Project Greenfield

A New Way of Thinking about MIT OpenCourseWare

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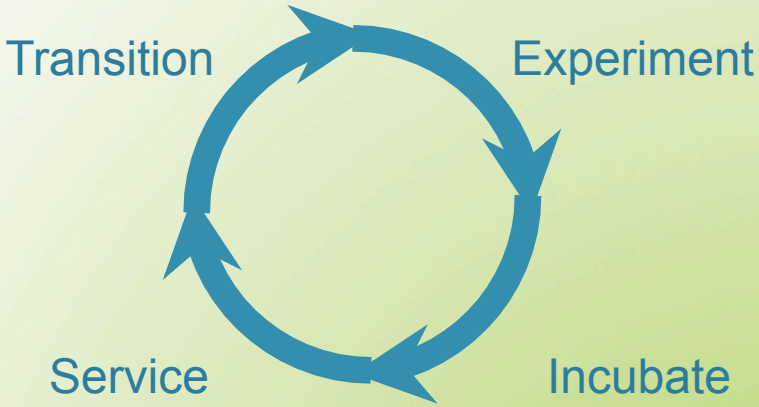
About Us…

- MIT Office for Educational Innovation and Technology
  - Dean for Undergraduate Education
  - Support innovation cycle
  - Novel uses of technology to support teaching and learning **at MIT**



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The Ground Rules

- I'm with the MIT Office of Educational Innovation and Technology
  - I don't work for MIT OpenCourseWare
    - I *do* work with them
  - I don't represent MIT OpenCourseWare or make institutional commitments about OpenCourseWare
    - And to be clear, MIT is not charging for OCW. "OpenCourseWare will remain free and open."
- This presentation will be a status report, and opportunity for discussion

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Wouldn't it be great if MIT OCW…?

Early 2010

@bmuramatsu

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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.

Reference: MIT OCW. (2010). About OCW. Retrieved on May 5, 2010 from MIT OCW Website: http://ocw.mit.edu/OcwWeb/web/about/about/index.htm

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…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…?

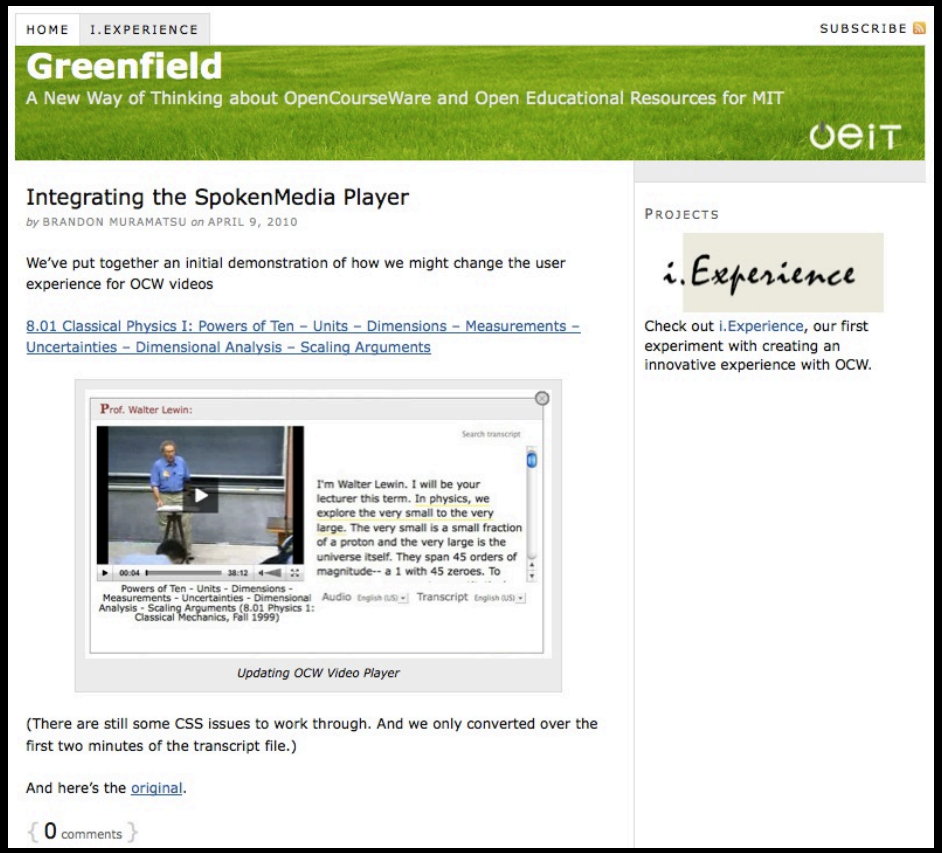
flickr@microrama

Sure…OEIT can develop a custom copy of MIT OCW

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

✓ **Project Greenfield**

http://greenfield.mit.edu



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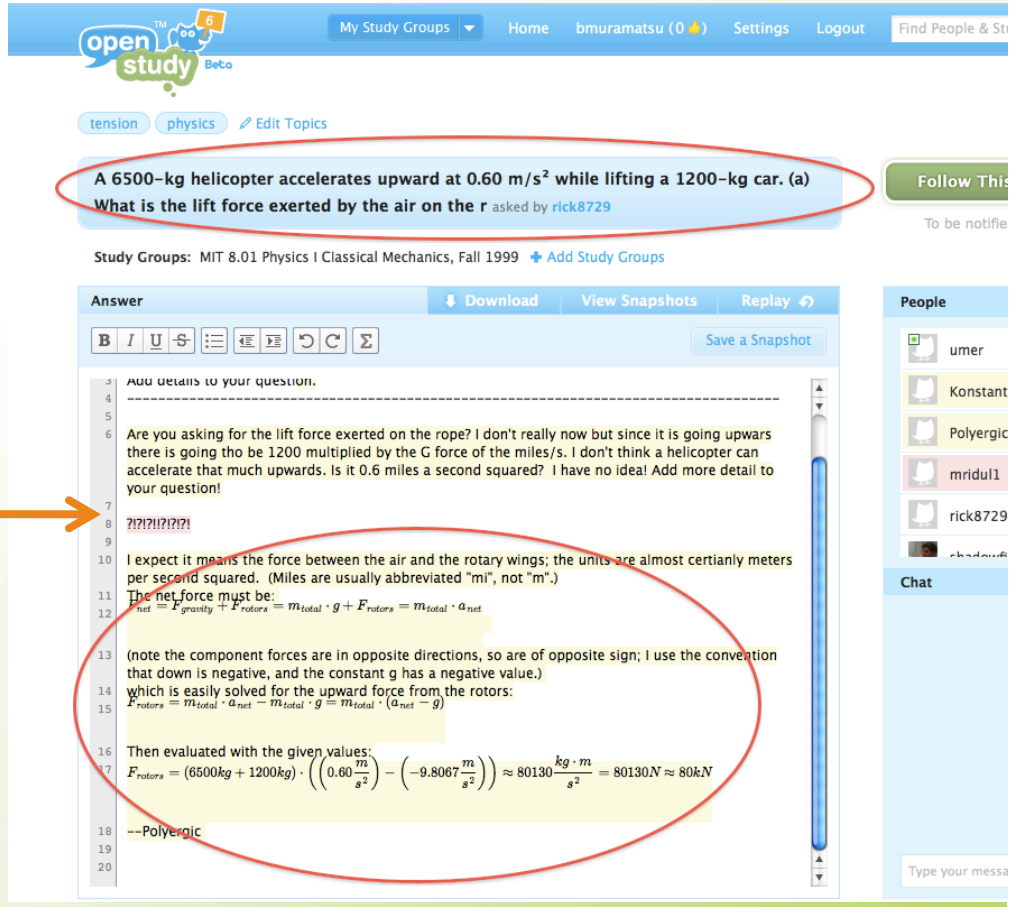
What are others doing to build upon MIT OpenCourseWare?—OpenStudy

- 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-ms-while-lifting-a-1200-kg-car.--a-What-is-the-lift-force-exerted-by-the-air-on-the-r-4cbd2903fddb3a7f0a66df45

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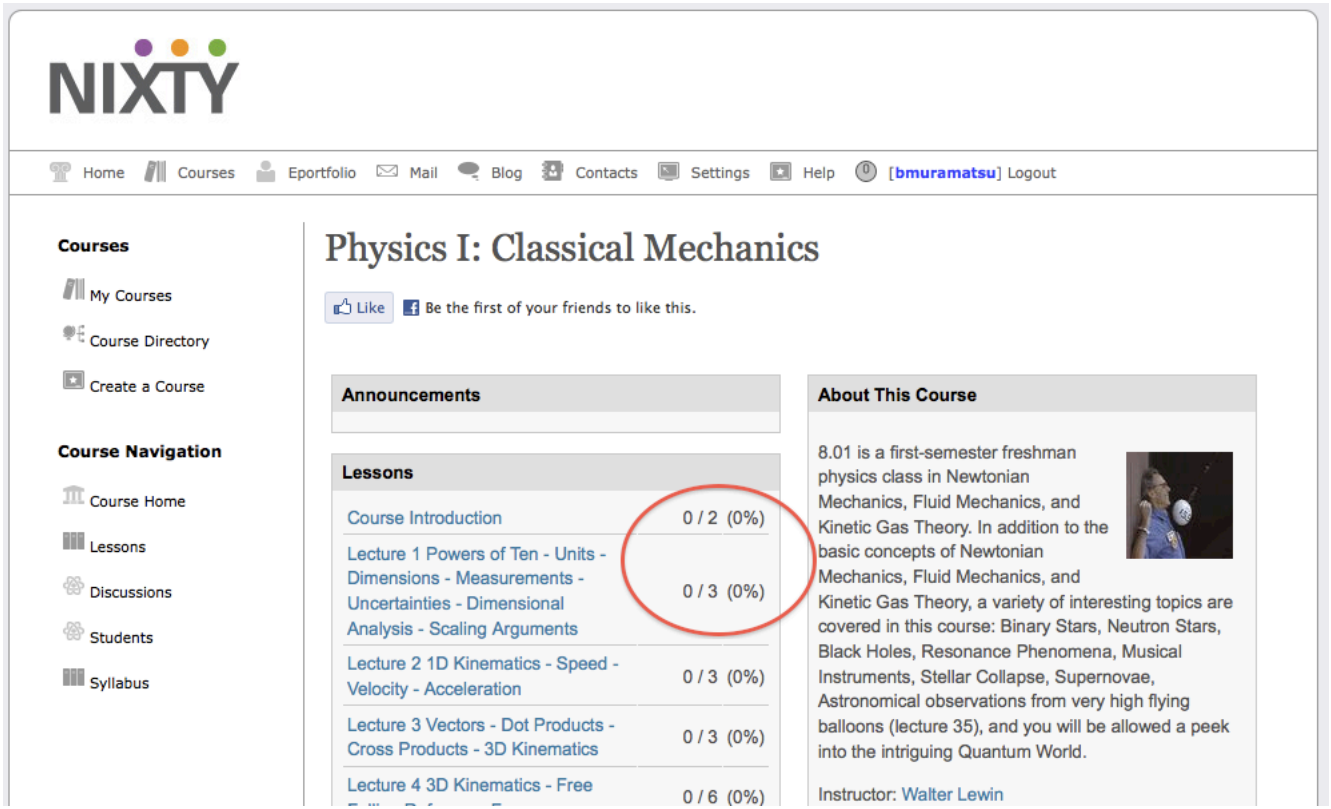
What are others doing to build upon MIT OpenCourseWare?—Nixty



Source: Nixty, http://nixty.com/course/Physics-I-Classical-Mechanics-MIT-Walter-Lewin

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Building Upon MIT OpenCourseWare

- These work well because MIT OpenCourseWare remains a publication
  - “Magnify the value of [the] publication.”
- These services are provided and supported external to MIT OpenCourseWare
  - Very “light” integration (page/links or copy of content)

Source: MIT OpenCourseWare. (2010). MIT OpenCourseWare Teams Up with OpenStudy to Help OCW Users Connect and Study Together [Press Release]. Retrieved from:http://ocw.mit.edu/about/media-coverage/press-releases/mit-opencourseware-teams-up-with-openstudy-to-help-ocw-users-connect-and-study-together/

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Launching Project Greenfield
April 2010

- 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 for published MIT OCW
- … all with MIT OCW course materials

Project Greenfield

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New Developments

- MIT OpenCourseWare has been updating elements
- MIT is looking at how we approach E-Learning and Other Educational Possibilities
  - 3 MIT committees, one focusing on use of E-Learning to enhance student learning experience
  - OpenCourseWare will likely play a big role—expanding the use of OpenCourseWare with MIT Students

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What are new developments with MIT OpenCourseWare?

- Transitioned to a new publication platform
  - Allows more rapid updates and changes (May 2010)
  - “New” Mirror program (forthcoming, November 2010)
- Improving interaction with video lectures
  - ~15 courses updated to date (September-October 2010)
  - Many of the most visited MIT OCW courses are because of their video lectures, adding more courses with video lectures

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What are new developments with MIT OpenCourseWare? (cont.)

- Creating OCW Scholar
  - MIT extending core courses to provide more complete learning materials
  - Organizing materials by concepts, adding explanation videos and tutorials, adding self-check quizzes
  - OCW Scholar Courses (December 2010)

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Ok, so what do WE WANT to do?!?!

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Projects Underway

- Video and transcript integration
- Concept browser

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i.Experience

SpokenMedia

Integrated Video Player

- ~~All~~ 15 MIT OCW courses with videos have 99% accurate transcripts
  - Displayed as captions on YouTube
  - …but what about all the others?
- What are we working on?
  - SpokenMedia player integrated into OCW page
    - "Bouncing ball" follow-along, including multi-lingual support
    - Search through existing transcripts, AND through automatically generated transcripts for ~33 (of 72) additional courses

OEIT

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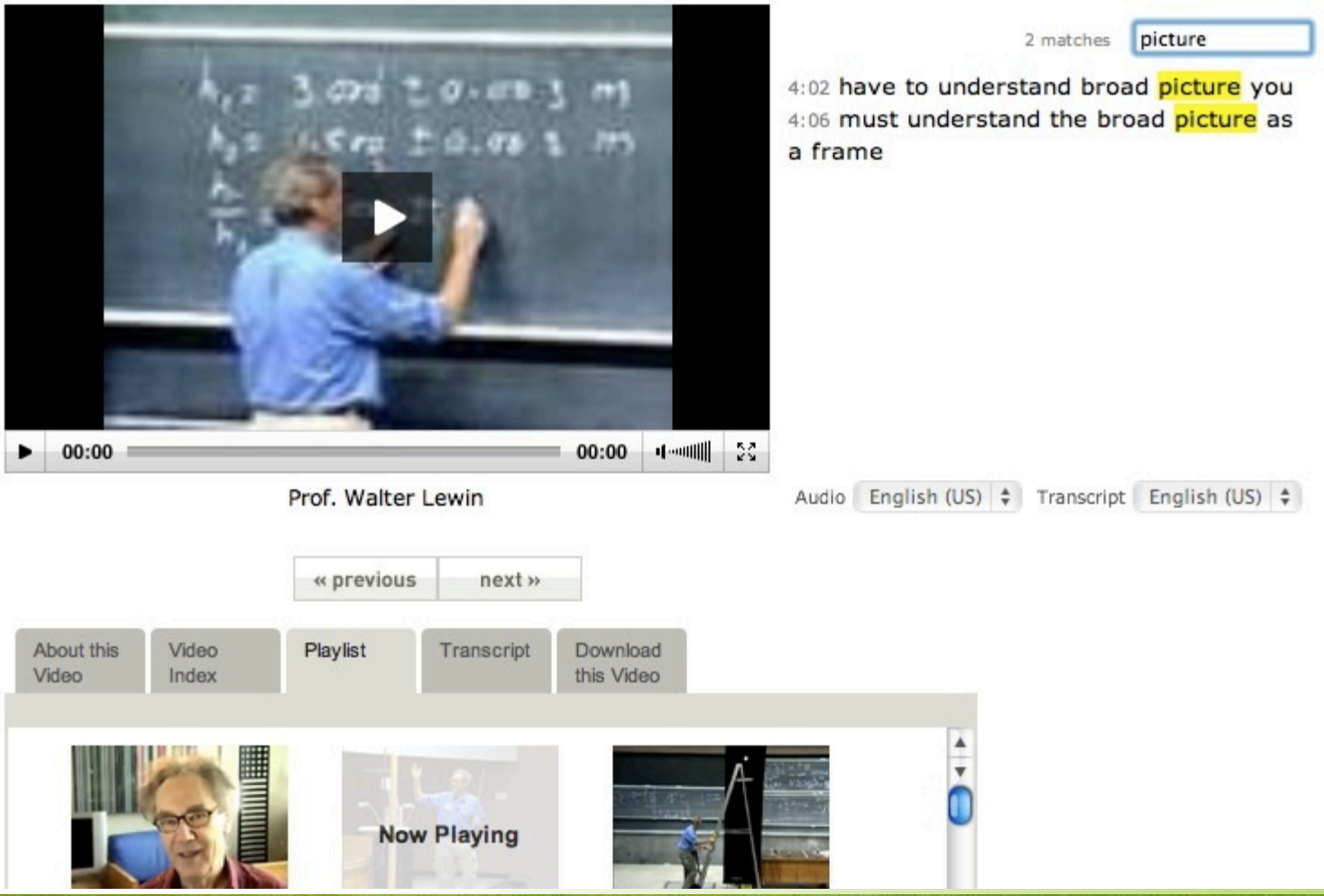
i.Experience

SpokenMedia

1: Units, Dimensions, and Scaling Arguments



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Concept Browser

- OCW is working on providing concept-type descriptions for some course materials
  - OCW Scholar
    - Concept level (1-10 concepts per course)
    - Includes learning objectives, some formative assessment
    - Created by faculty
  - OCW categorization project
    - Very high-level, course concepts
    - Hand applied

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Concept Browser

- What are we doing?
  - Enabling search over text AND video materials (using SpokenMedia)
  - iPad application (Vijay Umapathy, M.Eng. student)
    - Search by concept, browse multiple media (text and video)
    - “Playback” from the concept

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