#### **Korea University**

고려대학교 (高麗大學校)





# Sir John Daniel Fellow: Korea National Open University

Making Sense of MOOCs:
Musings in a Maze of Myth, Paradox & Possibility

## Possibility



Myth

Paradox

The MOOC Maze







# What are MOOCs – and will they change Higher Education?

Sir John Daniel & Stamenka Uvalić-Trumbić Education Masters: DeTao Masters Academy, China

# Four Barriers That MOOCs Must Overcome To Build a Sustainable Model

Coursera and MITx - sustaining or disruptive?

'There's Something Very Exciting Going On Here'

#### The (Eventual) Downfall of MOOCs

Posted by Justin on September 12, 2012



Massive Open Online Collegitimate por September 1, 2012 by Mike Caulfield

Mix Why We Shouldn't Talk MOOCs as Meritocracies

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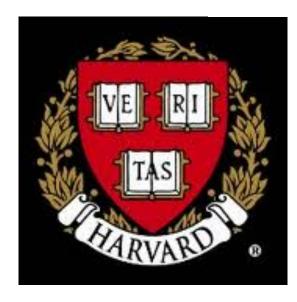
In the Collegitimate por Mike Caulfield

In the Collegitimate por Mi

MOOCs: a massive opportunity for tier one institution higher education, or digital hype?







## What is a MOOC?

Massive Open Online Course



#### Course x6002 Circuits and Electronics

155,000 registrations from 160 countries



#### Course x6002 Circuits and Electronics

155,000 registrations

23,000 tried first test

9,000 passed mid-term

7157 passed = < 5%



# Course x6002 *Circuits and Electronics*155,000 registrations 7157 passed = < 5% 340 had perfect score

(including a 15-year-old Mongolian)







**Anant Agrawal** 

Exam = 'very hard'
Attrition high but "if you look at the number in absolute terms, it's as many as might take the course in 40 years at MIT"



## MOOCs began in Canada

# University of Manitoba





George Siemens



**Stephen Downes** 



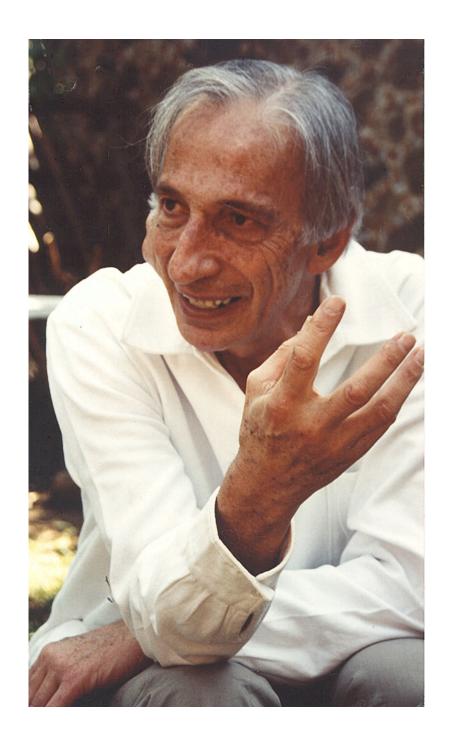
### MOOCs began in Canada

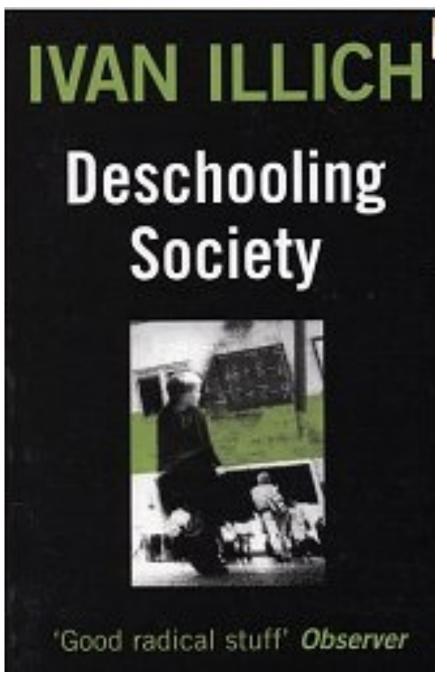
University of Manitoba

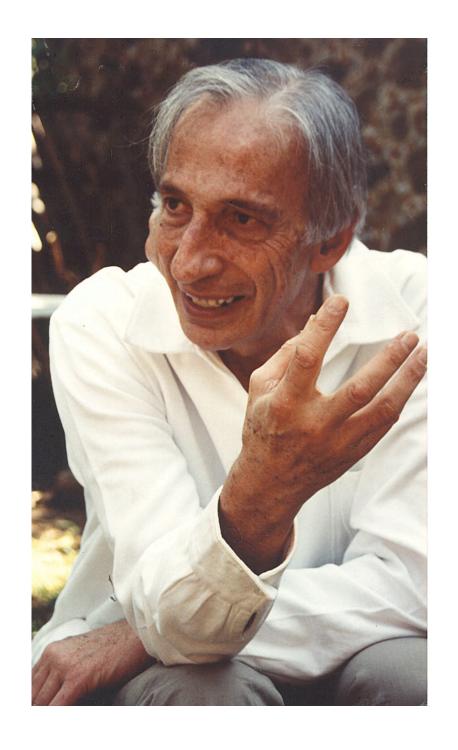


Connectivism & Connective Knowledge

25 students on campus 2,300 public - free







'provide all who want to learn with access to available resources at any time in their lives; empower all who want to share what they know to find those who want to learn it from them; and, finally furnish all who want to present an issue to the public with the opportunity to make their challenge known'



## MOOCs began in Canada

Connectivism & Connective Knowledge

'all the course content was available through
RSS feeds, and learners could participate with
their choice of tools: threaded discussions in
Moodle, blog posts, Second Life and
synchronous online meetings'



## MOOCs began in Canada

University of Manitoba

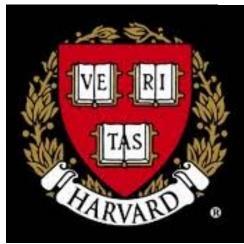


Connectivism & Connective Knowledge

cMOOC







# xMOOC



## xMOOC



## MOOCs began in Canada

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**Stephen Downes** 



## MOOCs began in Canada

# University of Manitoba





George Siemens



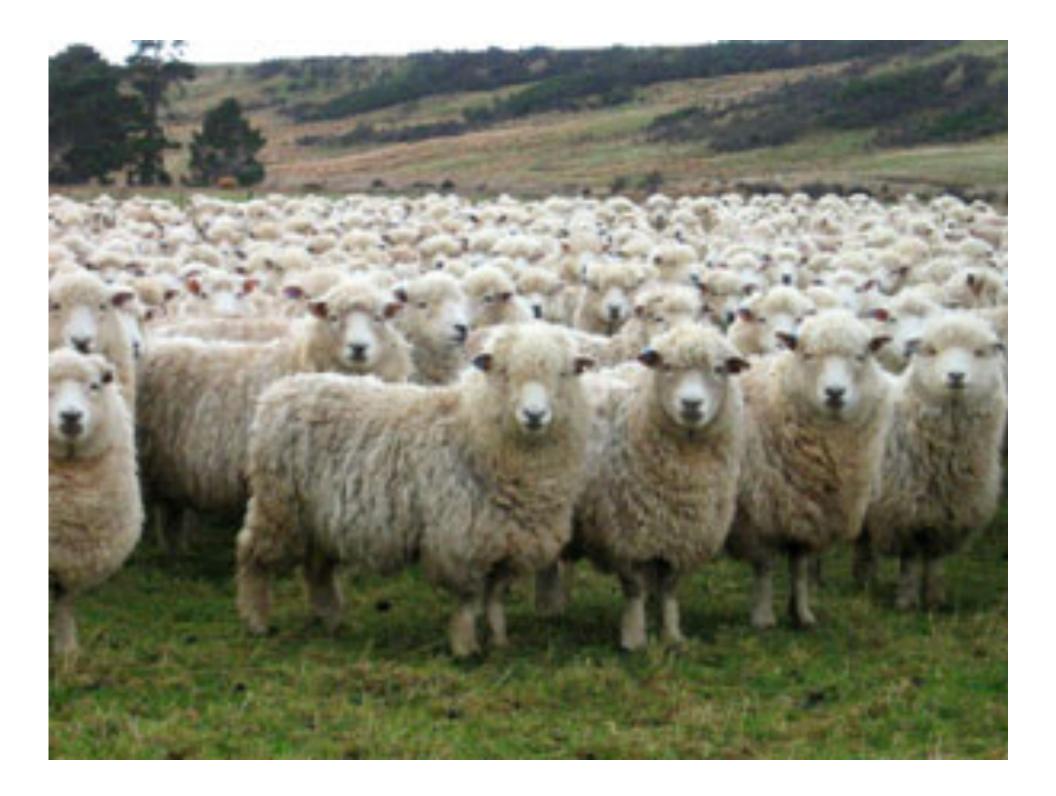
**Stephen Downes** 



Stanford 2012

Artificial Intelligence
Free
58,000 registrations

xMOOC





# 1.4 million registrations33 partner institutions200 courses



Lloyd Armstrong







"A strategy going back 15 years to use online learning to improve and change its teaching on campus"



Rafael Reif





## MITOPENCOURSEWARE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY



Rafael Reif





'Online learning is a disruptive technology'



John Mitchell



'So I think we're going to treat this as an intellectual question and an academic investigation in some sense'



**Lloyd Armstrong** 





A sideline – not core business

'it seems pretty obvious that no one who had any working knowledge of research in pedagogy was deeply involved in the creation of the course'



## coursera

Very high drop out rates in all xMOOCs



#### Course x6002 Circuits and Electronics

- Leave website up
- Students do own follow-up course
- Make student software available





'some classes were so rife with plagiarism that professors have had to plead with their students to stop plagiarizing'
(Students mark each others' work)

#### The inventor or introducer of the

### **BLACKBOARD**

deserves to be ranked among the best contributors to learning and science, if not among the greatest benefactors of mankind

Josiah Bumstead 1841

#### The

#### **MOTION PICTURE**

is the most revolutionary instrument introduced into education since the printing press

**Hoban** 1940

#### It now seems clear, however, that

#### **TELEVISION**

offers the greatest opportunity for the advancement of education since the introduction of printing by moveable type

Stoddard 1957

#### PROGRAMMED LEARNING

is the first
major technological innovation since
the
invention of printing

Woefle 1962

#### The impact of

#### COMPUTERS

on society, and hence on education, has been compared to that of moveable type and the printing press since Gutenberg

Caffrey and Mossman 1967



Peteft et una vox capi aure plurima: Linunt ita una seriptu mille paginas.

# INTERNET and COMMUNICATION TECHNOLOGIES

are revolutionising the format and delivery of education

Internet in Education Conference 2000

### Teaching and Learning

Manipulation of symbols (Words, Numbers, Formulae, Images...)

KNOWLEDGE MEDIA very powerful

#### The Practice of Education

"the Internet is an extraordinary vehicle for the wide distribution of information, knowledge and educational material at low cost."

#### UNLOCKING THE GATES

How and Why Leading Universities Are Opening Up Access to Their Courses



TAYLOR WALSH



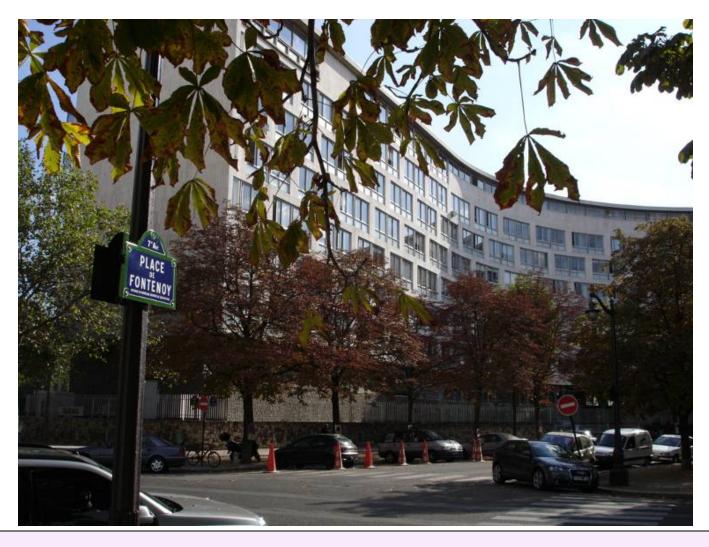
Rafael Reif





#### MITOPENCOURSEWARE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY



#### **UNESCO HQ Paris**

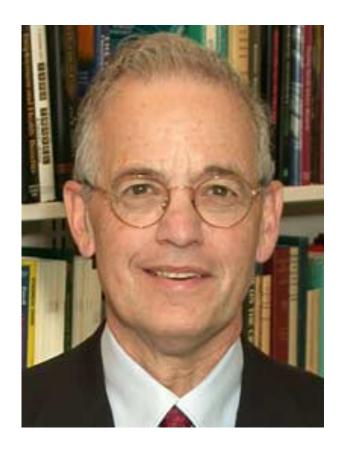
2002 Forum on the Impact of Open CourseWare for Higher Education in Developing Countries

#### UNLOCKING THE GATES

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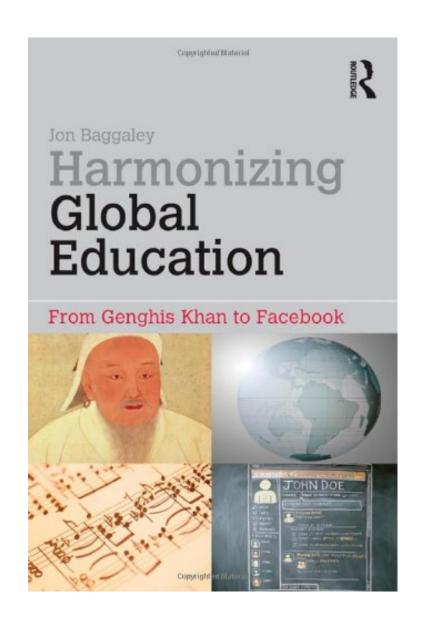


TAYLOR WALSH

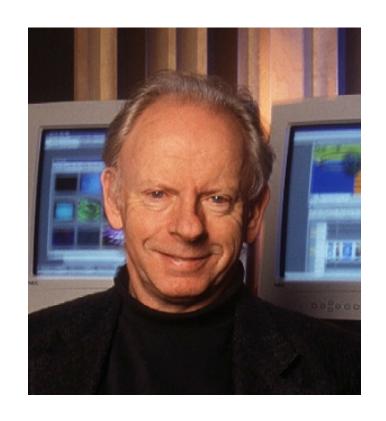


Harold Shapiro

"But you have to ask yourself, where do we have the talent? You can't just turn around tomorrow and say 'maybe we should start doing something different' - you have to accumulate the talent first"



### Jon Baggeley



**Tony Bates** 



**David Touve** 

#### **QUALITY**

Myth

Paradox

The MOOC Maze

# Myths and Paradoxes Quality

➤ MYTH: Brand = Quality

> PARADOX: They opposed Phoenix

> HIGH DROP OUT IS NOT QUALITY



Battle of Passchendaele - World War I



Jessica Mitford

'Let us now appraise famous writers'

Atlantic Monthly 1970

## Myths and Paradoxes Certification

> SUCCEED = CERTIFICATE

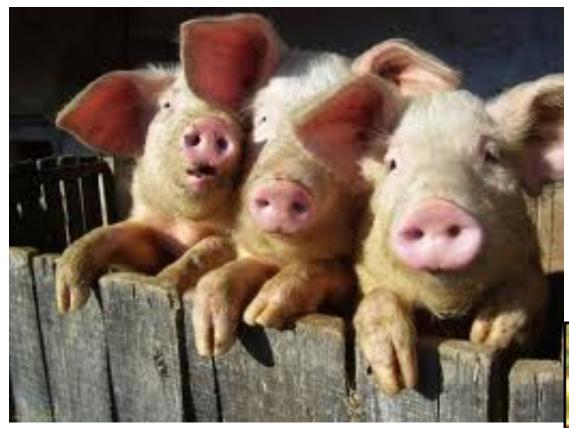
> ADMISSION = DEGREE



#### Open as to:

- People
- Places
- Methods
- Ideas

260,000 students of which >60,000 ex UK



Good little piggies in make good bacon out!

Dan Coldeway



### To end this contradiction...

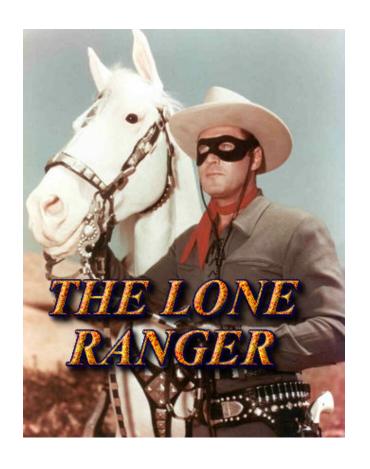
### LEARNING ANALYTICS

'the use of data and models to predict student progress and performance, and the ability to act on that information'

They hold outthe promise that individuals will eventually be able to have a complete record of what they have learned and mastered at the level of concepts and skills.

# Myths and Paradoxes Pedagogy

GOOD RESEARCHER
= GOOD ONLINE TEACHER



# Better to work in teams!

### Open Educational Resources

'educational resources that are freely available for use by educators and learners, without an accompanying need to pay royalties or license fees'



Building African education capacity through openness

HOME BL

UNDERSTANDING OER

FINDING OER

**OER IN ACTION** 

**USING TECH** 

Home > OER in Action > Health Project Home > Participating Institutions > KNUST



#### Kwame Nkrumah University of Science and Technology

The University of Science and Technology succeeded the Kumasi College of Technology which was established by a Government Ordinance on 6th October, 1961. Following the report of a University Commission which came out early 1961, Government decided to establish two independent Universities in Kumasi at Legon near Accra. The Kumasi College of Technology was thus transformed into a full-fledged University Kwame Nkrumah University of Science Technology by an Act of Parliament on 22nd August, 1961. By another act of Parliament, Act 559 of 1998, the University has been renamed Kwame Nkrumah University of Science and Technology, Kumasi.





### Internet History, Technology, and Security

**Charles Severance** 

What is the Internet? How was it created? How does it work?

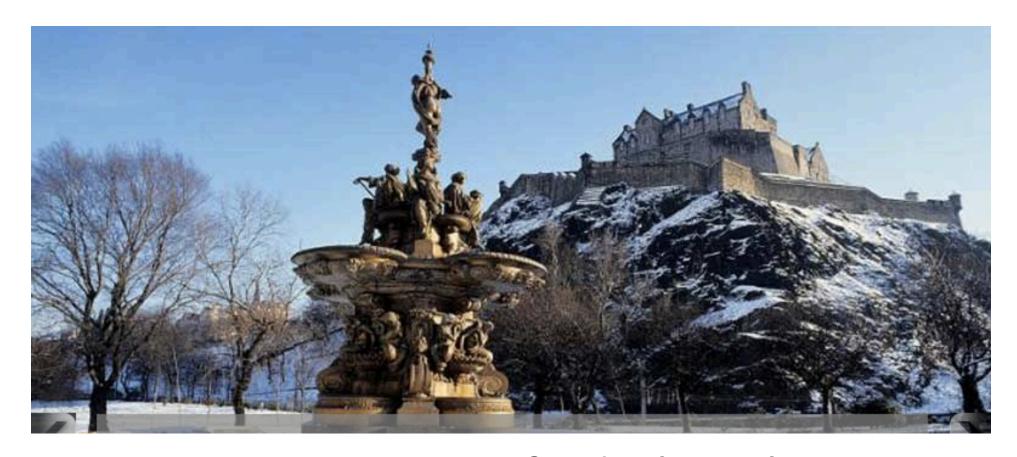




### Quantum Mechanics and Quantum Computation

Umesh Vazirani

This is an introduction to quantum computation, a cutting edge field that tries to exploit the exponential power of computers based on quantum mechanics. The course does not assume any prior background in quantum mechanics, and can be viewed as a very simple and conceptual introduction to that field.



# University of Edinburgh "conservative in terms of online pedagogical practice"

"a pedagogical mode that is significantly under-theorised"

# Myths and Paradoxes Pedagogy

> xMOOCs are not new pedagogy

# Myths and Paradoxes Pedagogy

> xMOOCs are not new pedagogy

COMPUTERS...
DON'T PERSONALISE LEARNING

## Myths and Paradoxes Why xMOOCs?

> PARADOX: BE OPEN – MAKE MONEY

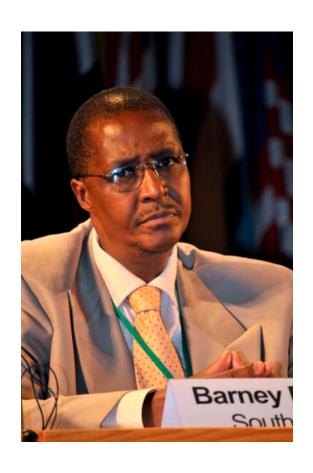
## Myths and Paradoxes Why xMOOCs?

NOT...
THE WAY TO EXPAND HIGHER
EDUCATION IN DEVELOPING
COUNTRIES



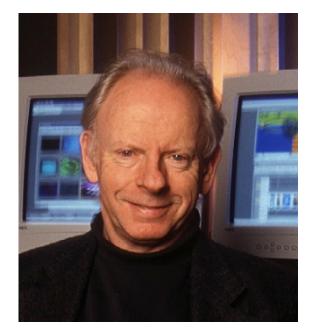
Stampede at the University of Johannesburg

#### WCHE session on OERs



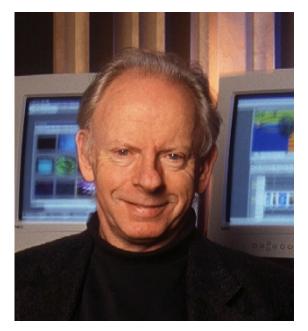
## Avoid intellectual neo-colonialism!





**Tony Bates** 

'these elite universities continue to treat xMOOCs as a philanthropic form of continuing education, and until they are willing to award credit and degrees for this type of programme, we have to believe that they think this is a second class form of education suitable only for the unwashed masses'



### **Tony Bates**

'Please, it is too much to ask for a little humility?

Probably, from these so-called elite institutions!'

#### Possibility



Myth

Paradox

The MOOC Maze

# Myths and Paradoxes Why xMOOCs?

NOT...
THE WAY TO EXPAND HIGHER
EDUCATION IN DEVELOPING
COUNTRIES



Higher education for those at the bottom of the pyramid



## coursera

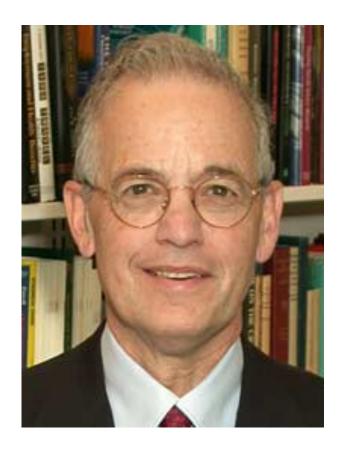
## Rankings of MOOCs

#### BRITAIN'S TOP TEN UNIVERSITIES

#### **Quality Rankings of Teaching**

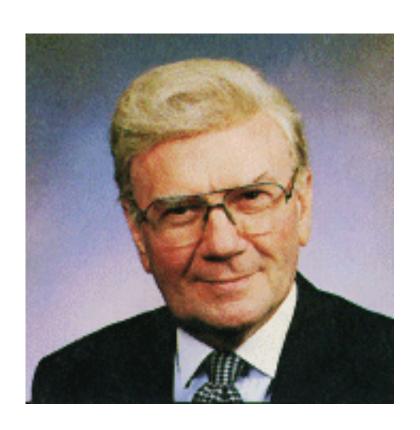
based on all subject assessments 1995-2004 (Sunday Times University Guide 2004)

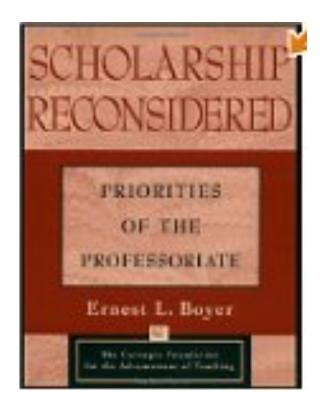
1	CAMBRIDGE	96%
2	LOUGHBOROUGH	95%
3=	LONDON SCHOOL OF ECONOMICS	88%
3=	YORK	88%
5	THE OPEN UNIVERSITY	<b>87%</b>
6	OXFORD	86%
7	IMPERIAL COLLEGE	82%
8	UNIVERSITY COLLEGE LONDON	77%
9	ESSEX	77%
10	COLLEGE of St MARK & ST JOHN	76%



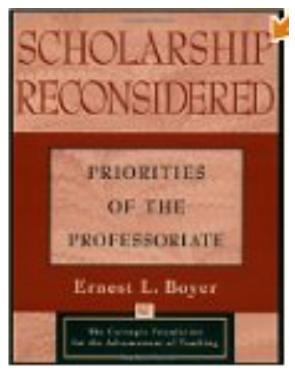
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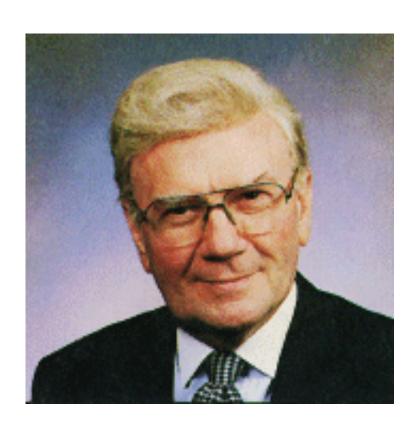


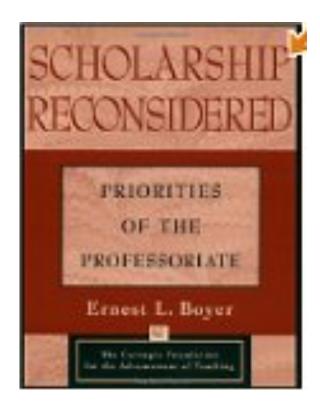






'we need a climate in which colleges and universities are less imitative, taking pride in their uniqueness. It's time to end the suffocating practice in which colleges and universities measure themselves far too frequently by external status rather than by values determined by their own distinctive mission'













#### Possibility



Myth

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## What are MOOCs – and will they change Higher Education?

Sir John Daniel & Stamenka Uvalić-Trumbić Education Masters: DeTao Masters Academy, China

# THANK YOU

For text and slides: www.sirjohn.ca