human Face.

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University of Massachusetts Amherst

Resource Economics 112, Spring 2008

Computing: Foundations to Frontiers

Objectives

- ❑ Maintain quality as enrollment goes from 37–111
- ❑ Successfully use service learning in a large class
- ❑ Encourage students to engage more deeply
- ❑ Increase relevance to students
- ❑ Better accommodate different learning styles
- ❑ Get to know students better as individual learners
- ❑ Maintain project-orientation

Do a better job with more students and have more fun!

Summary

I chose technologies precisely to humanize the learning experience of an IT course underway this semester.

Many of the technologies have proved promising and sustainable. However, the tool assessments below are dependent on the context and how the tools are used.

I encourage you to ask me more about these details; I'm happy to show you demonstrations or chat about your circumstances.



↪ The Context ↩

The Course

- Prereq. for IT Minor & Resource Economics
- IT Fluency
 - Skills, Concepts, and Capabilities
 - Database theory, modeling processes, object oriented environments, needs assessment, design, current tools.
- 15 years ago
 - skills oriented—easy to teach/learn
 - students motivated.
- Now
 - concepts and capabilities—harder to teach/learn
 - students need to be convinced.
- Service Learning: 3 projects in Holyoke

The Students

- 36 last semester, 74 this semester, 111 in the fall
- 95% required to take course
- 64% would *not* have taken class otherwise
- 20% want to “just coast through the course”
- Mostly Juniors, followed by Seniors
- 75% did *not* vote in primaries—hmmm.

but...

- 89% said they valued “real-world learning”
- They are a great bunch of students

The Classroom

- ❑ 37 students at a time
- ❑ Wonderful space, but designed for economics experiments
- ❑ Hard to see students in class due to partitions





↙ The Technologies ↘

Student Journals

□ Description

Students wrote journal entries about once a week, often in response to my prompts. 15-25% of grade.

□ Motivation

Incentive for students to take reflect and ownership of their learning, take advantage of “optional” resources, and communicate with me about their experiences.

□ Analysis

Most students do a great job with writing and do more work outside of class. It has strengthened the relationships I have with students. SPARK is cumbersome to use.

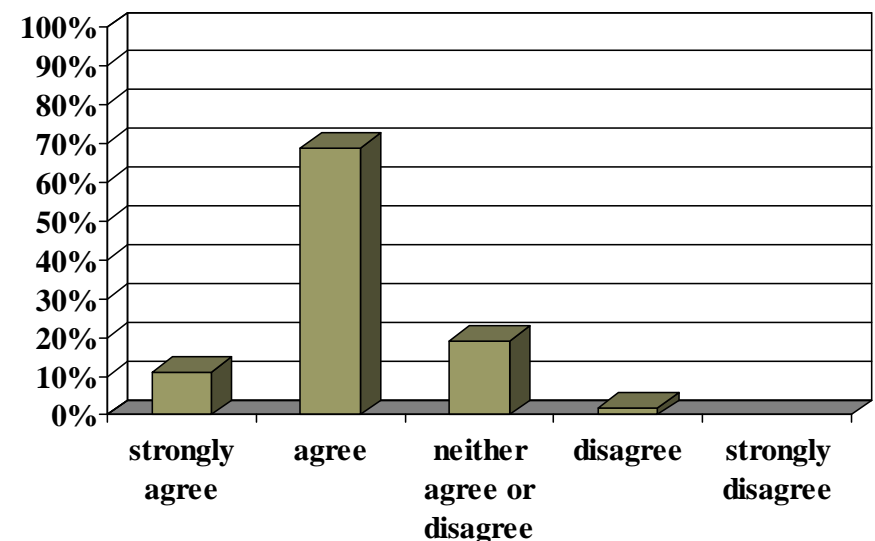
□ Technology: SPARK

□ Benefit: 😊😊😊😊☹️

□ Workload: 🕒🕒🕒☹️☹️

□  Ask to see demo

**Pre-course survey:
"Journal will improve my learning"**



Custom PRS: “Whoa”

□ Description

A tool that allows students to give me on-the-fly feedback on the pace, responses to questions for discussion, and instant polling.

□ Motivation

Incentive for all students to engage during class and a way for me to know what students are thinking.

□ Analysis

This tool has transformed my class. I suddenly get great feedback on all questions, when it used to feel like pulling teeth. And, students love it.

□ Technology: custom

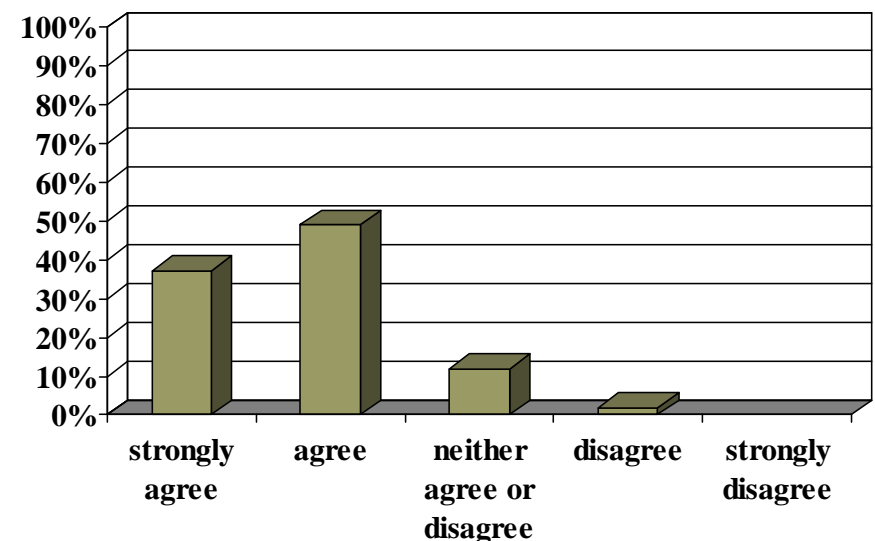
□ Benefit: 😊😊😊😊😊

□ Workload: 🕒🕒🕒🕒🕒

□  Ask to see demo

Pre-course survey:

“Whoa tool will improve my learning”



My Course Blog

□ Description

My public conversation with my class, where I share my thoughts on the course and post assignments. I post before each class, on average. This is the electronic front door.

□ Motivation

Ensure that my students understand the context of their work, and know what I expect of them and why.

□ Analysis

I enjoy this style of communication, and many students agree. I like that the students have a record of my instructions and encouragement.

□ Tech: WordPress @ UMass

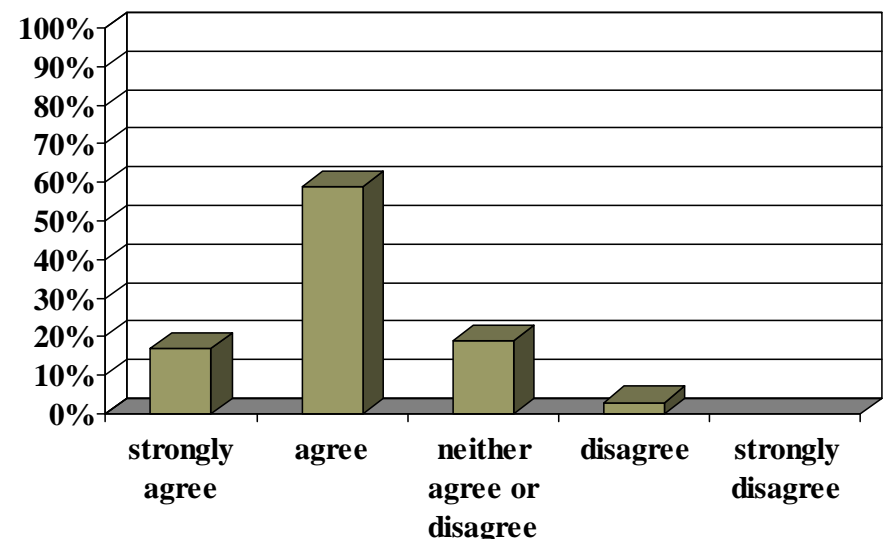
□ Benefit: 😊😊😊☹️☹️

□ Workload: 🕒🕒☹️☹️☹️

□ 🖥️ Ask to see demo

Pre-course survey:

"Instructor's Blog will improve my learning"



Wiki

□ Description

Students co-developed grading rubric for their journals and can post and rate web-based learning resources they find. Extra credit.

□ Motivation

Incentive for students to contribute to the class learning experience.

□ Analysis

* Grading rubric was enormously successful: almost full participation and positive impact on journal quality. Course resource entries, though, are mostly mine. It's easy to confuse the blog and wiki, but I don't want to lose either tool.

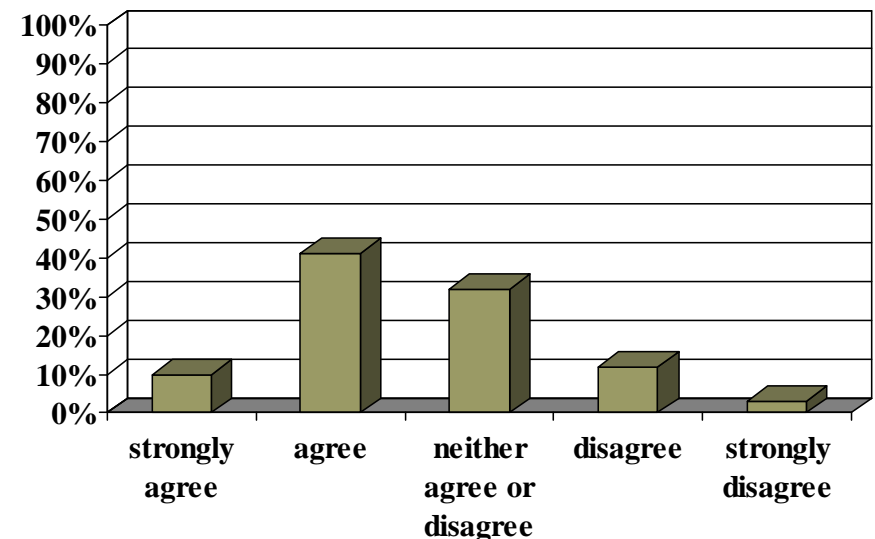
□ Technology: PBWiki

□ Benefit: 😊😊😊😊☹️*

□ Workload: 🕒🕒🕒🕒🕒

□ 🖥️ Ask to see demo

Pre-course survey:
"Wiki will improve my learning"



112 Creative Commons

□ Description

Students opt to “publish” work from early project phases to commons. Other students can cite and build off that work. Extra credit.

□ Motivation

Produce professional-quality work for community partners and keep students engaged in producing for clients, even if they had rocky start.

□ Analysis

Technical issues with Spark compromised first attempt. Hopeful that second attempt, using blog for delivery, will be successful. I think theory is sound, and students agree.

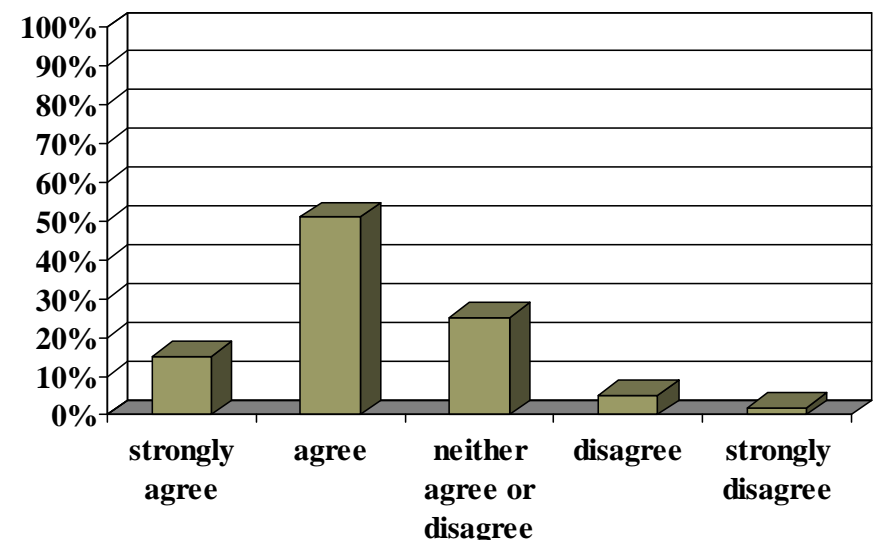
□ Tech.: Spark then blog

□ Benefit: 😊 😊 ? ? 😞

□ Workload: 🕒 🕒 🕒 🕒 🕒

Pre-course survey:

"112 Commons will improve my learning"



Other Technologies

- ❑ **Threaded Discussions** (in SPARK)

Students weigh in on threads for each tool, describing its effectiveness and how it might be better used.

- ❑ **Anonymous Surveys** (using Zoomerang)

Provides a reality check for the non-anonymous journal entries and discussion threads.

- ❑ **Video demos** (Camtasia, MANIC, and Atomic Learning)

Supplemental resources mostly focused on skill-building. Students responsible for creating one of their own.

- ❑ **Photo rosters** (Peoplesoft SMS)

Rosters have photos of most students, so it is easier to know who's who.

- ❑ **Undergrad. peer TAs** (OK, not technology, but important complement)

Attend classes, hold their own office hours, and generally advocate and translate.



Questions?

- Feel free to contact me at caffery@resecon.umass.edu