From OpenCourseWare to Open CourseWare

Brandon Muramatsu, mura@mit.edu
MIT Office of Educational Innovation and Technology

Citation: Muramatsu, B., (2010). From OpenCourseWare to Open CourseWare. Presented at OER’11: Manchester, UK, May 12, 2011.
Continuing the Cat Meme...

But I’m a dog person…

…everyone say, “Awwwww!”

The talk I was going to give was going to go something like...

- We’re experimenting with what we can do with the course materials published in MIT OpenCourseWare –for– MIT.

- Namely, let’s restructure the materials and import them into Moodle and build assessments around them … turning them into “real” Open CourseWare.

- And then, here’s a working example and what we learned… But…
Somewhere along the way I got sidetracked…

- This little conference in [the other] Cambridge…


- …so, my apologies…

- Instead I’ll describe the motivation and process we will be exploring this summer.
Caveats

- I’m with the MIT Office of Educational Innovation and Technology (OEIT)
  - I don’t work for MIT OpenCourseWare
  - I *do* work with them
  - So, I don’t represent MIT OpenCourseWare

- Also, I’m not making institutional commitments about MIT or MIT OpenCourseWare
Wouldn’t it be great if MIT OpenCourseWare…?

About a year ago…
Early 2010
MIT OCW is a Publication

- MIT OpenCourseWare is a free publication of MIT course materials that reflects almost all the undergraduate and graduate subjects taught at MIT.
- OCW is not an MIT education.
- OCW does not grant degrees or certificates.
- OCW does not provide access to MIT faculty.
- Materials may not reflect entire content of the course.

...but...we’re at MIT, certainly we should be able to do more with OpenCourseWare…

Wouldn’t it be great if MIT OCW…?
...aha!
We were asking the wrong question!

What if **WE** experimented with MIT OCW...?
Sure...OEIT can develop a custom copy of MIT OCW

- Mirror of MIT OCW site
- Within boundaries of Creative Commons License, by-nc-sa

✔ Project Greenfield

http://greenfield.mit.edu
Project Greenfield

• MIT Faculty have asked us about…
  • Interactivity
  • Tools and services
  • Innovative browse mechanisms

• OEIT’s goals are to:
  • Support MIT faculty
  • Experiment, to show what’s possible (e.g., Web 2.0)
  • Prototype tools and services

• … all with MIT OCW course materials
Further Motivations

- **OEIT**
  - Experiment with tools, content delivery

- **Internal to MIT**
  - Lots of internal discussions
  - Increase use of MIT OCW for on-campus courses
  - Experiment with other LMS/VLEs

- **External to MIT**
  - Increase in OER and especially open course development (Saylor Foundation [saylor.org](http://saylor.org), Washington SBCTC Open Textbooks, etc.)
  - New models in certification (P2PU, KNEXT, etc.)
“New” (Old?) Terminology

- Open CourseWare

- Especially in the context of the Educause Next Generation Learning Challenges (NGLC) program
Open CourseWare

- Should facilitate rich interactivity with instructor, peers, and content;
- Must be of the highest pedagogical and technical quality, integrating effective teaching strategies and interactive technologies;
- Should include clear student learning objectives and assessment strategies that monitor and review student success;
- Must be standards-based to ensure they can be used broadly, yet be customizable to the needs of different learners/instructors (including persons with disabilities); [and]
- Should be openly licensed to allow institutions and faculty to tailor to local needs and improve the courseware over time.

MIT OpenCourseWare

- Serves a number of user groups:
  - Faculty looking to teach a new subject, to see how other faculty (esp. MIT faculty) teach courses
  - Students, at MIT and elsewhere, looking for resources to help them with a course
  - Independent learners

- Is a *publication*
  - Snapshot of courses taught by a particular faculty in a particular term
  - Has whatever materials the faculty made available
  - Typically has slides and lecture notes, perhaps assignments and exams.
MIT OCW Scholar Goals

• Designed for independent learners who have few additional resources available to them.

• The courses are substantially more complete than typical OCW courses and include new custom-created content as well as materials repurposed from MIT classrooms.

• The materials are also arranged in logical sequences and include multimedia such as video and simulations.

Features of OCW Scholar Courses

- Modularized Content
- With Quizzes
- Includes Video
- Includes link to OpenStudy groups
- Good step, but pretty big concept chunks
- Formative assessments, but static and in PDF format consistent with other MIT OCW materials
- Link to specific time segments
- Can ask a question and get an answer, but still not a “course”

Designed for independent learners
What are others doing to build upon MIT OpenCourseWare?—OpenStudy

- Allowing users to connect with other learners
- OpenStudy (9 courses)

  6.00 Introduction to Computer Science
  18.01 Single Variable Calculus (Fall 2006)
  6.001 Structure and Interpretation of Computer Programs
  6.002 Circuits and Electronics
  8.01 Physics I: Classical Mechanics
  8.02 Electricity and Magnetism
  18.01 Single Variable Calculus (Fall 2006)
  18.02 Multivariable Calculus
  18.06 Linear Algebra

Source: OpenStudy
http://openstudy.com/questions/A-6500-kg-helicopter-accelerates-upward-at-0.60-m-s-s-while-lifting-a-1200-kg-car.-a-What-is-the-lift-force-exerted-by-the-air-on-the-r-4cbd2903fdd3a7f0a66df45
What are others doing to build upon MIT OpenCourseWare?—Nixty

What are others doing to build upon MIT OCW?—Saylor Foundation

- Remixing OERs, including MIT OCW
- Includes Learning Outcomes
- Adding Final Assessments

Reusing Courses, or Teaching directly from OERs/OCWs

• Questions of scale, and…

• How much investment are you willing to undertake?

• For example, MIT OCW, consistent with their mission takes a large investment to achieve the breadth, instead of focusing on all the other things that would make “Open CourseWare”

• How much investment is necessary to create a “course” from the course materials?
So what does this mean for the project?

Other Developments and OCW Scholar
Interactivity

• “Should facilitate rich interactivity with instructor, peers, and content.”
• I’m not sure about this one yet.
• External OERs and learning objects?
High Quality

“Must be of the highest pedagogical and technical quality, integrating effective teaching strategies and interactive technologies.”

- Arguably, high quality already
- But, not designed for “teaching from…”
- Newly designed for “learning from…”
- Not especially interactive—but lots of resources out there
Learning Objectives and Assessment

- “Should include clear student learning objectives and assessment strategies that monitor and review student success.”
- Snapshot of course, with materials provided by faculty
- Broadly speaking only engineering faculty have somewhat detailed learning objectives (because of accreditation)
- May or may not include assessments
Customizable

- “Must be standards-based to ensure they can be *used broadly*, yet be *customizable* to the needs of different learners/instructors.”
- Arguably already broadly used, but room for improvement
- Technically hard to customize, because of how materials are published (PDF)
What might the end result look like (for MIT)?

- OCW Scholar + Collaboration + Assessments + Facilitators = Open CourseWare

- Might be an ongoing instantiation of a massively open online course

- Probably be able to import this Open CourseWare course into your LMS/VLE
Thanks!

Brandon Muramatsu, mura@mit.edu
MIT Office of Educational Innovation and Technology

Citation: Muramatsu, B., (2010). From OpenCourseWare to Open CourseWare. Presented at OER’11: Manchester, UK, May 12, 2011.