



# **Using the Virtual Environment to Link Teaching and Learning: A Trip to the (Virtual) Zoo**

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University of California, San Francisco

July 2013

**Let's try this again...**



# The Cool Wall

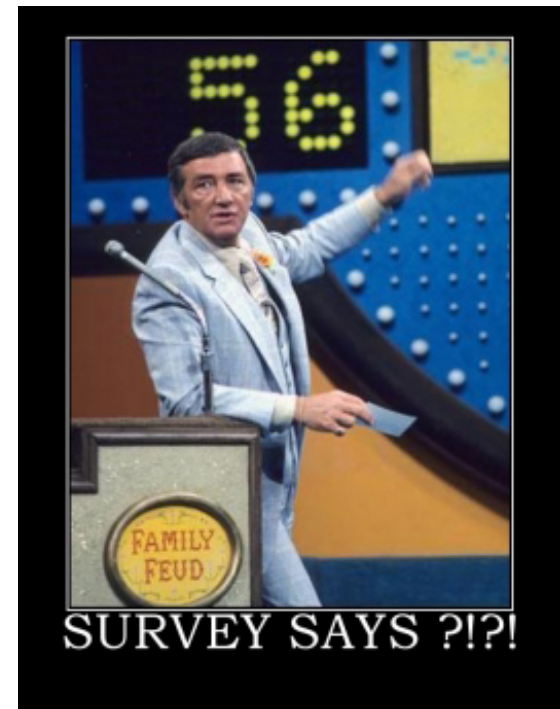
- Please note & rate at least one experience/activity/speaker/discussion point/quote/meal/etc. from the conference:
  - Seriously Un cool
  - UN COOL
  - COOL
  - SUB-ZERO (ideal)



# Objectives

- By the conclusion of this session, the engaged participant will be able to:
  1. Describe ways to use virtual environments to optimize adult learning strategies
  2. Discuss how holistic curricular management informs both teaching and learning
  3. Identify disruptive technologies that may serve to bridge teaching and learning for interprofessional education

# Why the zoo?



# The ONE thing that **ENGAGES** today's learner most in a given situation...

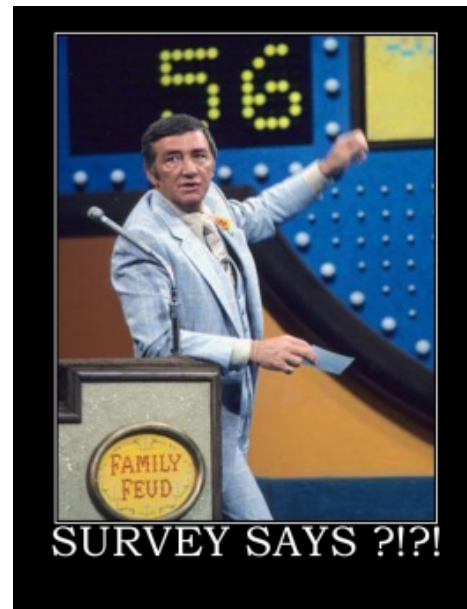
## Learners said...

1. **Relevance** to pharmacy in general (41%)
2. Teacher's enthusiasm/passion (28%)
3. **Interactive** exercises (11%)
4. **Connection** to other subjects /tasks (9%)
5. Intensity of own interest in subject (9%)

## Teachers said...

1. Teacher's enthusiasm/passion (31% )
2. **Relevance** to pharmacy in general (29%)
3. **Interactive** exercises (16%)
4. **Connection** to other subjects/tasks (11%)
5. Intensity of own interest in subject (10%)

# Why the zoo?





# What motivates adult learners?



**RELEVANCE**  
(elephants)



**ENGAGEMENT**  
(doves)



**CONNECTIONS**  
(butterflies)



# Map of our zoo

EFFICIENCY



INNOVATION

# EFFICIENCY side

- Ideally, you build this side first
- Activities generally occur INSIDE the box
- Home of slow-moving animals
  - Sloths
  - Tortoise
  - Banana slugs
- Must protect them from the headless monster?!

**EFFICIENCY**

[illegible]

# Collaborative Learning Environment (CLE)

Curricular  
management



Curricular  
delivery



Assessment



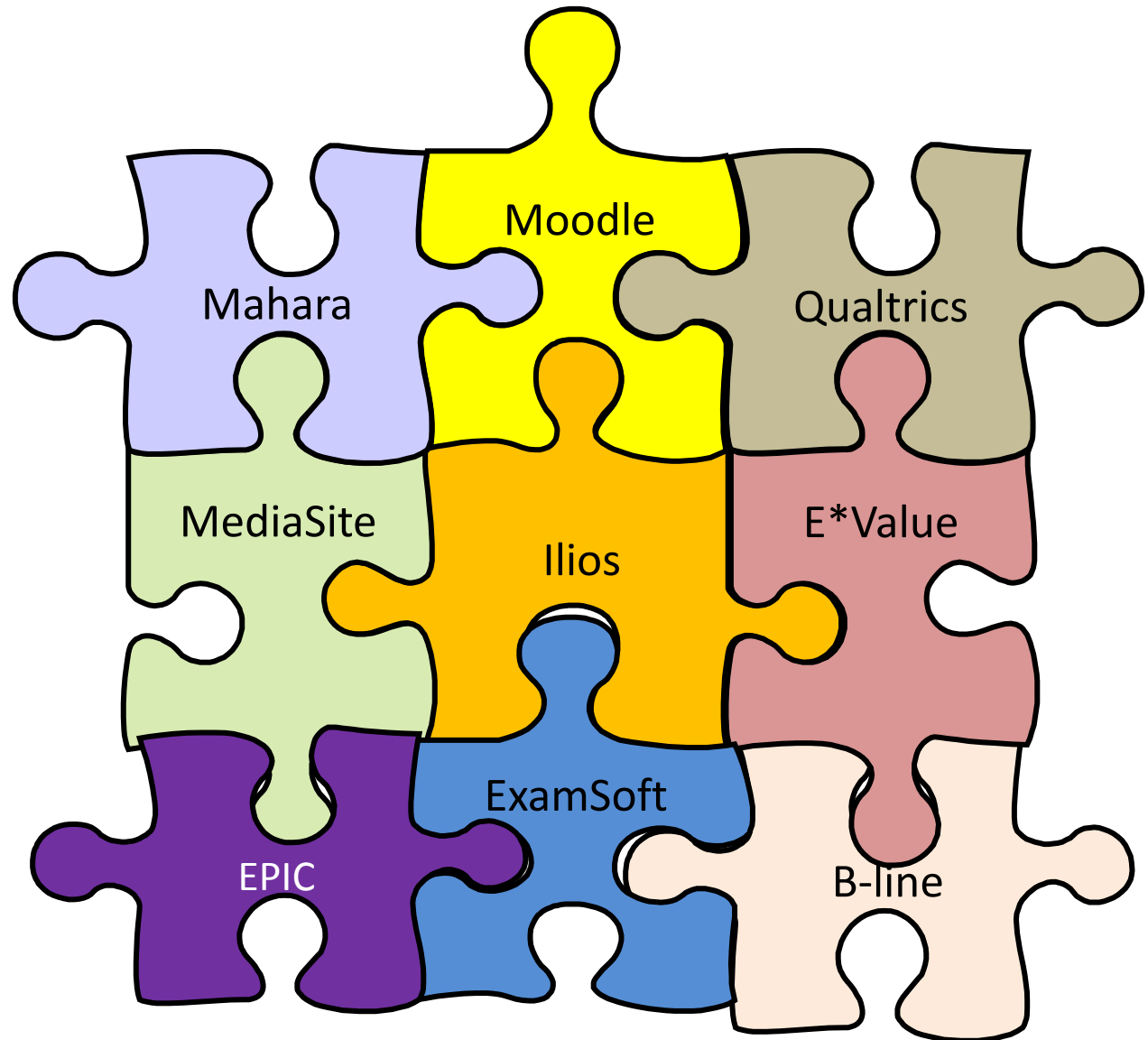
Evaluation



CPD



Practice-based  
systems



# Students – The *Learning* Dashboard

- What is this course about and how does it relate to my degree? (course summary)
- What do I do today/this week? (calendar)
- What will I learn in class? (session details)
- What are my assignments? (learning materials)



# Course Directors – The *Management* Dashboard

- How do I visually organize my courses & activities?  
(course & program administration)
- How do I manage my learning materials?  
(learning materials/digital asset management)
- How can I track and manage my learners?  
(student management & scheduling)
- Where & how is my discipline taught in other  
courses/sessions/pathways?  
(*intraschool* collaborations)



# Administrators – The *Leadership* Dashboard

- What % of our sessions are lecture-based? (reports & analytics)
- In which courses, do we teach about health care delivery systems? (accreditation standards)
- What % of our core curriculum maps solely to scientific & clinical foundations, 1 of 6 total domains? (programmatic outcomes; resource allocation)
- How is pharmacology addressed in SOP vs SON, SOD and DPT? (*interschool* collaborations)





# Ilios

[Home](#)[Programs](#)[Instructors](#)[Learner Groups](#)[Courses and Sessions](#)

UCSF School of Medicine

Sascha Cohen Last Login: March 7, 2013 10:58 PST [Logout](#)

Select School to View ▼

## Educator Dashboard

[Switch to Student View](#)

### Calendar

Current Filters : 2012-2013

	Mar 3, Sun	Mar 4, Mon	Mar 5, Tue	Mar 6, Wed	Mar 7, Thu	Mar 8, Fri	Mar 9, Sat
08:00		08:00 - 10:00 S-163: GI/Med SG2: Ms. Maureen Mahoney	08:00 - 10:00 HSW 300: Liver Physiology	08:00 - 09:00 HSW 300: Clinical	08:00 - 09:00 Do Not Delete -	08:00 - 09:00 TBI Proj Low GI Trax	
09:00					09:00 - 10:00 HSW 300: Ethical	09:00 - 10:00 TBI	
10:00		10:00 - 11:00 HSW 300:	10:30 - 12:00 HSW 300: Introduction to	10:00 - 12:00 S-163: GI/Med SG3: Ms. Carrie Donner / Ms. Ida Boyle	10:00 HSW	10:00 S-163: Liver SG1: HSW	10:00 S-464 Low GI
11:00		11:00 - 12:00 HSW 300: Normal					
12:00							
13:00		13:00 - 14:00 LR213: UTI	13:00 - 14:00 K TBD: Project	13:00 - 18:00 Kanbar Clinical Skills Center: Adult Physical Exam Review	13:00 - 14:00 S664: GI Anatomy Lab 3: GI Bl/Pancreas/A		
14:00		14:00 - 15:00 LR213: Periop	14:00 - 15:00 TBD:		15:00 - 16:00 S-664: FPC GI Anatomic Small Group		
15:00			15:00 - 16:00 N-15: GI SG1: FPC				
16:00			16:00 - 17:00 N-15: GI SG1: FPC				
17:00	17:30 - 18:30 LR213 A888:						
18:00							
19:00							
20:00							
21:00							
22:00							

### Recent Activities

- [Major Organ Systems 2012-13 - Cough and Dyspnea](#) (Mar 5 2013, 10:27 a)
- [Major Organ Systems 2012-13](#) (Mar 5 2013, 10:25 a)
- [Major Organ Systems 2012-13](#) (Mar 5 2013, 10:23 a)
- [Default Group Number 3 1](#) (Mar 4 2013, 10:54 a)
- [Default Group Number 3 2](#) (Mar 4 2013, 10:54 a)

### My Courses

### My Programs

### My Reports

[Add New](#)

- ☒ All Lectures by Course
- ☒ All Small Group Instructors
- ☒ All competency for Major Organ Systems 2012-13
- ☒ All session for Ethics, Medical
- ☒ All learning material for Metabolism and Nutrition 2013
- ☒ All competency for Psychiatry 110 Core Clerkship
- ☒ All session for Topfstedt, Stefan
- ☒ All competency
- ☒ All competency for Discussion, Small Group (<=12)

### Administration

- [Archiving](#)
- [Course Rollover](#)
- [Open Management Console](#)

### My Alerts

[Add New](#)

- 1:00 PM Dentistry Training... (late)
- Demo for UNE (late)

# Collaborative Learning Environment (CLE)

Curricular  
management



Curricular  
delivery



Assessment



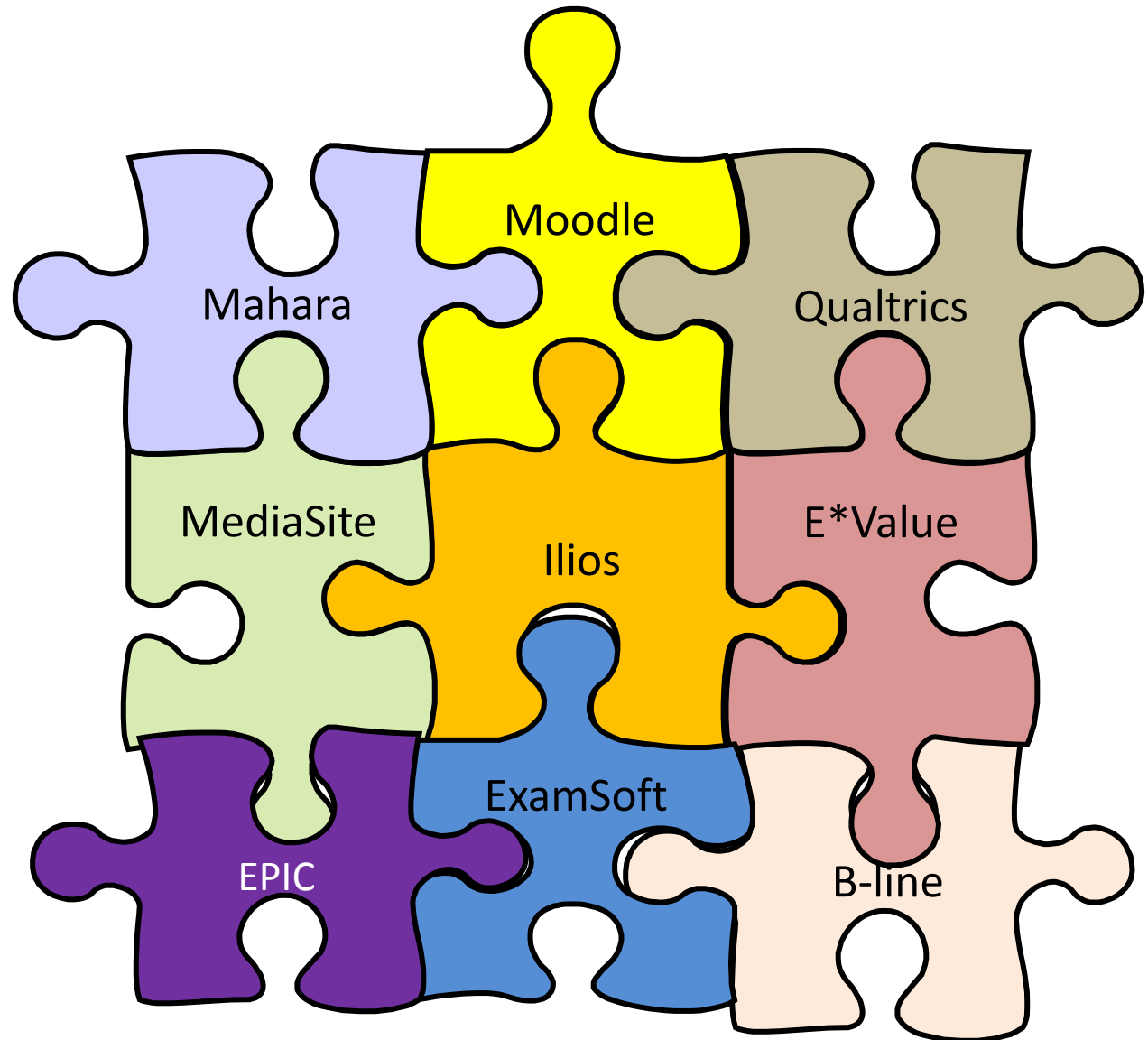
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CPD



Practice-based  
systems



# Results from Year 2

- All (55) core didactic courses have mapped learning objectives
- User interface improvements
- Staff and students can query the system
  - One scientist identified 70% unintentional overlap with another course.
  - One clinician used the information to submit an educational grant – and was funded!
- We have a better idea of where resources are needed/wasted and how to address this in our pending curriculum redesign

# Task-shifting

- A school of clownfish is always built into a hierarchy with a female fish at the top. When she dies, the most dominant male changes sex and takes her place.
- The CLE project has helped us to better define and communicate the responsibilities of course directors.
- It has also helped us advocate for a stronger, centralized model of educational staff support.



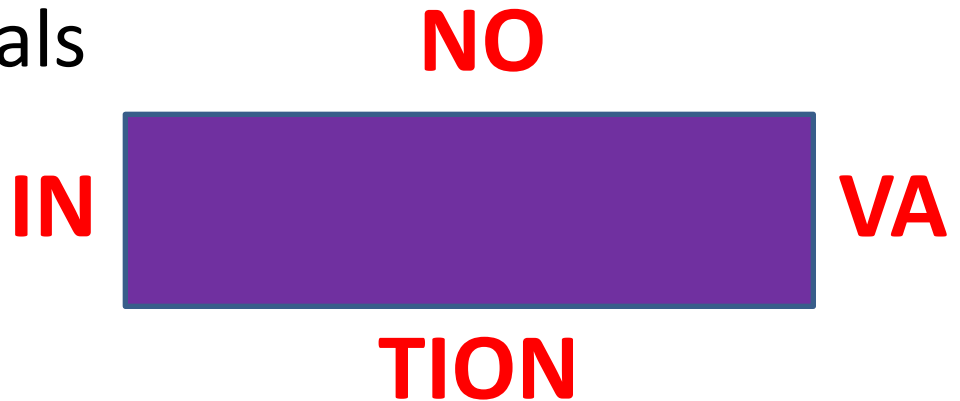
# Beware of honey badgers...



***They have no regard for any other animal.***

# INNOVATION side

- Can further inform efficiency
- Occurs OUTSIDE the box
- Home of faster animals
  - Cheetah
  - Antelope
  - Marlin
- Difficult to sustain fast movement for long periods



# Why pay tuition when you can get the MOOC for free?

- Massive(ly) Open Online Courses
- “MOOCs are likely to be a game-changer, opening higher education to hundreds of millions of people.” – *New York Times*, July 2012
- Controversial – but clearly a disruptive technology and we can probably learn a lot from studying them
- 3 initial players in US

The Coursera logo, featuring the word "coursera" in a blue, sans-serif font with a stylized infinity symbol at the beginning.The Udacity logo, consisting of a large orange "U" above the word "UDACITY" in a smaller orange, sans-serif font.The edX logo, featuring the letters "ed" in a grey, sans-serif font followed by a large blue "X" with a stylized design.



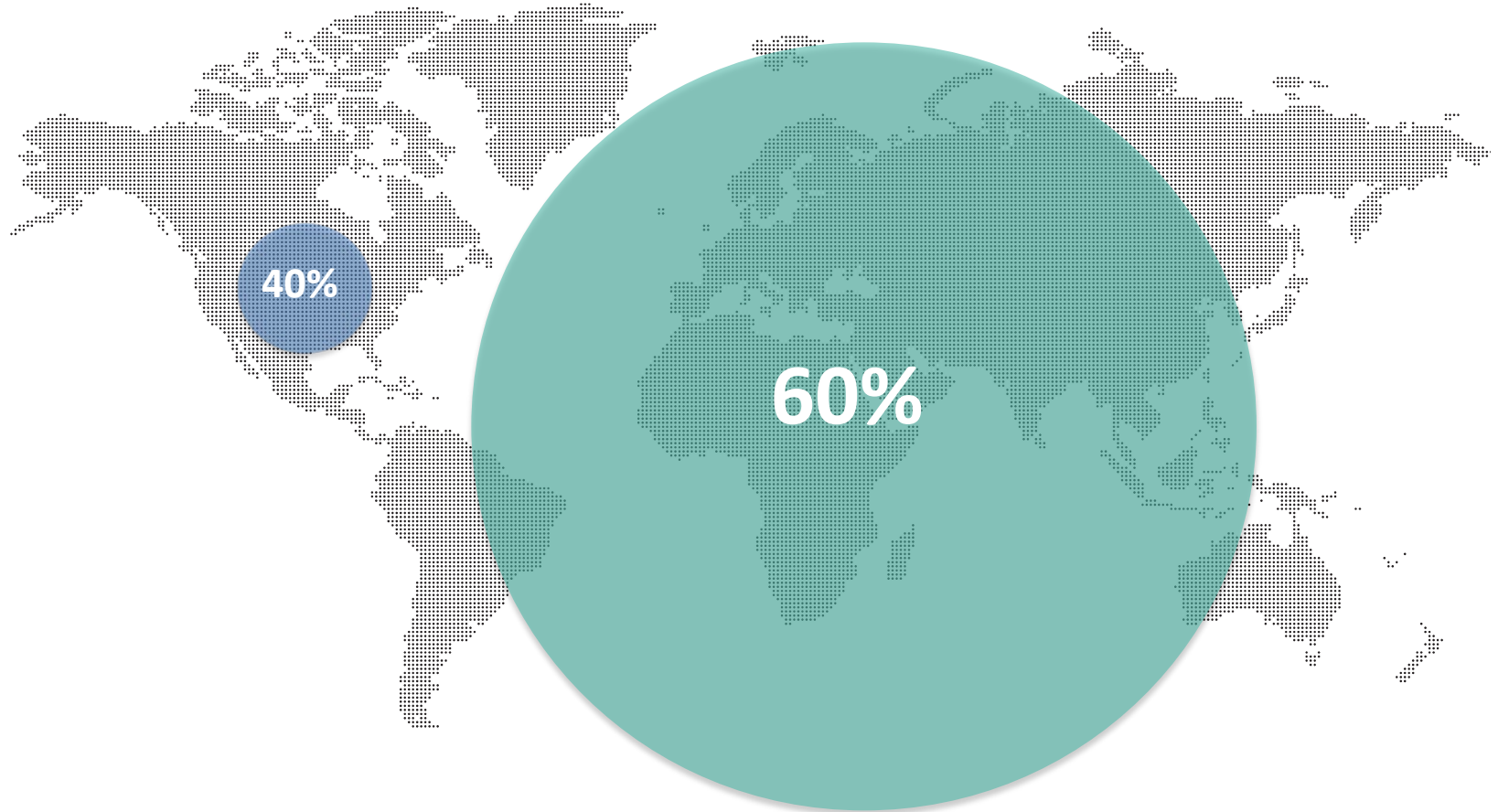
# A veritable stampede!



# Quick decisions

- Who's on the team?
- How can we support the faculty?
- Where's the money coming from?

# What were our results?



**>100,000 learners from 160 countries**

# Commitment:Completion



7%  
completion



34%  
video



44%  
quiz



62%  
peer eval

# Distractions







## University of California, San Francisco

The University of California, San Francisco, is dedicated to promoting health worldwide through advanced biomedical research, graduate-level education in the life sciences and health professions, and high-quality patient care. UC San Francisco is the only campus in the University of California system dedicated exclusively to the health sciences. UCSF's innovative, collaborative approaches for health care, research and education span disciplines across the health sciences and make it a world leader in scientific discovery and its translation into improved health.



**Nutrition for Health Promotion and Disease Prevention**  
Jun 24th 2013



**Carries Management by Risk Assessment (CAMBRA)**  
Aug 26th 2013



**Contraception: Choices, Culture and Consequences**  
Sep 9th 2013



**Diabetes: Diagnosis, Treatment, and Opportunities**  
October 2013



**Clinical Problem Solving**  
Date to be announced.



**John Featherstone**  
Dean and Professor  
School of Dentistry



**Katie Ferraro**  
Assistant Clinical Professor  
Graduate School of Nursing



**Joseph Guglielmo**  
Dean and Professor  
School of Pharmacy



**Lisa A. Kroon**  
Professor and Chair, Clinical Pharmacy  
School of Pharmacy



**Catherine R. Lucey**  
Vice Dean for Education  
School of Medicine



**Jerusalem Makonnen**  
Associate Clinical Professor  
Department of Family Health Care  
Nursing

## What we've learned so far:

- UCSF instructors really, really want instructional design support
- It is possible to repurpose the learning materials developed for Coursera for use in our traditional courses
- Many colleges have contacted us about licensing the materials

**facebook**

### Basic Information

**Relationship Status**

It's complicated

# Curious?

- Consider enrolling in a MOOC about...  
*Instructional Methods in Health Professions Education*
  - <https://www.coursera.org/course/instructmethodshpe>





**But don't miss the gorilla!**

