

# Building the Next Generation LMS from the Inside Out

Dr. Charles Severance  
University of Michigan School of Information  
Longsight, Inc.

ESUP Meeting – Paris – 06-Feb-2015





February 19, 2004 - Sakai All Hands Meeting @ Stanford

2/2007 - 2008, Chris Lutes wrote:

d Babi,

asure talking to you both during my travels recently - Chuck  
d Jeff & Babi via phone from Europe. As promised, I wanted  
e paper we just released on Blackboard & Standards as well  
to host a meeting at Blackboard with Chuck to discuss how  
going forward. Finally, the second link is to the Blackboard S  
roducts - I thought it might be of some interest. I look forw  
er with you each.

ards,

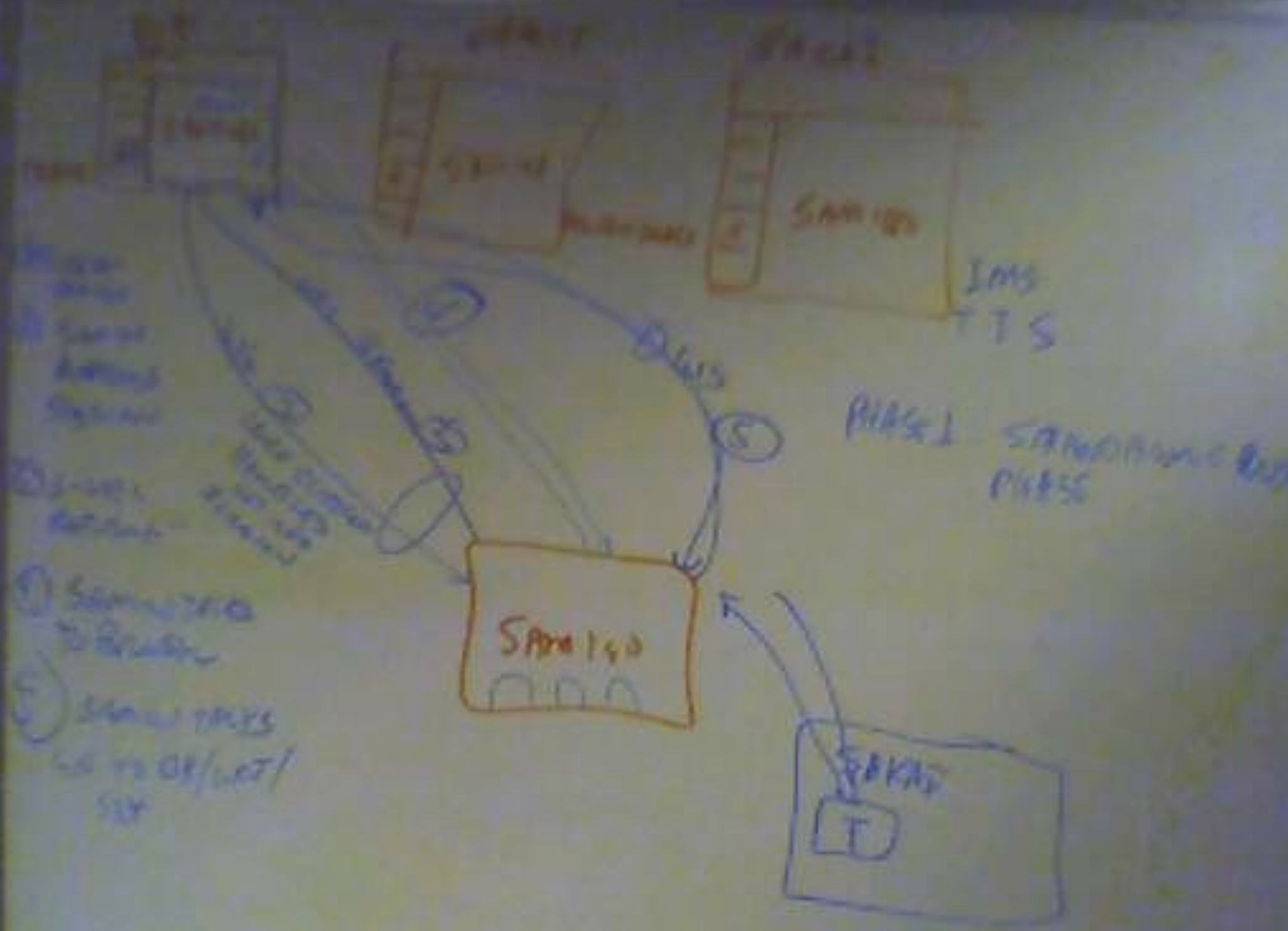
ettesse

or of Technology



Current trend in web-based systems for eLearning has been steadily towards increasing componentization and modularity. This trend is driven to a large extent by the desire for system deployers to easily enhance system functionality to support and effectively support the maturing demands of LMS. Notable examples are referenced here:

- Standard Building Blocks
- LMS Tool Portability Profile
- PowerLinks SDK



Brainstorming at IMS Meeting in Denver 2004-10-1

we have about 25 individuals (give or take) attending the SC  
ng on **4/27/2005** from 1-5 pm. This includes the Board (9). S  
his point, I'd rather not invite any more people.

Publishers Invited/Attending.....

, O'Reilly & Associates	-- ATTENDING
on, Pearson Education	-- ATTENDING
e, Thomson Higher Education	-- ATTENDING
n, Houghton Mifflin Company	-- ATTENDING
we, John Wiley & Sons, Inc.	-- ATTENDING
en, Intelcom	-- ATTENDING

Sinou

ce & Mediated Learning







June 21, 2005,  
IMS Alt-I-Lab Sheffield, UK

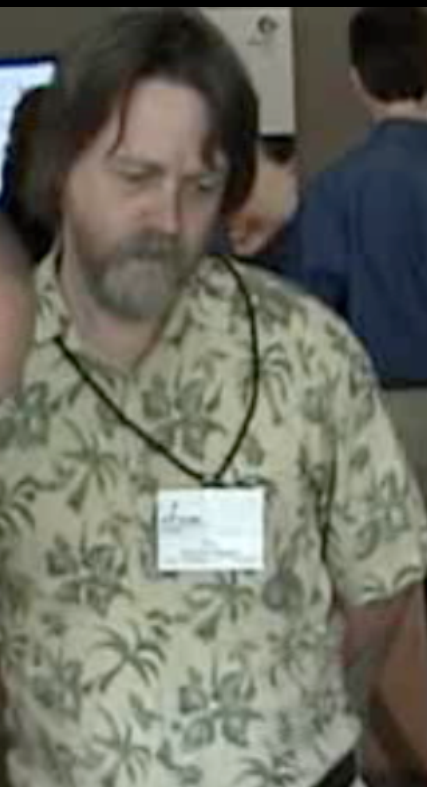




David Mills  
Angel Learning



Mike Farnesi  
Pearson Education



June 21, 2006  
IMS Alt-I-Lab  
Indianapolis, IN



Chris Vento  
Blackboard





# SAKAI: FREE AND FREEDOM (ALL)



A RETROSPECTIVE  
DIARY

CHARLES SEVERA



Daniel

## Site Information Display

?

[Options](#)

Ctools site for Daniel Zhou's sections for W09:

502-3 29193 Group Session | Th 9-10:30 am, 412 WH | (Daniel)

502-8 29512 Group Session | Th 6-7:30 pm, 331 DENN | (Daniel)

Home  
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Center  
ebook  
rchive  
ce Info  
Help



Escape from  
the LMS!!



Commercial

Tools  
Interoperability

Common  
Bridge



Publishing

LMS

Open Source

Standards







<http://www.youtube.com/watch?v=VY>





Success has a million parents...





# Sakai



azza  
UCLA Berkeley



# HAVE A CAMPUS STANDARD FOR LEARNING MANAGEMENT SYSTEM

45%



20%



11%



6%



5%



Blackboard

Moodle

Desire2Learn

Sakai

Instructure





# Summary

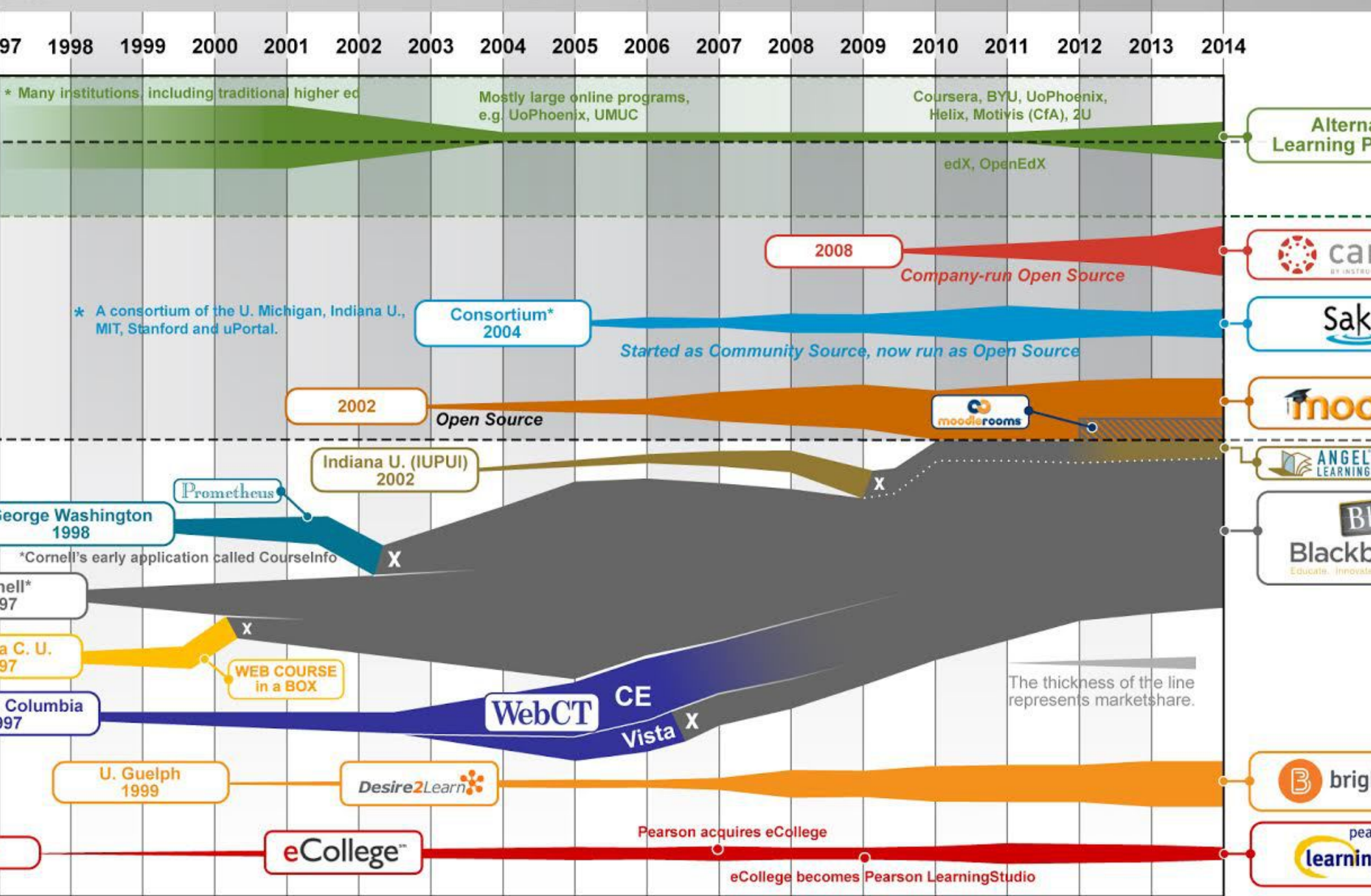
Sakai was essential to the past decade of progress in open standards for teaching and learning

Point: Sakai 2.9 has excellent support for IMS LTI and IMS Content Aggregation Box

Conclusion: We are in a great position to continue to lead the industry forward in the areas of portability and interoperability





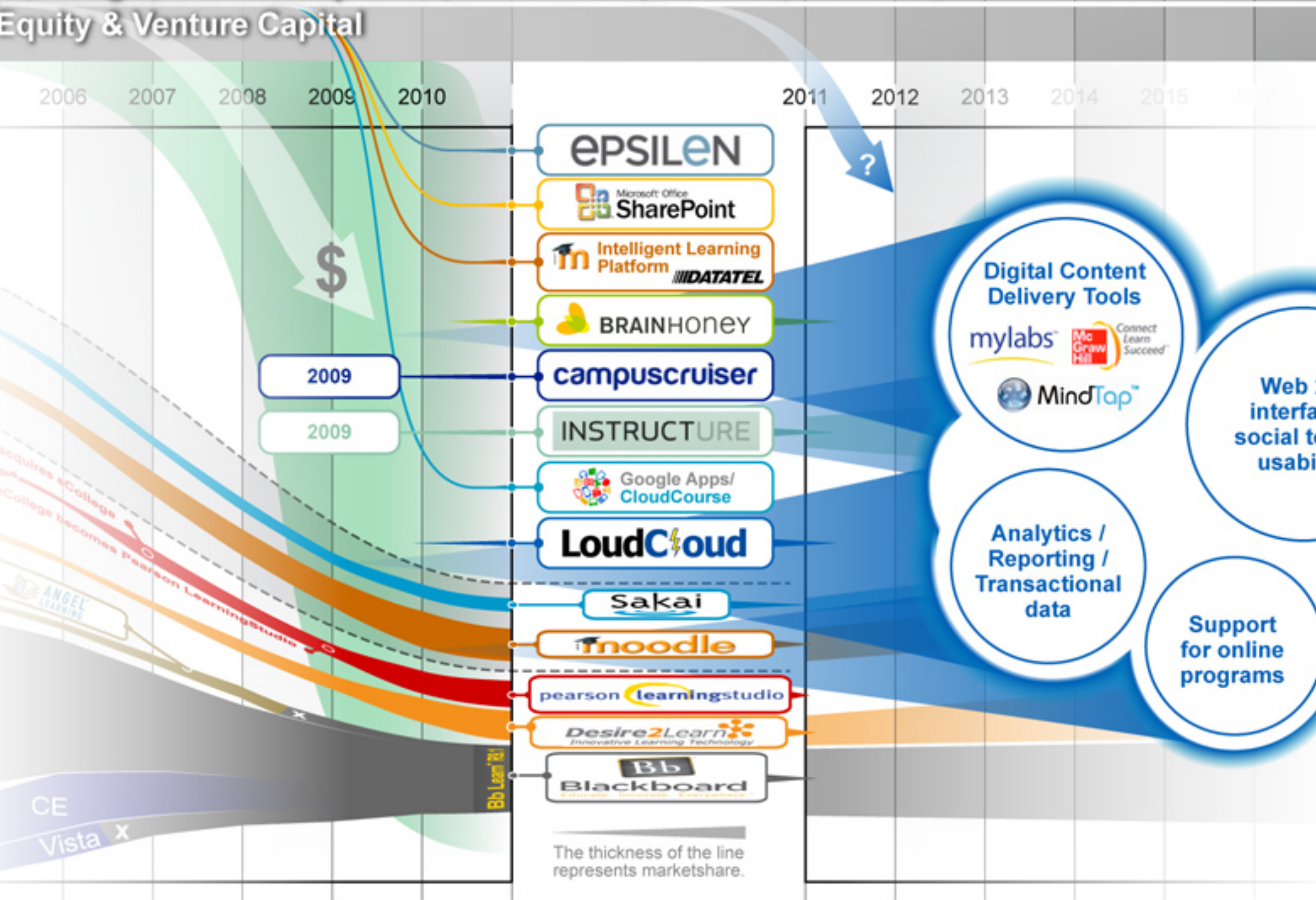


Key data from 2005 - 2009 from Campus Computing project <http://www.campuscomputing.net>,  
 2013-2014 data from Edutechnica <http://www.edutechnica.com>

\* Data prior to 2013 based on number of institutions; 2013 - 2014 data adjusted by total enrollment of those institutions.

Phil Hill (@PhilOnEdTech)

# Equity & Venture Capital



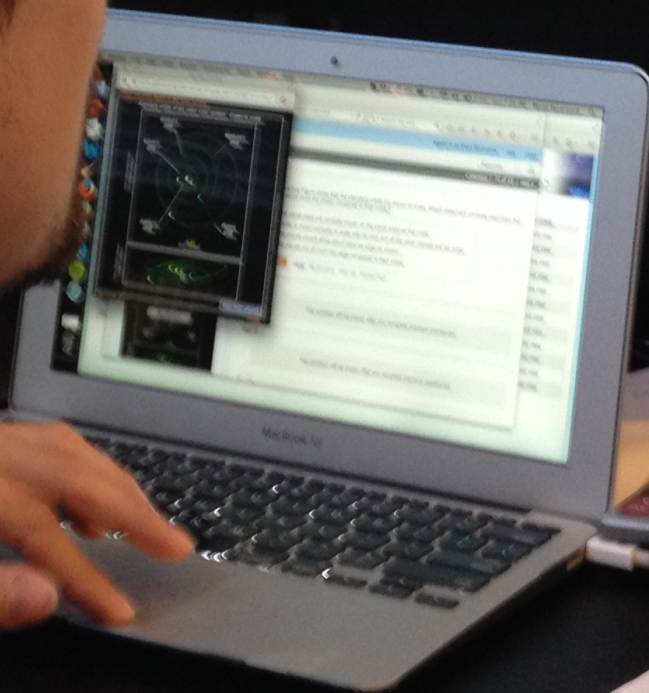
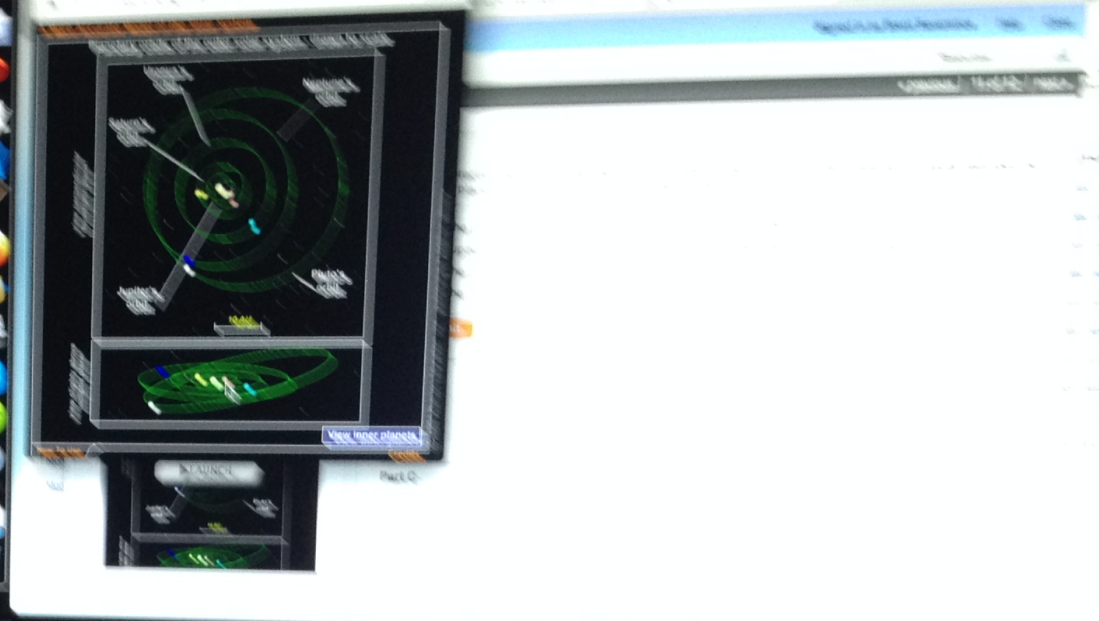
of these things is not like the ot

[www.masteringphysics.com](http://www.masteringphysics.com)

[www.masteringastronomy.com](http://www.masteringastronomy.com)

[www.masteringpython.com](http://www.masteringpython.com)







[Edit Course Description](#) [Edit Session Descriptions▾](#) [Edit Session](#)



# Programming for Everybody (Python)

This course aims to teach everyone to learn the basics of programming computers using Python. The course has no pre-requisites and avoids the simplest mathematics. Anyone with moderate computer experience should be able to master the materials in this course.



## About the Course

This course is specifically designed to be a first programming course using the Python programming language. The pace of the course is designed to lead to mastery of each of the topics in the class. We will use simple data analysis as the programming exercises through the course. Understanding how to process data is useful for everyone regardless of your career. This course might kindle an interest in advanced programming courses or courses in web design and development to provide skills when you are faced with a bunch of data that you need to analyze. You can do the programming assignments for the class using a web browser or using your personal computer. All required software for the course is

## Sessions

Oct 6th 2014 - Dec 15th 2014

[Join for Free](#)

## Eligible for

[Verified Certificate](#)

[Statement of Accomplishment](#)

## Course at a Glance



& Events

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pective faculty

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## New MOOC will be first to “create more teach



A new massive open online course on the Python programming language taught by UMSI Clinical Associate Professor Charles (Chuck) Severance

Overview

**Reach**

Engagement

Content

Polls

Classic Tools

127,932

total learners joined

206

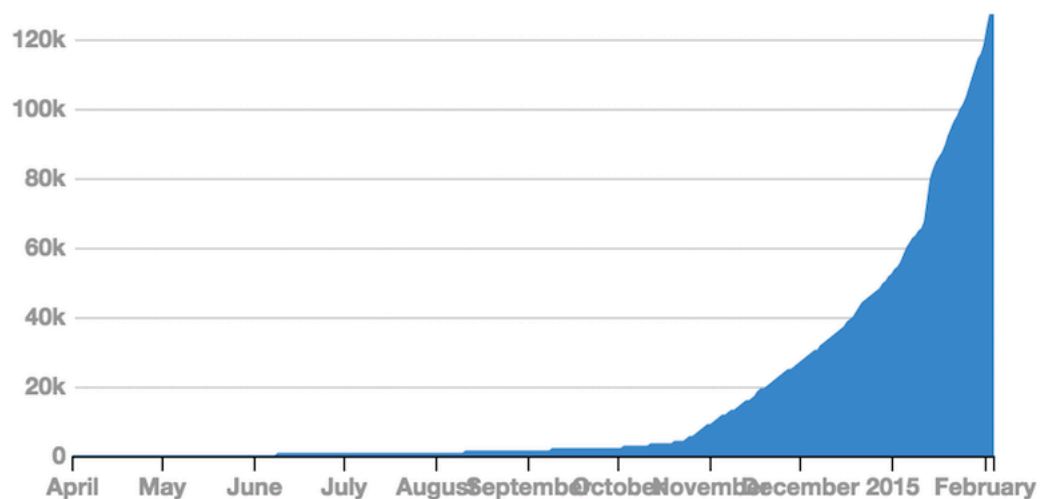
different countries

46,228 (36%)

from emerging economies

## Enrollment

Cumulative enrollment over time



## Institutional Brand Awareness

[Learn more about how brand awareness is measured »](#)

Formally affiliated with your institution



Familiar with your institution



Heard of your institution



Not heard of your institution

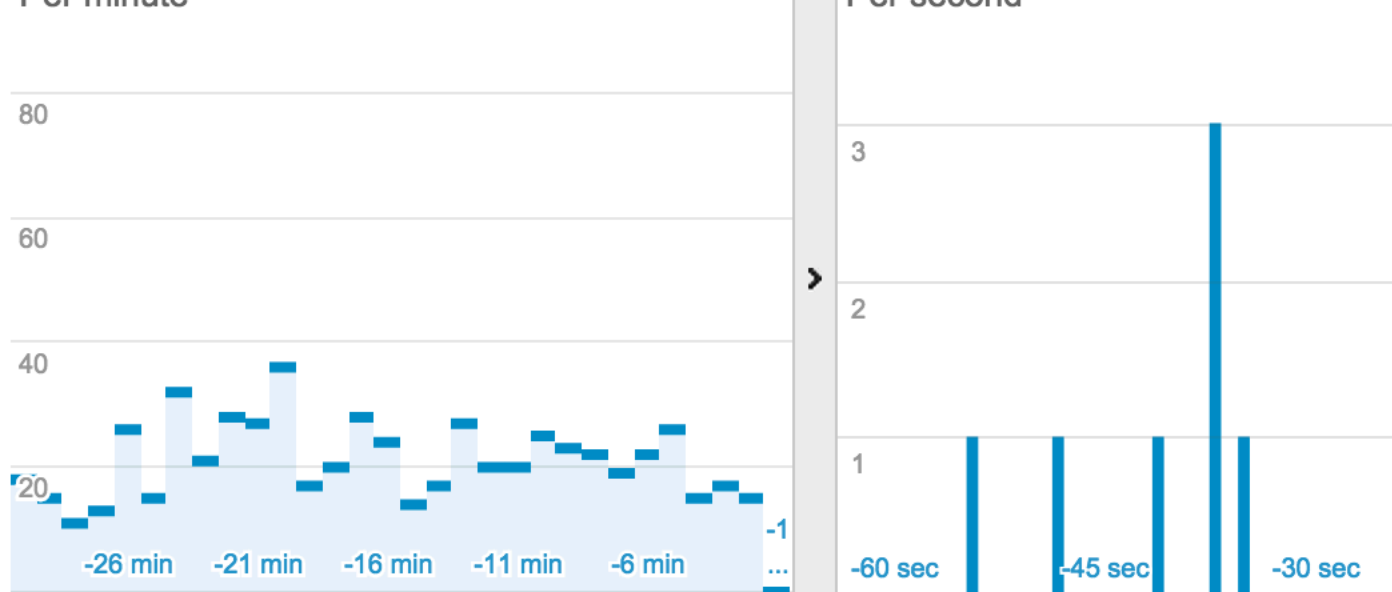


Values extrapolated based on responses from 33,911 learners. [Learn more](#)

Right now

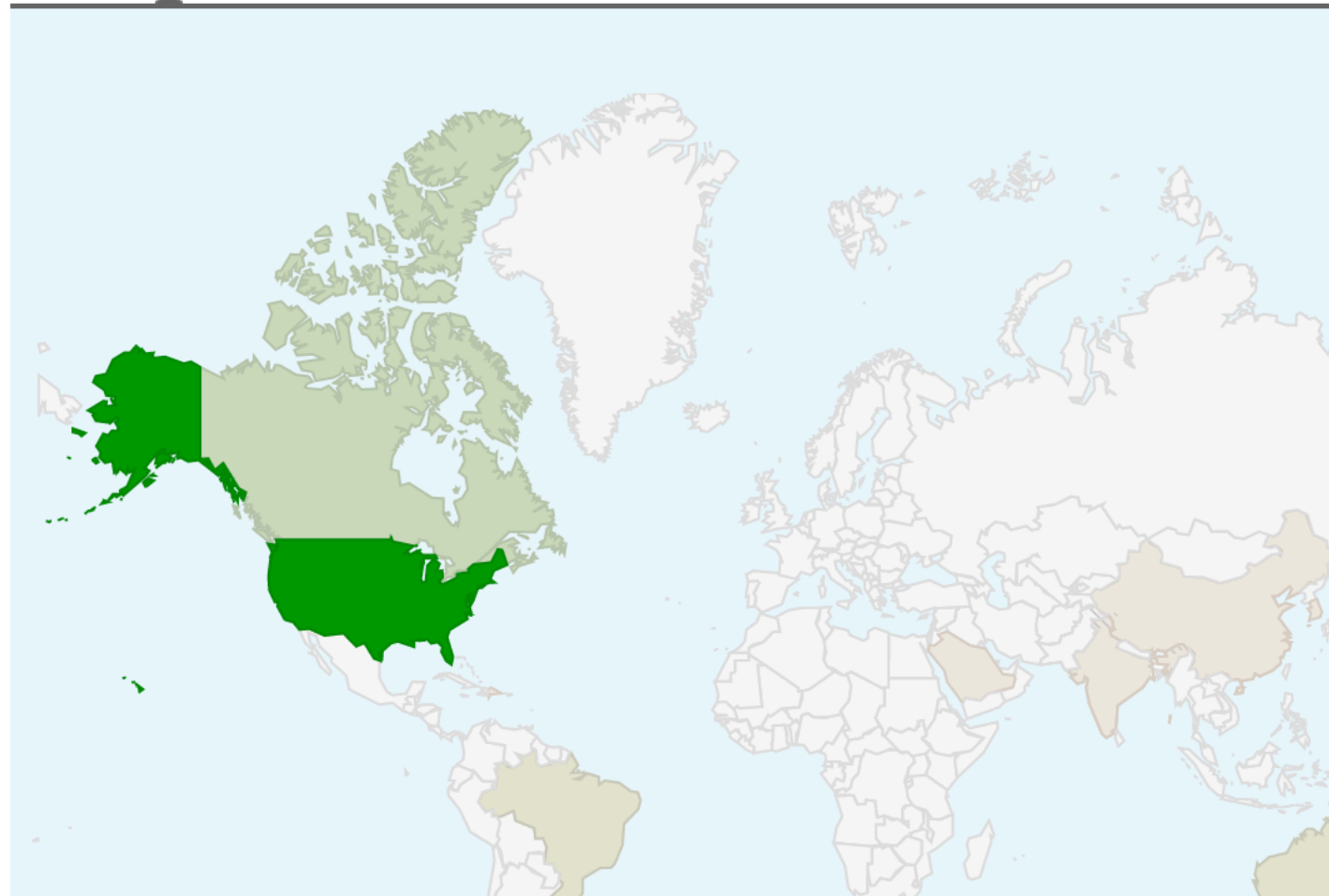
# 52

active users on site



Viewing: **Map** Earth

Total: 52			<input type="text"/>	<input type="button" value="Q"/>
Country		Active Users ↓		
United States	33	63.46%		
Canada	6	11.54%		
Australia	3	5.77%		
Brazil	3	5.77%		
China	1	1.92%		
Dominican Republic	1	1.92%		
Ghana	1	1.92%		
India	1	1.92%		
Puerto Rico	1	1.92%		
Saudi Arabia	1	1.92%		





a program to prompt the user for hours and rate per hour  
\_input to compute gross pay. Award time-and-a-half for  
rate for all hours worked above 40 hours. Put the logic to  
computation of time-and-a-half in a function called  
**pay()** and use the function to do the computation. The  
should return a value. Use 45 hours and a rate of 10.50 per  
st the program (the pay should be 498.75). You should  
**input** to read a string and **float()** to convert the string to a  
Do not worry about error checking the user input unless  
to - you can assume the user types numbers properly.

[Reset Code](#) [Info](#) [Done](#) [View Grades](#)

```
def computepay(h,r):  
    return 42.37  
  
raw_input("Enter Hours:")  
computepay(10,20)  
"Pay",p
```

#### Desired Output

498.75

# Emerging Learning Systems

E – 10:30

a – 11:15

Cast – 13:45

– [www.tsugi.org](http://www.tsugi.org)

Craft – [www.gradecraft.com](http://www.gradecraft.com)

ch - <http://sitemaker.umich.edu/ecoach/home>

## Norman's Law of eLearning Convergence

Learning tool, no matter how  
designed, will eventually  
be indistinguishable from a  
Management System once a  
critical mass of supported use-cases has  
been reached.









LMS



Sakai

GradeCraft

opencast

KARUTA  
OPEN SOURCE PORTFOLIO

Xerte

MyMathLab<sup>®</sup>

coursera

MasteringPhysics<sup>®</sup>

???

piazza  
PRINCETON UNIVERSITY UCLA Berkeley





???

# Open Source



Learning Platform must be a cooperative eco  
Learning Systems must avoid becoming just another  
Learning Systems will slowly change LMS systems  
Open source is key

