*The evolution of MOOCs

How should Michigan Tech Respond?

University Senate Meeting November 6, 2013

*Lots of promise: Georgia Tech offers MS in Computer Science MOOC for <\$10,000

Even Zvi Galil, the head of Georgia Tech's school of computing who is launching the new program, is wary. "This is uncharted territory," he says. But, he warns, if Georgia Tech doesn't do this someone else might come along and do it first—grabbing the notoriety, the students, and the revenue. "There is a revolution. I want to lead it, not follow it," he says.

Gabriel Kahn, slate.com "The MOOC That Roared"

*Recent Developments



*"For all that great potential...MOOCs still have a lot of room for improvement."

"In large part, the experience is very good, but we see that there are problems, and there are a number of things that can be done that have promise," says Anant Agarwal, president of edX. "We are not even close to the kinds of conclusions we want."

Geoffrey A Fowler, Wall Street Journal, 10/8/2013 "An Early Report Card on Massive Open Online courses"

*Recent Developments



*Some have even gotten off of the MOOC train...

Inside Higher Ed reported...that San Jose State is <u>suspending</u> the <u>Udacity partnership</u> just six months after it launched. The problem: More than half the students in the first batch of online courses failed their final exams.

Will Oremus, Slate.com, 7/19/2013 "University suspends online classes after more than half the students fail."

*Recent Developments



*So what's the answer?

Many experiments being developed at traditional schools involve blending online and offline learning, sometimes called flipped classrooms. Students watch lectures online at home, and then come to class to work on projects and interact with faculty. There's some evidence that such hybrids can even improve student performance in traditional in-person classes. One fall 2012 test by San Jose State and edX found that incorporating content from an online course, Circuits and Electronics, into a for-credit campus-based course increased pass rates to 91% from as low as 55% without the online component.

Blended classes may well be the future of MOOCs. "We do not recommend selecting an online-only experience over a blended learning experience," says Coursera's Mr. Ng.

Geoffrey A Fowler, Wall Street Journal, 10/8/2013 "An Early Report Card on Massive Open Online courses"



- *Strategy: Focus on Michigan Tech's Core Business
- *FROM THE VISION STATEMENT, GOAL 2:
- *2.2 Transformative educational experience grounded in a <u>high-tech</u>, <u>high-touch</u>, <u>residential</u> environment.
- *encourage and support innovative, <u>efficient</u>, <u>and</u> <u>technology-based means</u> of delivering instruction and enhancing learning



Michigan Technological University Center for Teaching and Learning

*How are we doing that?

- *Blended Learning faculty training and support through Jackson CTL
 - √ 70+ Camtasia Licenses distributed to faculty in 2012-13
 - √ 185 faculty visits to CTL with just our students!
 - ✓ Lecture Tools Pilot
 - √ 52 separate formal workshops scheduled so far this semester
 - √ 5 Department visits by director to answer questions
 - ✓ \$50,000 in grants to be awarded to faculty to stimulate development (18 applicants)
 - ✓ Remodeled Dow 642, Fisher 139, other classrooms



*Building Blending

*Keep and Highlight:

- *Hands-on Focus
- *Approachable Faculty
- *Unique Geography and Opportunities
- *Chances for students to...
 - ✓ Research
 - √ Teach/Coach (Learning Centers)
 - ✓ Connect with Industry
 - ✓ Work in Teams





*Add:

- *Computerized Testing
 - ✓ Standardized ways to measure mastery
 - ✓ More flexible ways to learn and earn credits.
- *<u>Strategic</u> undergraduate online courses
 - √ Keep students on pace
 - √ Co-op, semester abroad, etc.
- *Online graduate or outreach programs built on unique expertise





*Be Cautious About...

- *High initial development costs
 - √ \$250,000 for platform
 - ✓ Production team of 10+ people
- *Broad competition in high volume courses
 - ✓ Math, Physics, Chemistry
 - ✓ Production team of 10+ people
- *Lecturing without interactivity (especially to large groups)







