Communication Instruction in the Department of Mathematics

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Writing Across the Curriculum

Communication Instruction in the Department of Mathematics

Before (AY2001)

Writing instruction for **~20**

No Institute Lab

4 Undergraduate Seminars

Communication Instruction in the Department of Mathematics

Before (AY2001)

Writing instruction for **~20**

No Institute Lab

4 Undergraduate Seminars

After (AY2011)

Writing &/or oral instruction for **~250**

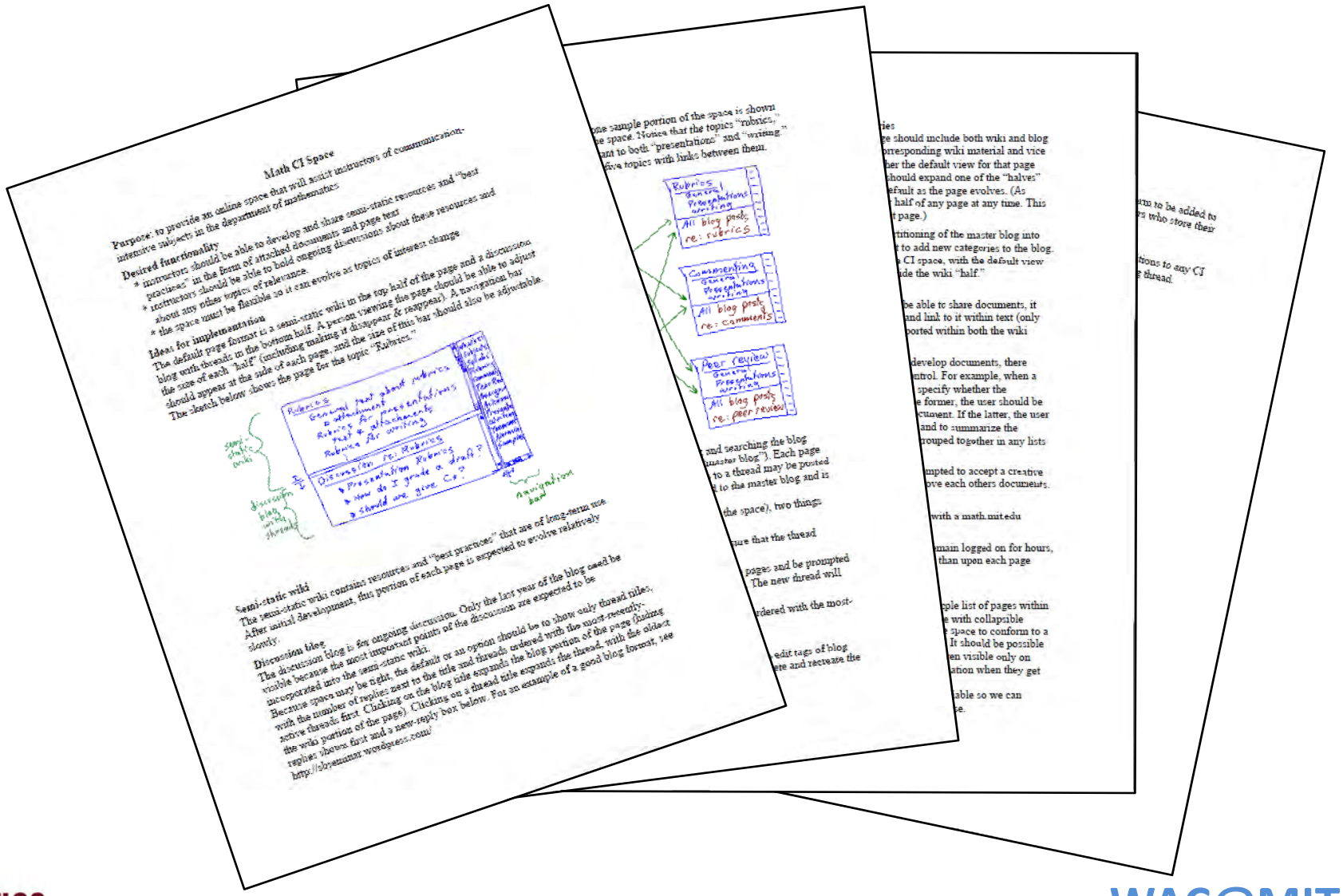
50 students took math lab

10 Undergraduate Seminars

18.100C *Real Analysis*

18.310(C) *Principles of Applied Mathematics*



Math CI Space

Purpose: to provide an online space that will assist instructors of communication-intensive subjects in the department of mathematics

Desired functionality
* instructors should be able to develop and share semi-static resources and "best practices" in the form of attached documents and page text
* instructors should be able to hold ongoing discussions about these resources and about any other topics of relevance.
* the space must be flexible so it can evolve as topics of interest change

Ideas for implementation
The default page format is a semi-static wiki in the top half of the page and a discussion blog with threads in the bottom half. A person viewing the page should be able to adjust the size of each "half" (including making it disappear & reappear). A navigation bar should appear at the side of each page, and the size of this bar should also be adjustable. The sketch below shows the page for the topic "Rubrics."

Rubrics
General text about rubrics
Rubrics for presentations
Rubrics for attachments
Rubrics for writing
Discussion re: Rubrics
Presentation rubrics
How do I grade a draft?
Should we give Cs?
semi-static wiki
discussion blog on the thread
navigation bar

Semi-static wiki
The semi-static wiki contains resources and "best practices" that are of long-term use. After initial development, this portion of each page is expected to evolve relatively slowly.

Discussion blog
The discussion blog is for ongoing discussion. Only the last year of the blog need be visible because the most important points of the discussion are expected to be incorporated into the semi-static wiki.
Because space may be tight, the default or an option should be to show only thread titles, with the number of replies next to the title and threads ordered with the most-recently-active threads first. Clicking on the title expands the blog portion of the page (hiding the wiki portion of the page). Clicking on a thread title expands the thread, with the oldest replies shown first and a new-reply box below. For an example of a good blog format, see http://joyeuxnoir.wordpress.com/

...one sample portion of the space is shown ...e space. Notice that the topics "rubrics," ...ant to both "presentations" and "writing." ...ive topics with links between them.

Rubrics
General
Presentations
writing
All blog posts re: rubrics
Commenting
General
Presentations
writing
All blog posts re: comments
Peer review
General
Presentations
writing
All blog posts re: peer review

...and searching the blog ...master blog"). Each page ...to a thread may be posted ...d to the master blog and is ...

...the space), two things: ...

...ure that the thread ...

...pages and be prompted ... The new thread will ...

...rdered with the most- ...

...edit tags of blog ...ete and recreate the ...

...ies ...ge should include both wiki and blog ...rresponding wiki material and vice ...ther the default view for that page ...should expand one of the "halves" ...efault as the page evolves. (As ... half of any page at any time. This ...t page.)

...titioning of the master blog into ...t to add new categories to the blog. ...e CI space, with the default view ...ide the wiki "half."

...be able to share documents, it ...and link to it within text (only ...ported within both the wiki ...

...develop documents, there ...ntrol. For example, when a ... specify whether the ...e former, the user should be ...cument. If the latter, the user ... and to summarize the ...rouped together in any lists ...

...mpted to accept a creative ...ove each others documents. ...

...with a math.mit.edu ...

...main logged on for hours, ... than upon each page ...

...ple list of pages within ...e with collapsible ... space to conform to a ... It should be possible ...en visible only on ...ation when they get ...

...able so we can ...e.

...rm to be added to ...rs who store their ...

...tions to any CI ...g thread.

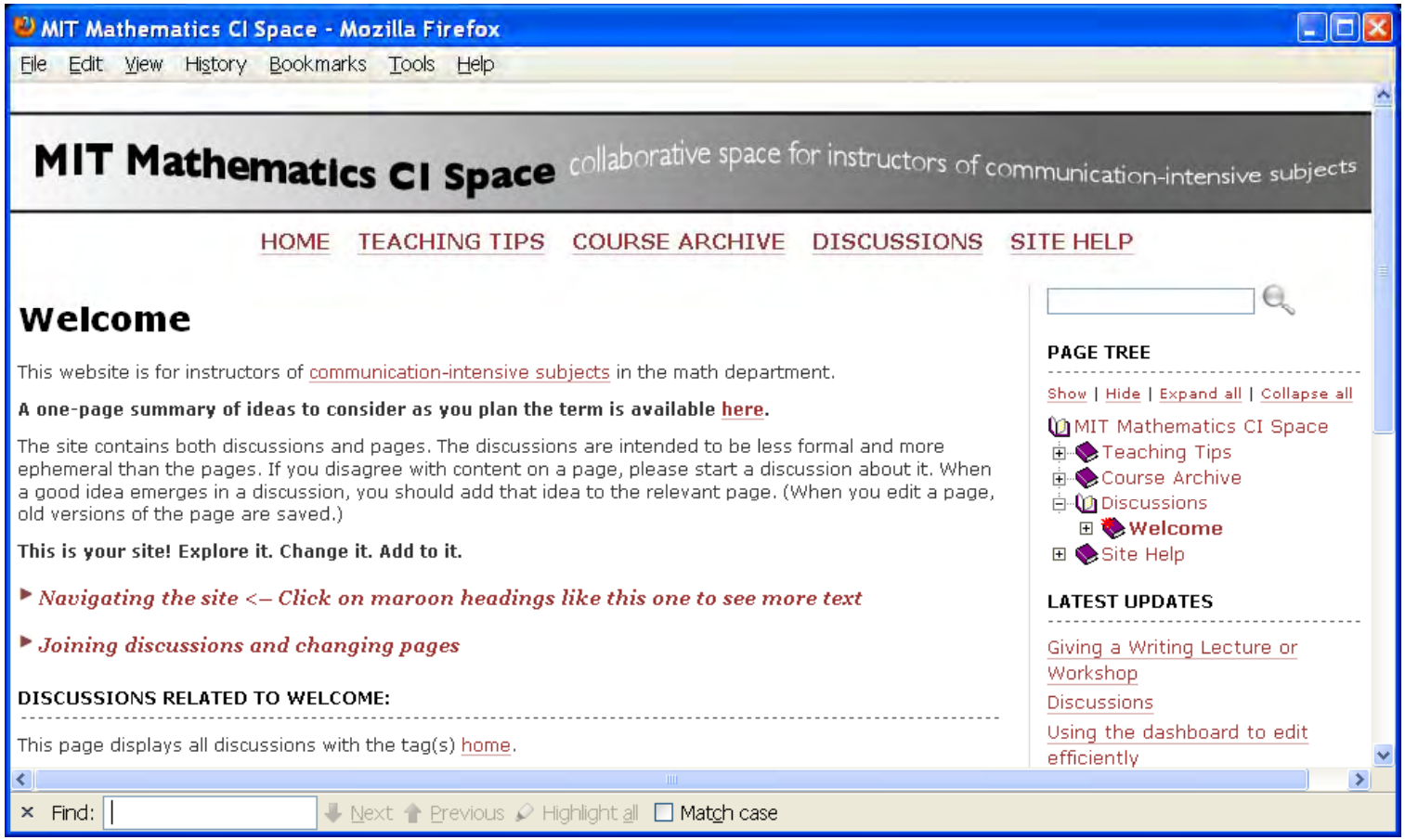
MIT MATHEMATICS

WAC@MIT









MIT MATHEMATICS

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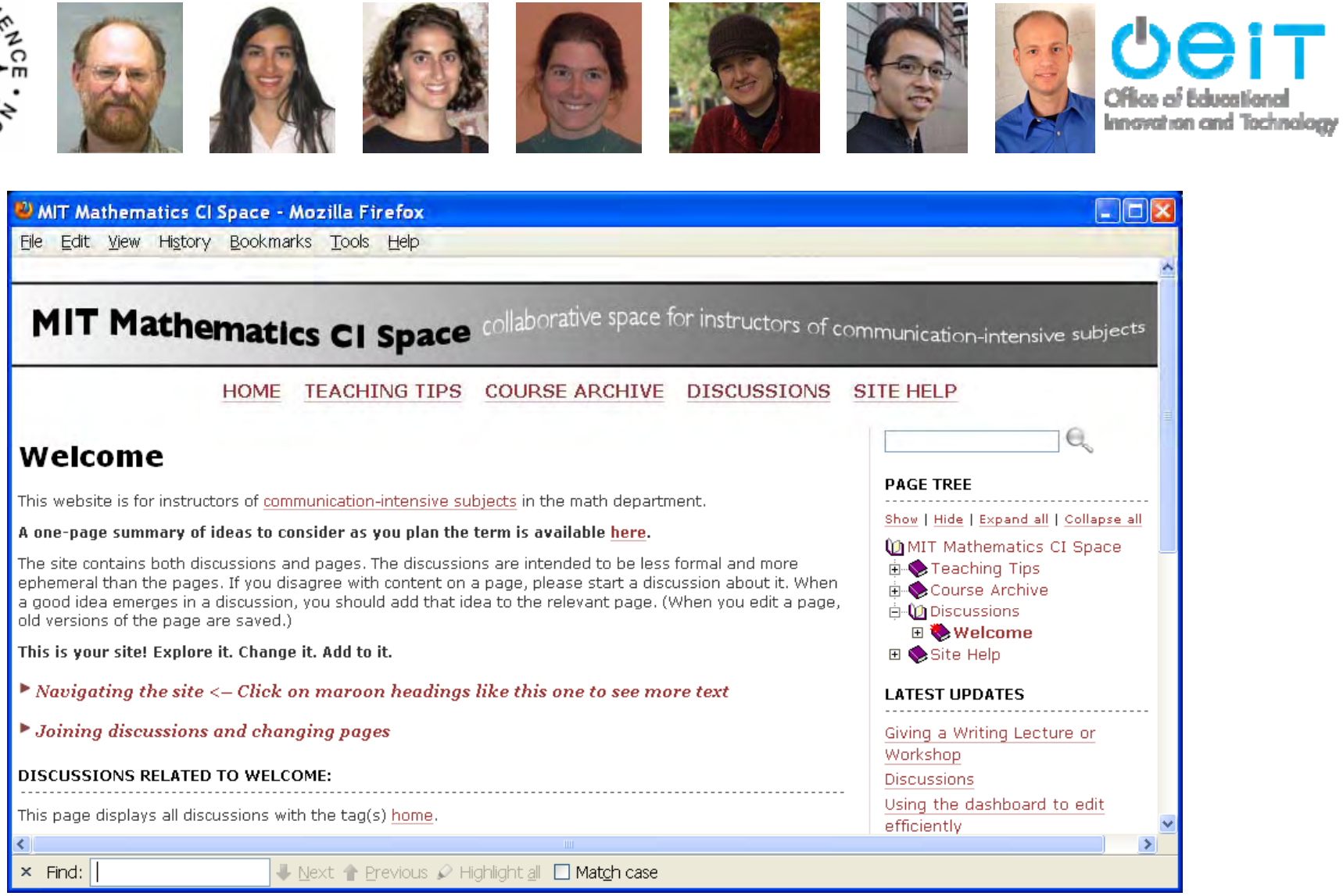

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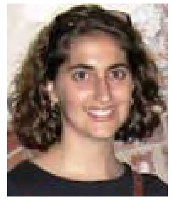
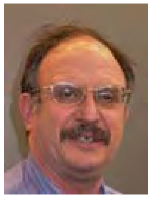
NATIONAL SCIENCE FOUNDATION

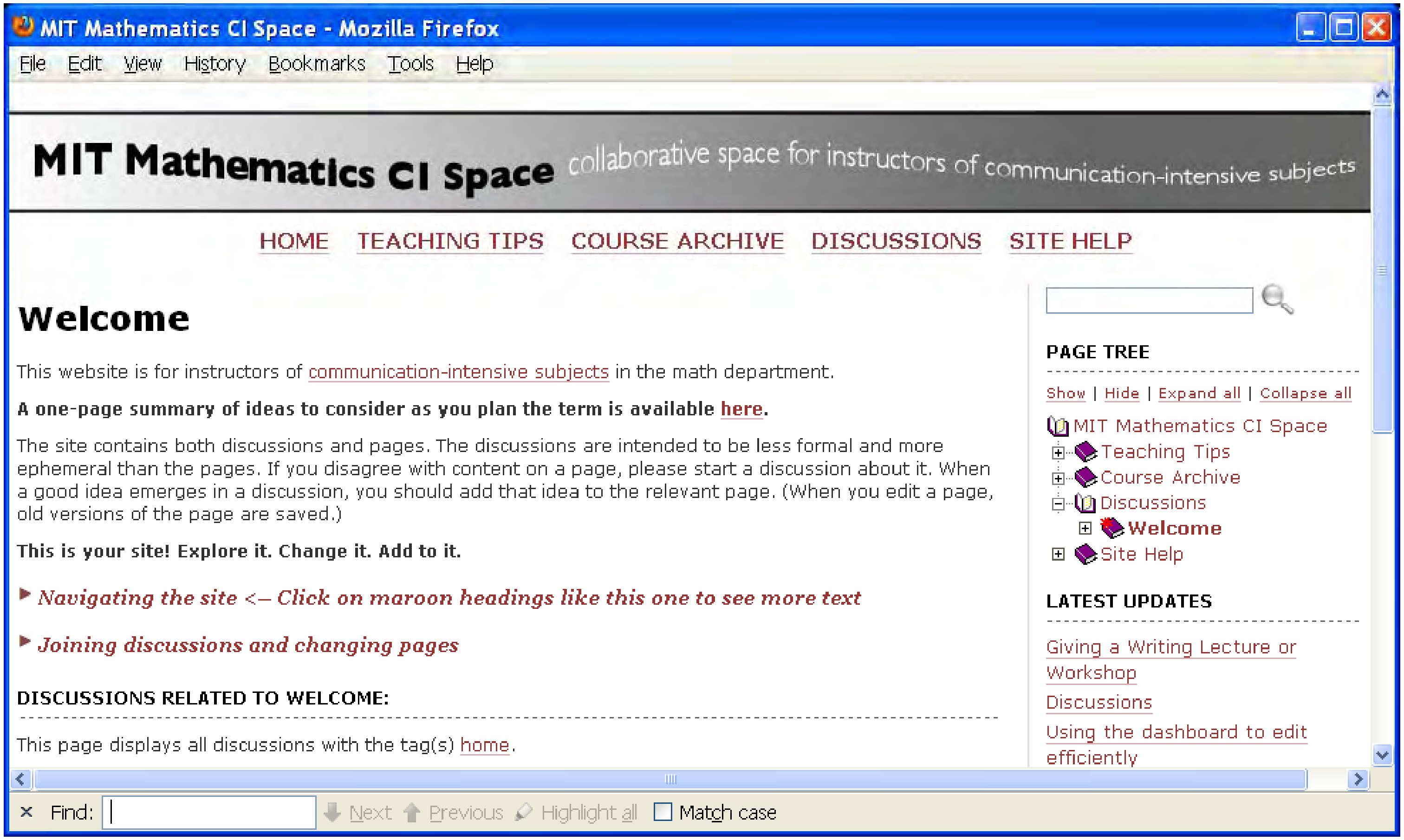






OEIT
Office of Educational Innovation and Technology






MIT MATHEMATICS





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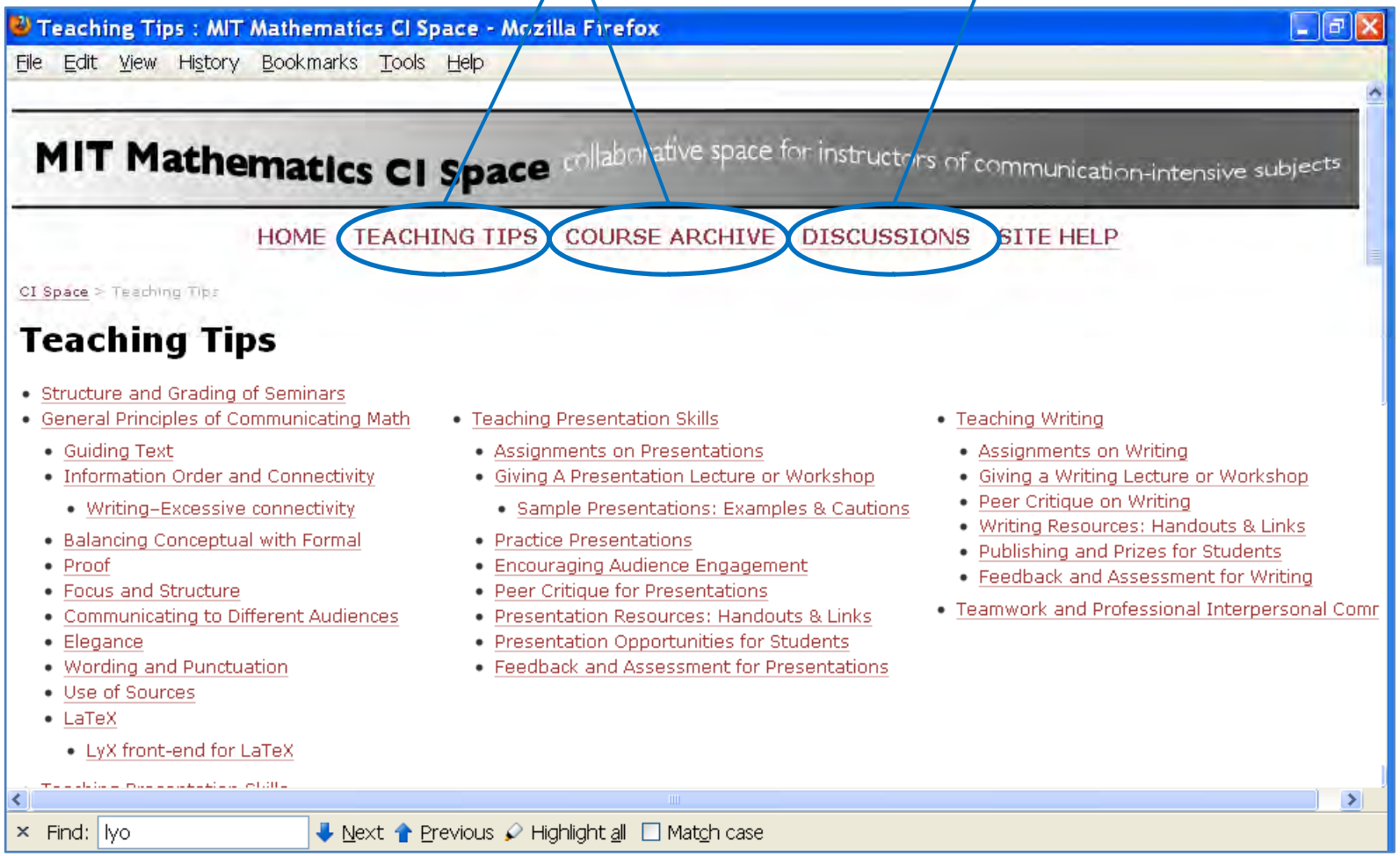
The CI Space has

114 pages with
111 attached files

8 online discussions

A variety of content



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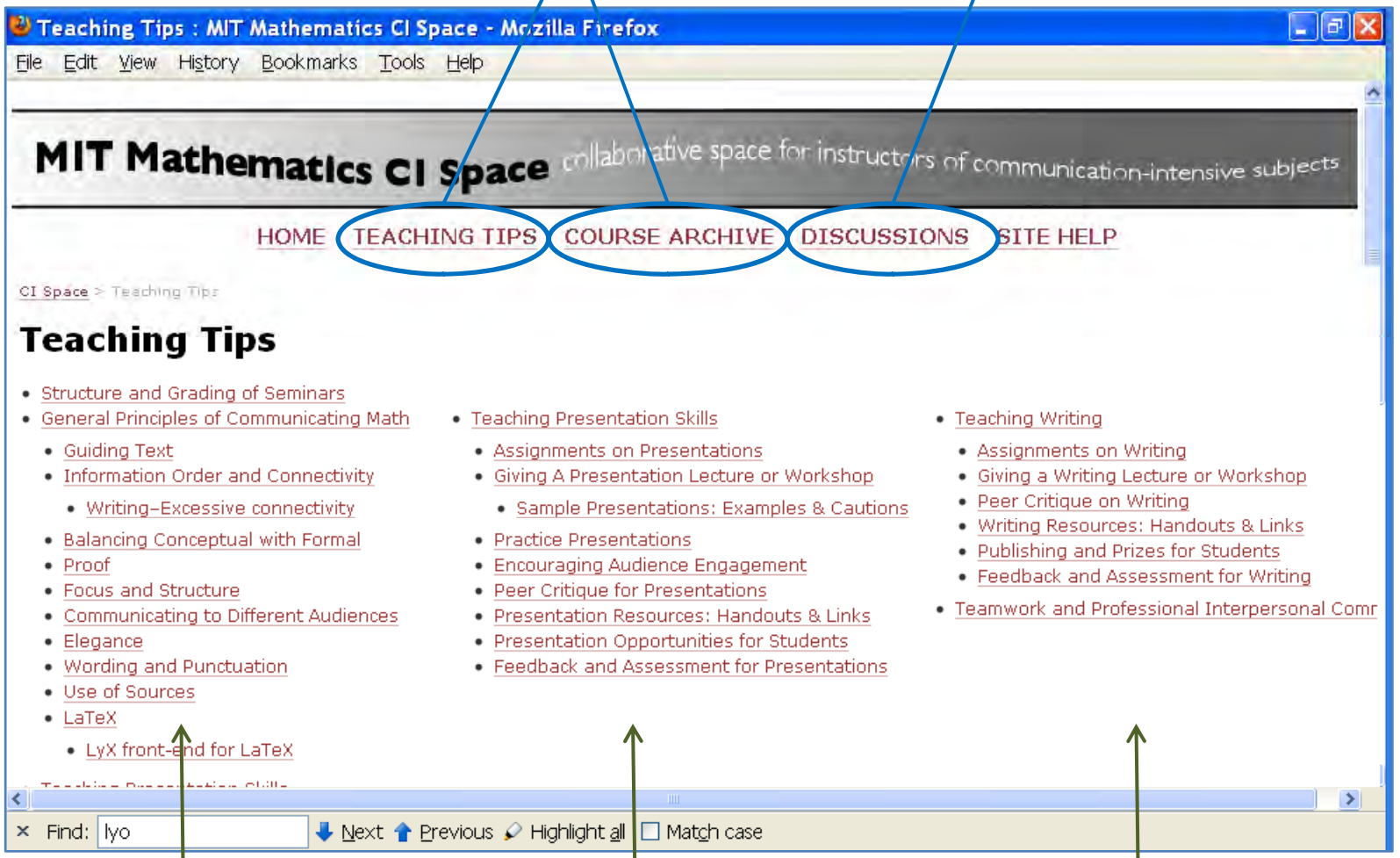
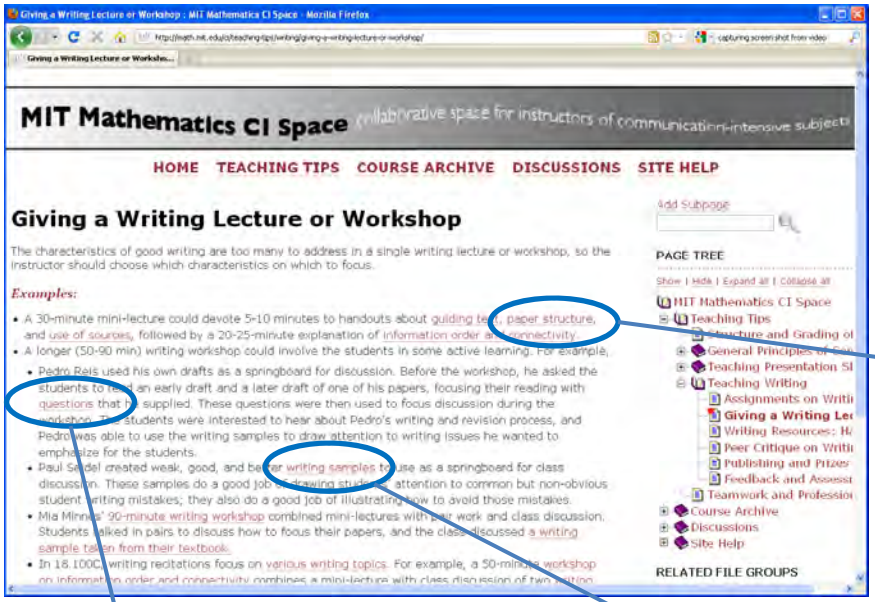


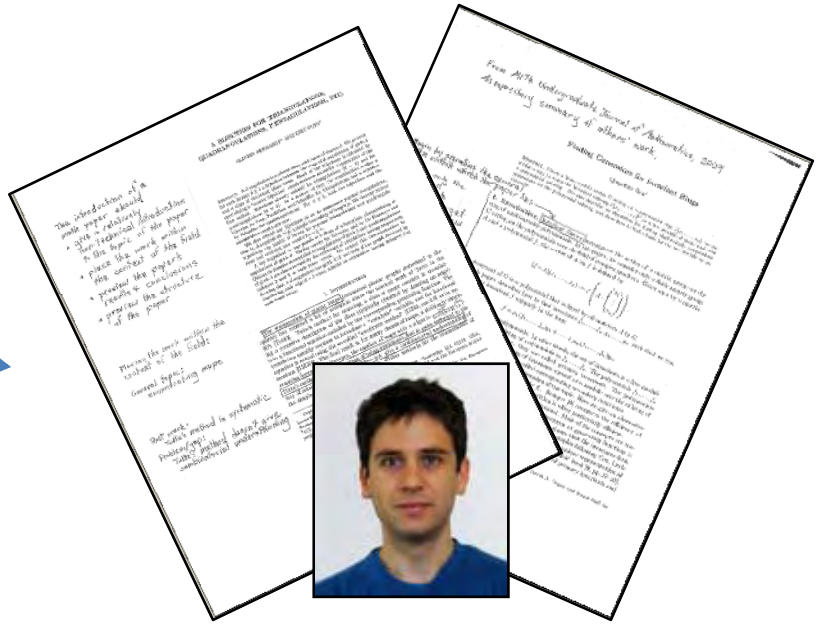
General principles of *communicating* math

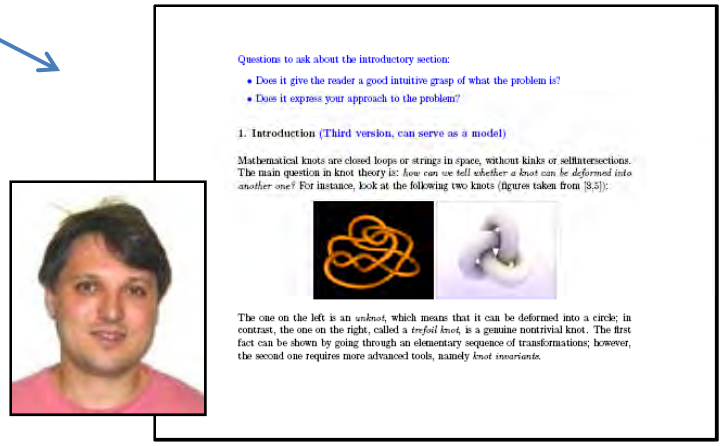
Teaching **how to present math**

Teaching **how to write math**

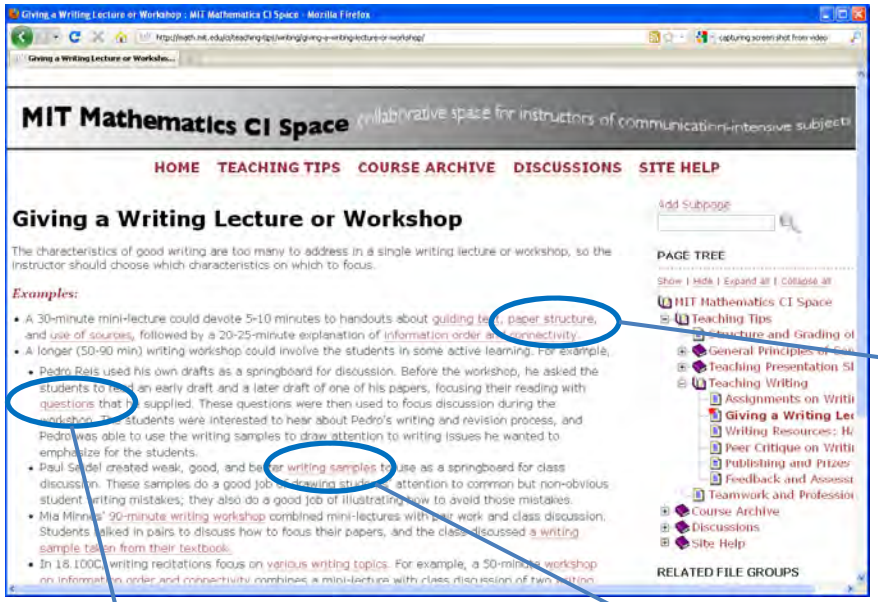
The content represents a variety of classes and pedagogical styles.

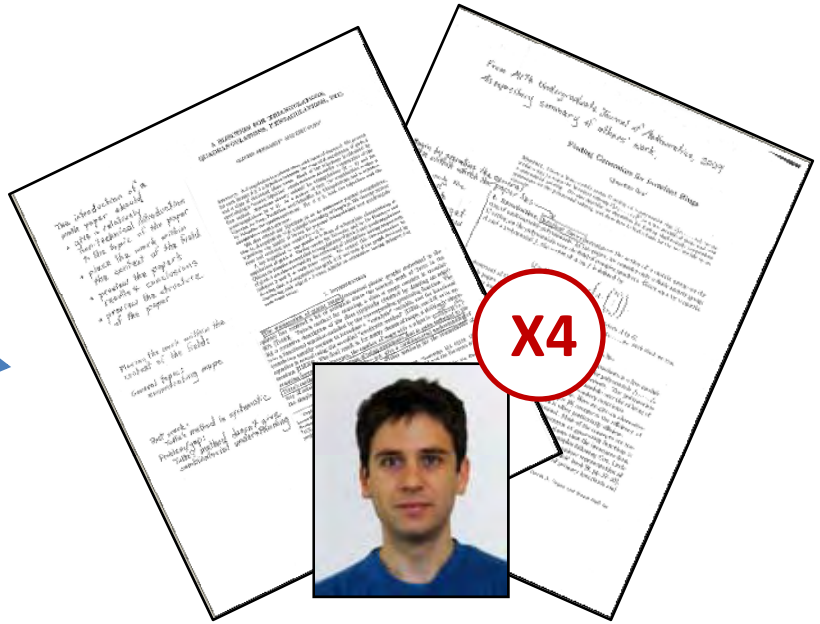


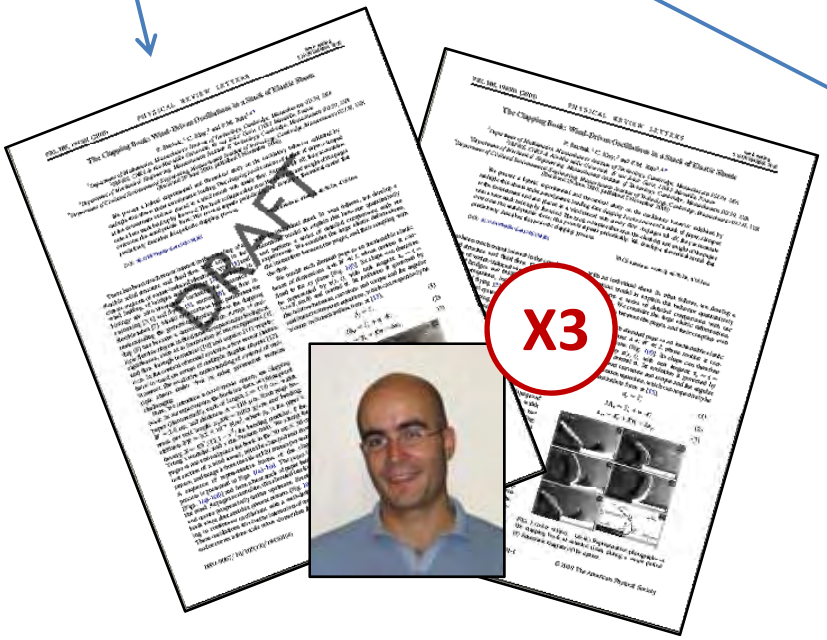




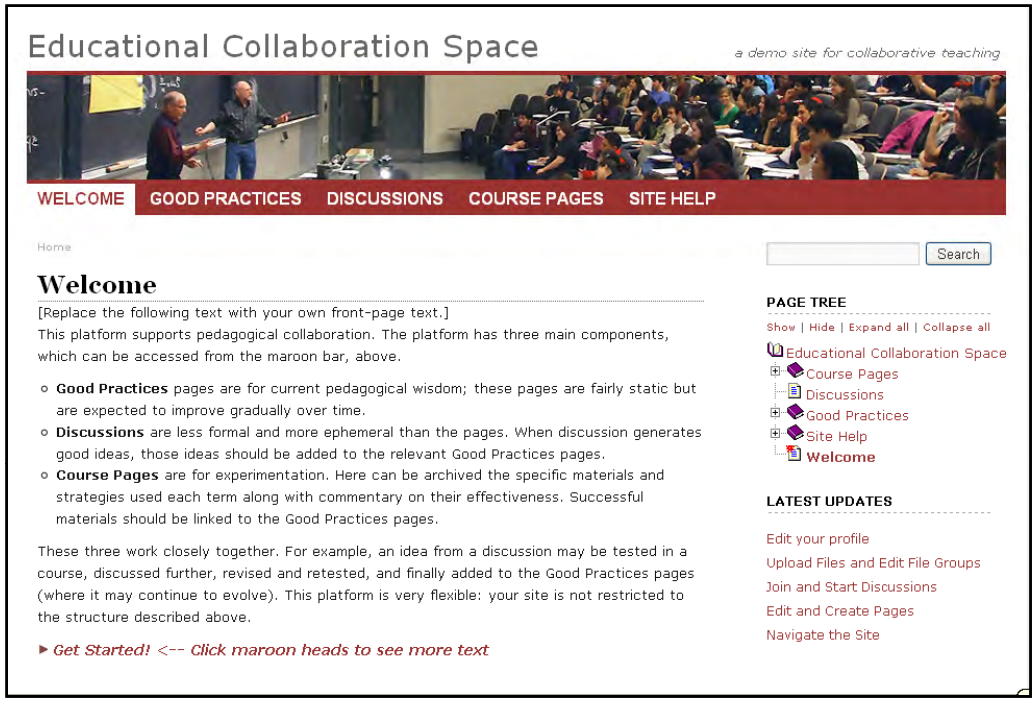
The CI Space enables reuse and refinement of pedagogy







Two spinoffs: A collaborative platform



Demo at ecs.mit.edu

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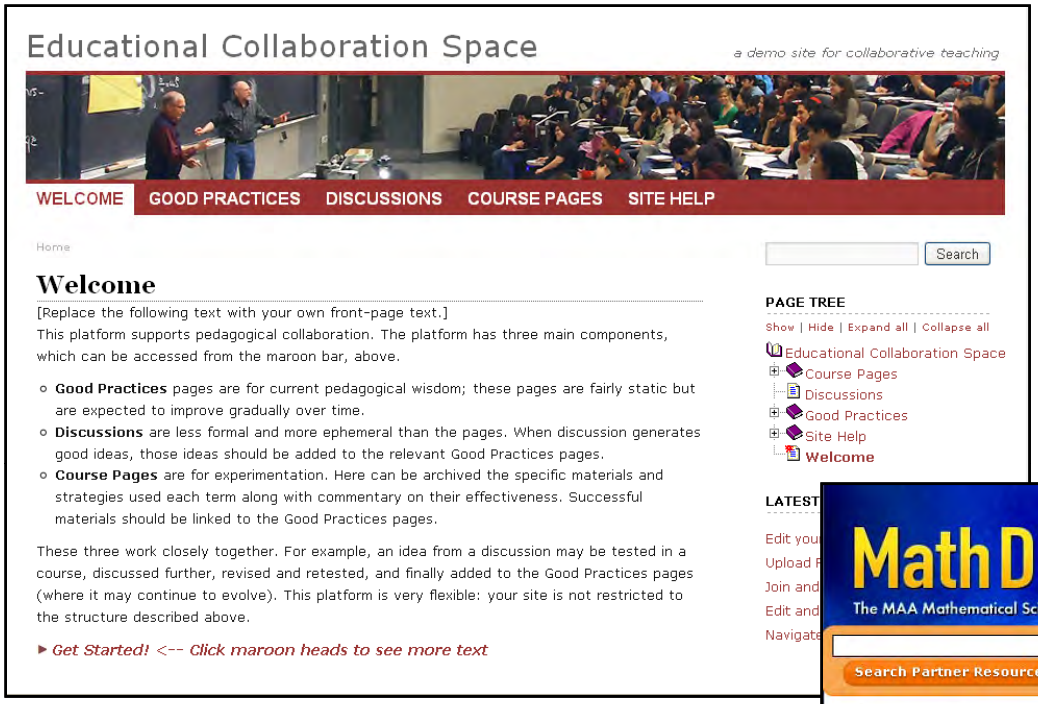

Demo at ecs.mit.edu

A public mathematical communication space

~1 year

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18.100C, 18.310(C)