

Our Objective...

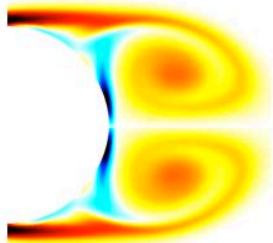
Insightful point-counterpoint with panelists and audience regarding the topic of online learning

Meet your panelists...

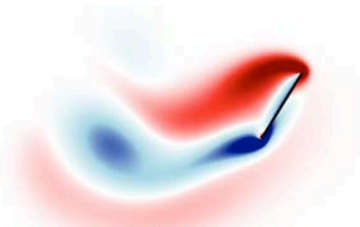


• Lorena A. Barba lorenabarba.com

- Associate Professor, Mechanical and Aerospace Engineering Department
- The George Washington University



Fluid Mechanics 

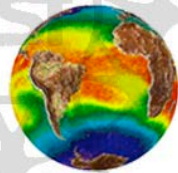


Computational Fluid Dynamics 

Bio-aerial Locomotion

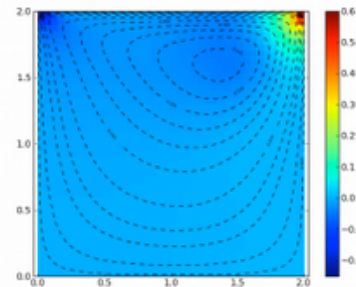


PASI Scientific Computing in the Americas





on iTunes U
and YouTube

CFD Python: 12 steps to Navier-Stokes



We announce the public release of online educational materials for self-learners of CFD using IPython Notebooks: the CFD Python Class on Bitbucket Some background This post describes the first practical module of Prof. Barba's Computational Fluid Dynamics class, as taught between 2010 and 2013 at Boston University. The module is called "12 steps to Navier-Stokes equations"... [CONTINUE »](#)

 [BLOG](#)  [DISCUSS](#) 07.22.2013

Barba is Piazza "Innovator of the Week"



Everybody's Flippin' —An Update on the Flipped Classroom



on Bitbucket flipped class & more



Introduction to Mathematical Thinking



1. There are infinitely many prime numbers.
2. For every real number a , the equation $x^2 + a = 0$ has a real root.
3. $\sqrt{2}$ is irrational.
4. If $p(n)$ denotes the number of primes less than or equal to the natural number n , then as n becomes very large, $p(n)$ approaches $n / \log_e n$.



Introduction to Mathematical Thinking

Keith Devlin



Keith Devlin

Stanford University

coursera | Global Partners

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Stanford

Introduction to Mathematical Thinking

Dr. Keith Devlin

Learn how to think the way mathematicians do - a powerful cognitive process developed over thousands of years.

Workload: 8-10 hours/week

$e^{ix} + 1 = 0$

π

Watch intro video

3.14159265...

Sessions:

Sep 2nd 2013 (10 weeks long) [Sign Up](#)

Mar 4th 2013 (10 weeks long) [View class archive](#)

Sep 17th 2012 (7 weeks long) [View class archive](#)

1,073 1.4k 8.4k

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Professor Autar Kaw

University of South Florida



- I have been teaching at USF since 1987. I believe that the biggest needs in a research university are on the learning side. Students belonging to the *lowest* income quartile and who are in the *highest* academic standards quartile deserve the best education possible at almost no cost.
- I have used technology in education since the DOS days of 1987.
- I am leading the development, assessment and implementation of an open education resource (OER) in Numerical Methods since 2001. Annually, the OER gets 1M page views, the YouTube videos receive 800K views, and the blog is visited 150K times. I challenge all MOOCs to become OERs also.
- Why was I chosen for the panel? Because, I am not cultish and have not drunk the juice.

Joe Le Doux, Ph.D.
Associate Professor

*Executive Director of Learning and
Student Experience*

The Wallace H. Coulter Department of
Biomedical Engineering at Georgia Tech
and Emory University



Originally, my research focused on
engineering viruses to target
specific cell types for gene therapy
applications

Things began to change in 2008 when I
started experimenting with the
problem-solving studio (PSS)
approach to teaching engineering
courses

Now, my primary research focus is in
the learning sciences (diagrammatic
reasoning and the effect of **learning
environments** on engineering
students' approaches to learning)

And I'm your moderator...

Mary Besterfield-Sacre
University of Pittsburgh

Clickers

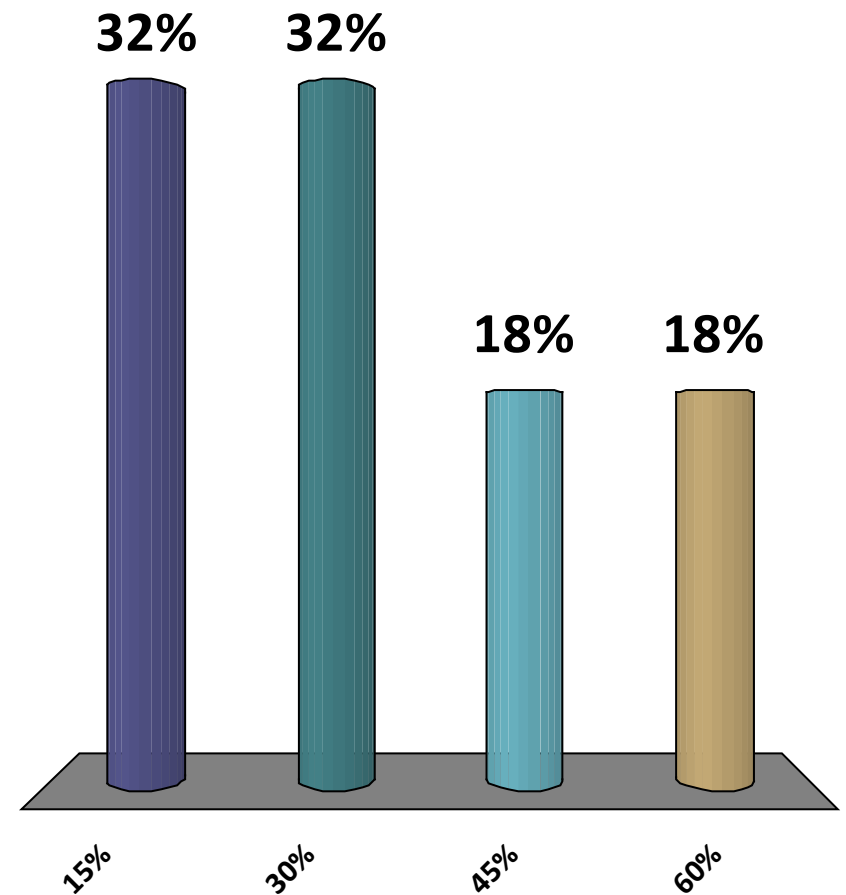
- **Set your channel to 24**

Let's start with a few warm-up questions...

A decorative graphic consisting of a solid teal horizontal bar that spans the width of the slide. Below this bar, on the right side, there are several horizontal lines of varying lengths and colors, including teal and white, creating a layered, stepped effect.

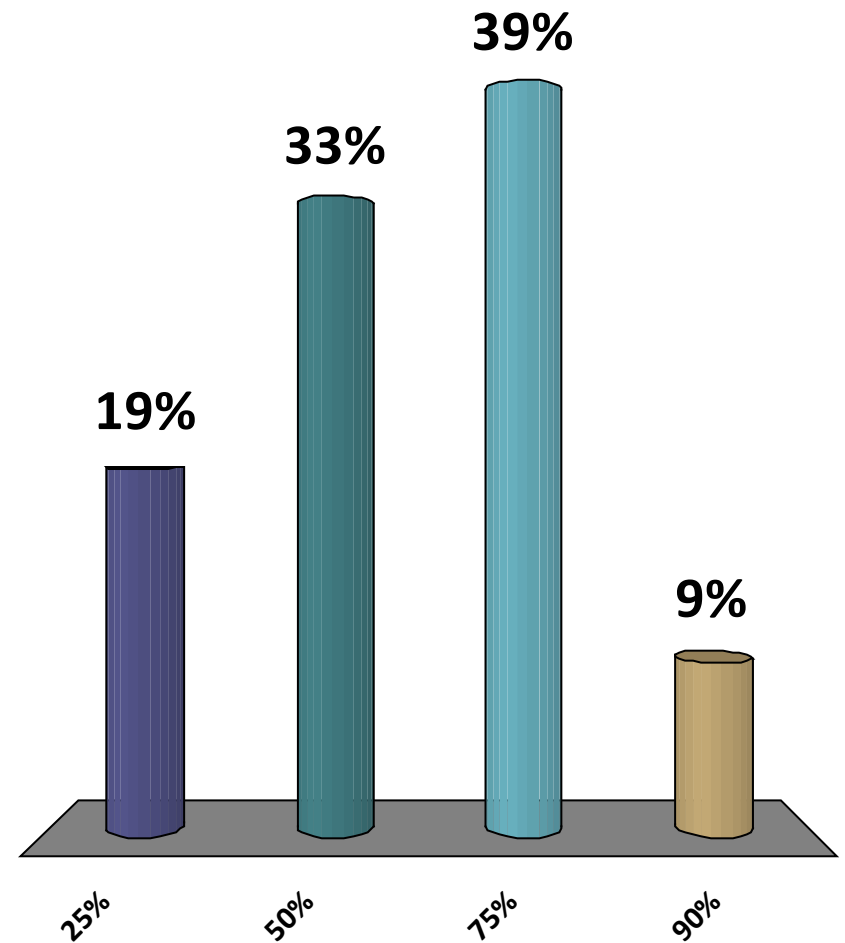
How many higher education students take at least one course online?

- A. 15%
- B. 30%
- C. 45%
- D. 60%



What is the percentage of students taking MOOCs who have at least a bachelors degree?

- A. 25%
- B. 50%
- C. 75%
- D. 90%



Now let's get to some meaty questions...

A decorative graphic consisting of several horizontal lines of varying lengths and colors (teal, light blue, white) extending across the bottom of the slide.

Rules of engagement for panelists

- 1. No fists-to-cuffs**
- 2. There are no other rules!**

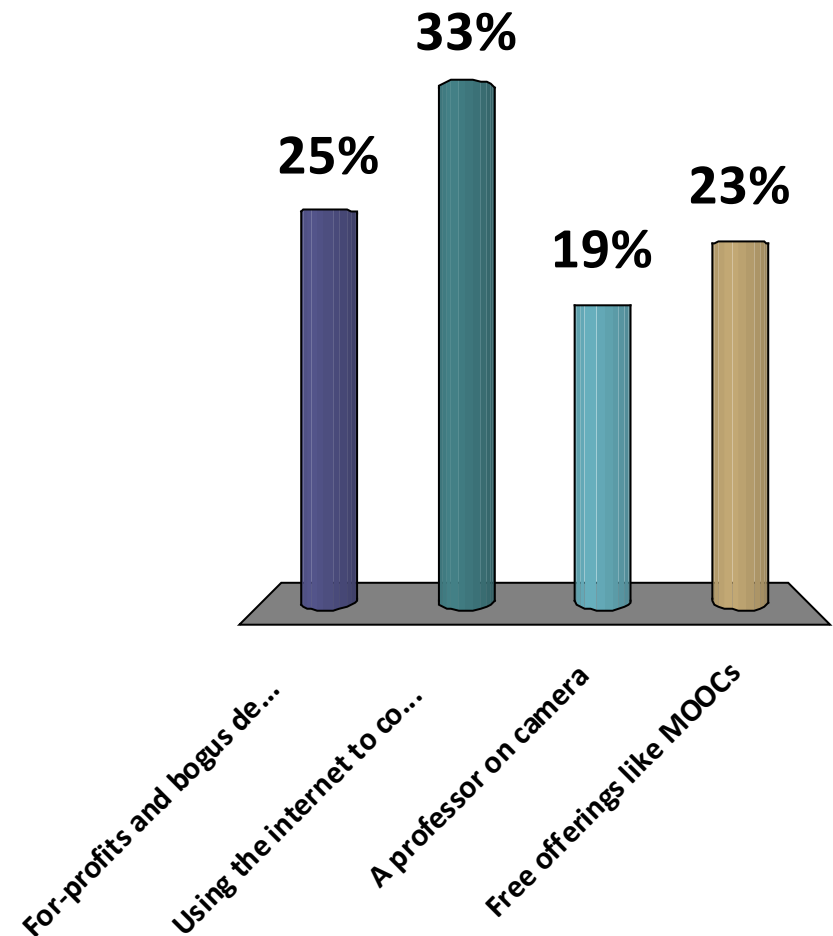


Rules of engagement for participants

- 1. During the session think of additional questions you may like to ask the panelists**
- 2. We'll hold an open forum at the end**

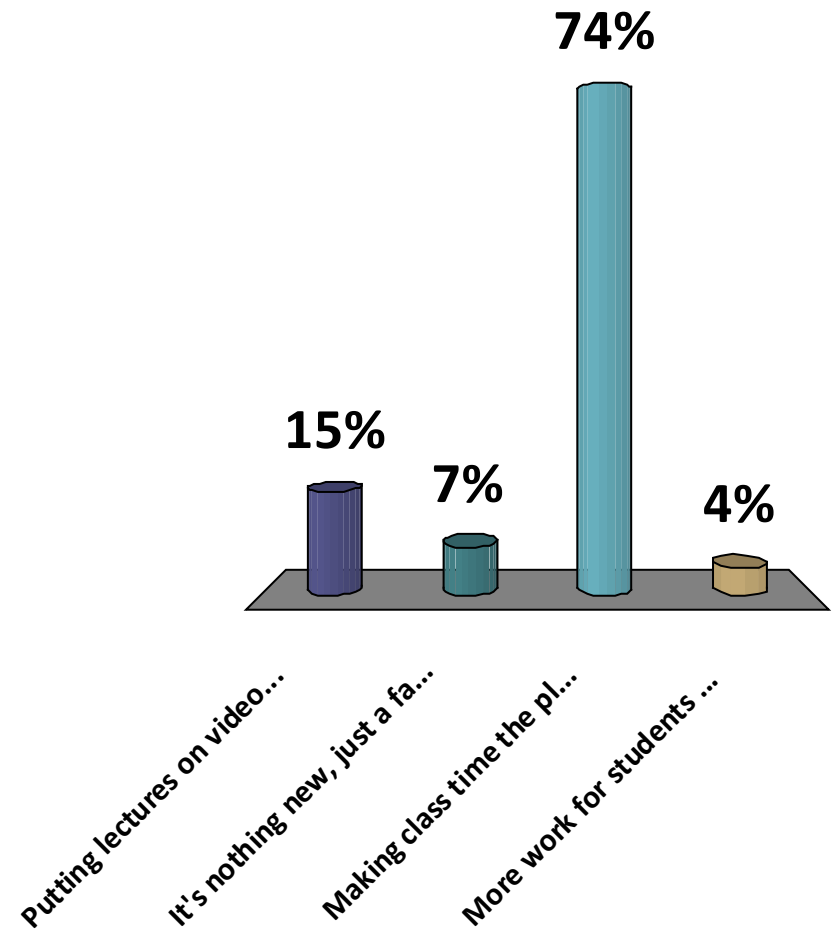
When you think of "online learning," what is the first thing that comes to mind?

- A. For-profits and bogus degrees
- B. Using the internet to connect learners
- C. A professor on camera
- D. Free offerings like MOOCs



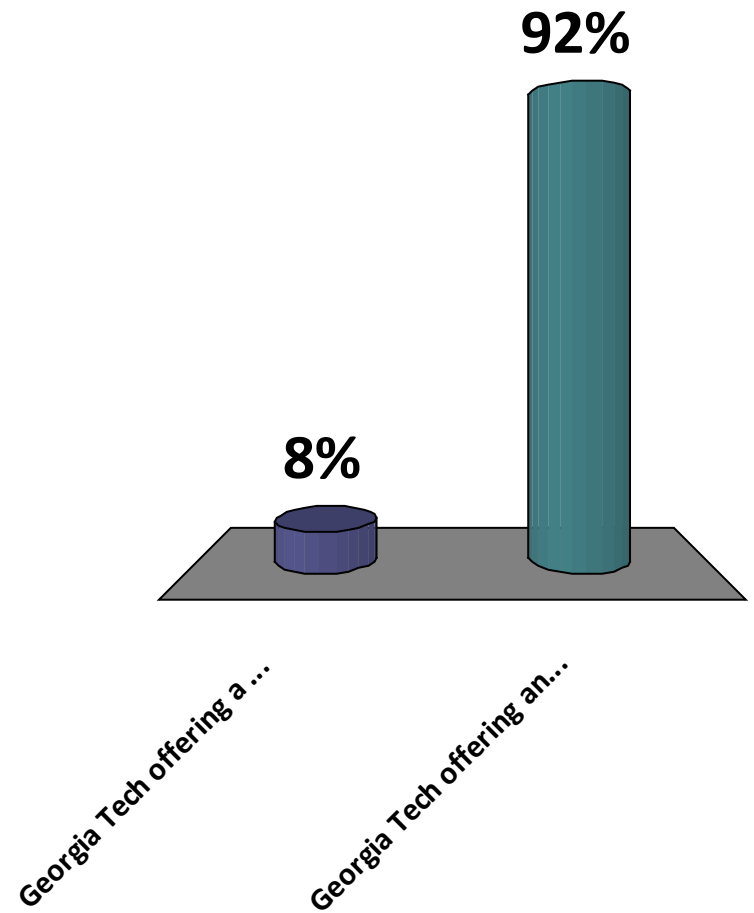
The flipped classroom has become a popular topic. What do you think it means?

- A. Putting lectures on video and not lecturing in class
- B. It's nothing new, just a fad to add technology
- C. Making class time the place where assimilation takes place
- D. More work for students and professor alike



In your opinion, which of the following provides a higher quality education?

- A. Georgia Tech offering a \$7000 MOOC degree
- B. Georgia Tech offering an on-campus experience degree for \$40,000



What are your questions?

Open forum to ask panelist
questions...