Sir John Daniel
Fellow: Korea National Open University

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

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

Why We Shouldn’t Talk MOOCs as Meritocracies

Massive Open Online

Why We Shouldn’t Talk MOOCs as Meritocracies

MOOCs: a massive opportunity for 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)
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
MOOCs began in Canada

University of Manitoba

George Siemens

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 registrations
33 partner institutions
200 courses
“A strategy going back 15 years to use online learning to improve and change its teaching on campus”
Rafael Reif

‘Online learning is a disruptive technology’
‘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’
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
Poteši ut una vox capi autre plurima: Linunt ita una scripta 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
UNESCO HQ Paris

2002 Forum on the Impact of Open CourseWare for Higher Education in Developing Countries
UNLOCKING THE GATES
How and Why Leading Universities Are Opening Up Access to Their Courses
TAYLOR WALSH
“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.”

Harold Shapiro
Tony Bates  David Touve
The MOOC Maze

QUALITY

Myth

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

Open as to:

• People
• Places
• Methods
• Ideas
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 out the 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’
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’
‘Please, it is too much to ask for a little humility?

Probably, from these so-called elite institutions!’
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
Rankings of MOOCs
# BRITAIN’S TOP TEN UNIVERSITIES

## Quality Rankings of Teaching

Based on all subject assessments 1995-2004

*(Sunday Times University Guide 2004)*

<table>
<thead>
<tr>
<th>Rank</th>
<th>University</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CAMBRIDGE</td>
<td>96%</td>
</tr>
<tr>
<td>2</td>
<td>LOUGHBOROUGH</td>
<td>95%</td>
</tr>
<tr>
<td>3=</td>
<td>LONDON SCHOOL OF ECONOMICS</td>
<td>88%</td>
</tr>
<tr>
<td>3=</td>
<td>YORK</td>
<td>88%</td>
</tr>
<tr>
<td>5</td>
<td>THE OPEN UNIVERSITY</td>
<td>87%</td>
</tr>
<tr>
<td>6</td>
<td>OXFORD</td>
<td>86%</td>
</tr>
<tr>
<td>7</td>
<td>IMPERIAL COLLEGE</td>
<td>82%</td>
</tr>
<tr>
<td>8</td>
<td>UNIVERSITY COLLEGE LONDON</td>
<td>77%</td>
</tr>
<tr>
<td>9</td>
<td>ESSEX</td>
<td>77%</td>
</tr>
<tr>
<td>10</td>
<td>COLLEGE of St MARK &amp; ST JOHN</td>
<td>76%</td>
</tr>
</tbody>
</table>
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”
‘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

Paradox

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THANK YOU
For text and slides:
www.sirjohn.ca