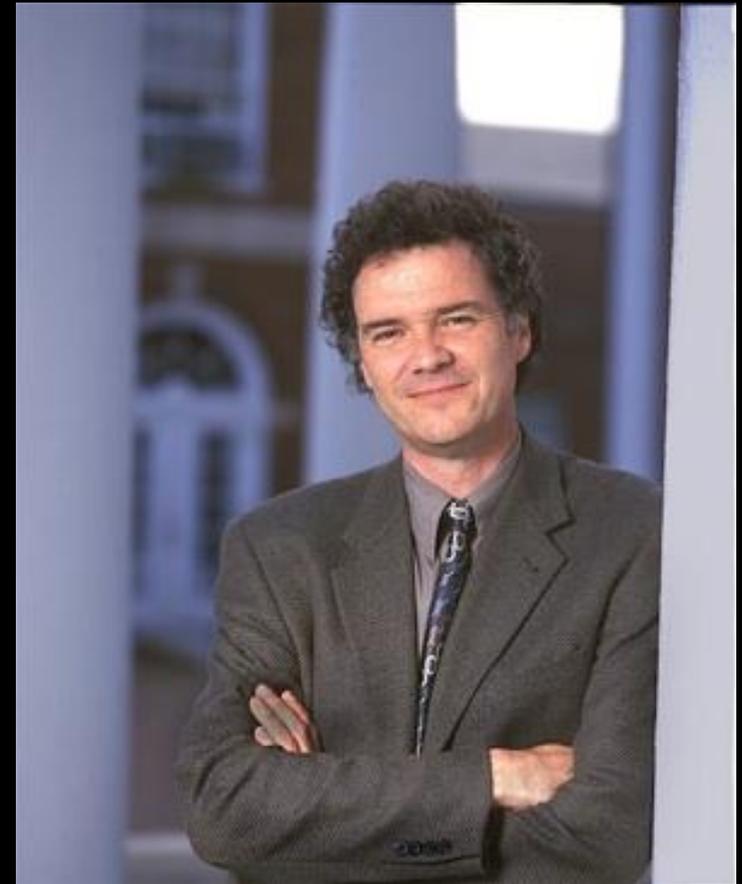


Why Technology Hasn't Paid Off as We Had Hoped--Yet

In most fields—particularly in the humanities, social sciences, and the arts—the more elite the scholar and the institution in which she or he works, the less likely the scholar is to take advantage of the major technological and social change of our time. In other words, the greater the potential resources at their command, the less interest many faculty seem to express in integrating new technologies into their teaching and scholarship.” (2003)



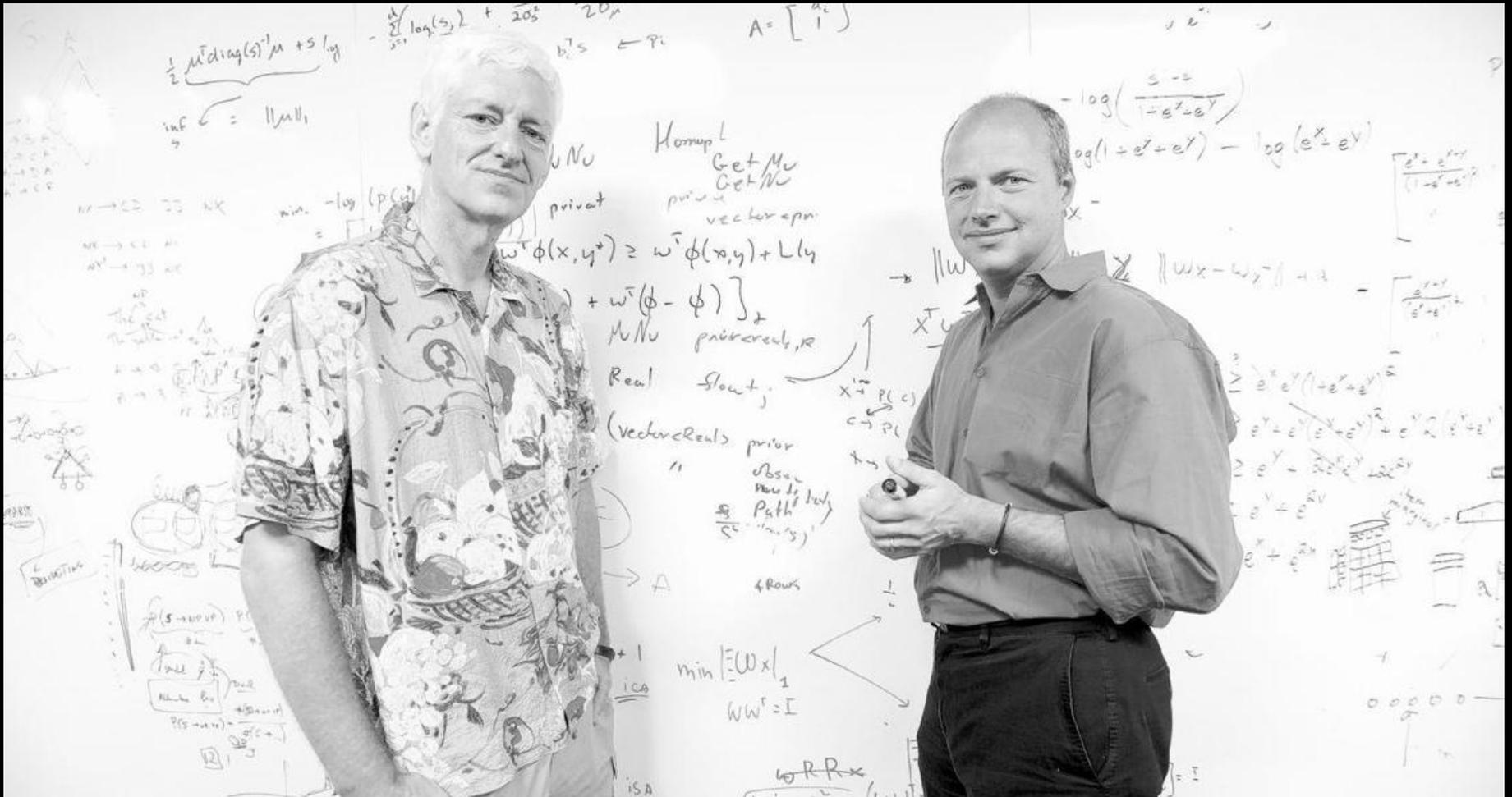
Ed Ayers
University of Richmond



Self-Driving Car Inventor and Part-Time Tenured Professor



Hedge Fund Analyst and Part-time Algebra Tutor



$$\frac{1}{2} \mu^T \text{diag}(s)^{-1} \mu + s \log$$

$$\inf_{\mu} = \|\mu\|_1$$

$$-\sum_{s=1}^n \log(s) + 20s \quad 20\mu$$

$$A = \begin{bmatrix} a_{11} \\ \vdots \\ 1 \end{bmatrix}$$

KOMPUL
Get Mu
Get Nu
vector opn

$$\omega^T \phi(x, y^*) \geq \omega^T \phi(x, y) + L(y$$

$$+ \omega^T (\phi - \phi)) +$$

Real slow;

(vector Reals) prior
" Obs
new to bay
Path bay
(y)

A

$$\min \|Wx\|_1$$
$$Ww^T = I$$

WRRx

$$-\log\left(\frac{s-z}{1+e^z+e^y}\right)$$

$$\log(1+e^z+e^y) - \log(e^z+e^y)$$

$$\|W\| \quad \|Wx - Wx'\| + z$$

$$x \rightarrow p(c)$$

$$c \rightarrow p(x)$$

$$\frac{1}{\epsilon}$$

$$\frac{e^z + e^y}{(1+e^z+e^y)^2}$$

Introduction to Artificial Intelligence

Offered by Professors Sebastian Thrun and Peter Norvig

Oct - Dec 2011. Sign up now at ai-class.org

This course is the online version of Stanford CS211 Introduction to Artificial Intelligence. Students can sign up and take this course for free. All lectures are offered online, and students will have to take the same homework assignments and exams as Stanford students taking CS221 on campus. Anyone taking this course can interact with the instructors online. Plus, students are graded the same way as Stanford students, so you can compare your skills and knowledge to Stanford advanced undergraduate and graduate students. Enroll (for free) and learn about AI from two of the pioneers in the field. The course starts Oct 2, 2011. Sign up now at <http://ai-class.org>.

Stanford AI Class

- 5,000 Signed up first night
- After 80,000 the Dean called.
- 160,000 Total enrollments
- 35,000 Completed the course.
- 23,000 Passed
- 248 Got perfect scores.



Andrew Ng and Daphne Koller

Machine Learning

- 104,000 Students “enrolled”
- 13,000 Students achieved certificates
- “To reach that many students before, I would have had to teach my normal Stanford class for 250 years.”



207 Courses; 33 Universities



May 2, 2012

In less than a year, 20 of the top 25 universities in the US News rankings become participants in the distance learning arena, and over \$100M had been committed to support their efforts. Three organizations, Udacity, Coursera, and edX currently enroll 1,500,000 students and offer hundreds of free courses.

MOOC MOOC

Nothing Will Stop the Incessant March



Take Me to the MOOC!

Distance Learning Modes

Different Time
Different Place
(Correspondence
Course)

Same Time/ Same
Place
(Traditional)

Same Time
Different Place
(Sunrise Semester)

Same Place
Different Times
(Self-Paced Learning
Lab Manual)

Distance Learning Modes

Different Time
Different Place
(Correspondence Course)

Same Time/ Same Place
(Traditional)

The Lines
are Gone

Same Time
Different Place
(Sunrise Semester)

Same Place
Different Times
(Self-Paced Learning Lab)

Algorithms



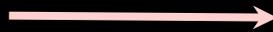
Processing



Bandwidth



Storage

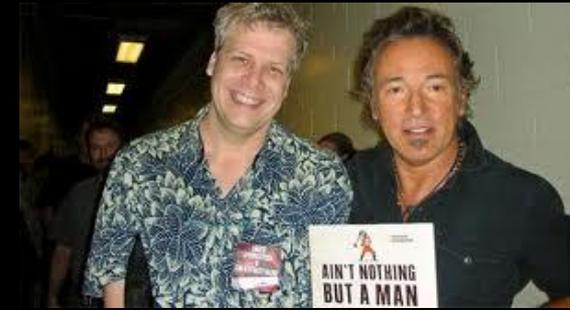


October 2006

William and Mary

- Faculty Assembly committee
- Integrated infrastructure
- Build a more coherent support model.

FA Committee



- Define a taxonomy of elearning.
- Collect and summarize elearning purposes
- Describe the William and Mary educational experience and collect examples of what other institutions are doing to enhance those types of learning.
- Identify the groupings of students and potential students that might be influenced by an expanded investment.
- Identify similar institutions who have experience in using digital technology to generate revenues or cut costs.
- Conduct surveys of faculty, students and other stakeholders.
- Gather examples of different ways in which faculty employ digital technology in their teaching. what outcomes)?
- Determine what assessment measures, if any, do we have for current activities and how can our current methods be compared to emerging digital methods of instruction?

Still Exploring

Lecture
Capture

Streaming
Services

Instructional
Design

Video
Conferencing

William and Mary
Elearning
Infrastructure

Some Projects

Asynchronous
Blended
Learning

Synchronous
Blended
Learning

Fully Functional

Blackboard

William and
Mary Blogs

AV
Production
(Swem)

Open Questions

- Do the institutions involved with these projects have the grit to see them through?
- Is there a sustainable business model that can be widely applied?
- What are the contribution that this type of learning has to residential undergraduate education in the US?