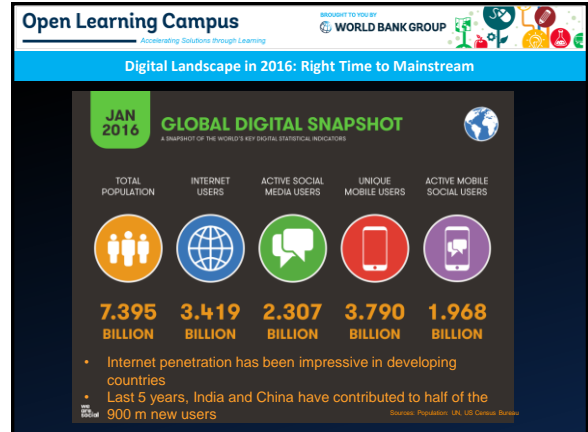


Personalizing the MOOC: Insights from Experts Around Planet Earth

Curtis J. Bonk, Indiana University
cjbonk@indiana.edu



Part I. Current Trends and Recent Cycles



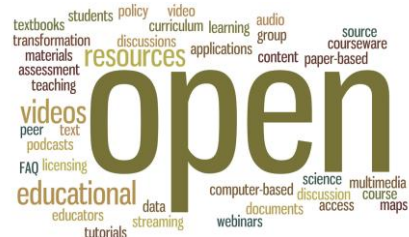
Audience Poll #1: When did the world become open?



Milestones in Educational Technology (All 7 year cycles)

- 1987: Hypercard first shipped.
- 1994: Netscape goes public.
- 2001: MIT OCW & Wikipedia Launched.
- 2008: First MOOC Offered.
- 2015: The Age of Personalization.

Audience Poll #2: Who in here has used Opencourseware?



October 29, 2016 Open Education, Blackboard

https://openeducation.blackboard.com/home?tab_tab_group_id=12_1

October 29, 2016 OpenLearning (Thailand)

<https://www.openlearning.com/>

December 18, 2016

Best Online Courses of 2016, Class Central

<https://www.class-central.com/report/best-free-online-courses-2016/>

Around 2,600 courses were offered for the first time in 2016. After analyzing more than 6,000 reviews written by Class Central users, we were able to rank the courses (by the Bayesian average of their ratings) to create this list of the **top-rated free online courses for 2016**.

1. **Coding in your Classroom, Now!** from University of Illinois via ERMIA
2. **Tonghuo Chinese: Start Talking with 1.2 Billion People!** from Tonghuo University via edX
3. **The Nature of Code** from Processing Foundation via Kadenze
4. **Introduction to Agent-based Modeling** from Santa Fe Institute via Complexity Explorer
5. **The 3D Printing Revolution** from University of Illinois at Urbana-Champaign via Coursera
6. **Becoming a changemaker: Introduction to Social Innovation** from University of Cape Town via Coursera
7. **Preparing to Manage Human Resources** from University of Minnesota via Coursera
8. **Creative Applications of Deep Learning with TensorFlow** via Kadenze
9. **Teaching for Change: An African Philosophical Approach** from Stellenbosch University via FutureLearn
10. **Stanford Introduction to Food and Health** from Stanford University via Coursera



December 22, 2016

6 Biggest MOOC Trends of 2016, Dhawa Shah, Class Central

<https://www.class-central.com/report/biggest-mooc-trends-2016/>

2. College Credit, Credentials, and Degrees

	Credentials	College Credit	Degrees
Coursera	✓	✓	✓
EdX	✓	✓	x
FutureLearn	✓	✓	✓
Udacity	✓	x	✓
Kadenze	✓	✓	x

CLASS CENTRAL

December 25, 2016

By The Numbers: MOOCs in 2016, Dhawa Shah, Class Central

<https://www.class-central.com/report/mooc-stats-2016/>

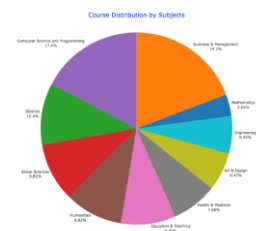
Here is a list of top five MOOC providers by registered users:

1. Coursera – 23 million
2. edX – 10 million
3. XuetangX – 6 million
4. FutureLearn – 5.3 million
5. Udacity – 4 million

December 25, 2016

By The Numbers: MOOCs in 2016, Dhawa Shah, Class Central

<https://www.class-central.com/report/mooc-stats-2016/>



Part II. MOOCs and Open Education Around the World

<http://routledge-ny.com/books/details/9781138807419/>



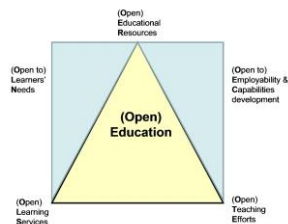
Foreword #1: The Role of MOOCs in the Future of Education?

George Siemens, Executive Director of the Learning
Innovation and Networked Knowledge Research Lab,
University of Texas Arlington



Foreword #2: Open(ing up) Education for All, Boosted by Moocs?

Fred Mulder, UNESCO Chair in Open Educational
Resources at the Open University of the Netherlands



Chapter 1: The MOOC Misstep and the Open Education Infrastructure

David Wiley, Co-founder and Chief Academic
Officer, Lumen Learning

The Open Education Infrastructure

1. Open Credentials
2. Open Assessments
3. Open Educational Resources
4. Open Competencies



Chapter 2: The Single Canon: MOOCs and Academic Colonization

Karen Head, PhD
The Georgia Institute of Technology

"If MOOC proponents truly seek to
offer the best educational
opportunities to the world, they will
have to open these platforms to a
wide variety of institutions and
instructors."



Chapter 3: MOOCs and Open Education in Japan: A Case of the Open University of Japan

Kumiko Aoki, Ph.D., The Open University of Japan

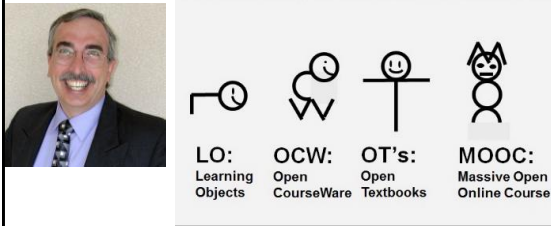
"It is hoped that MOOCs will play a
significant role for stakeholders in
Japanese higher education in the
near future."



Chapter 4: MOOCs, MERLOT, and Open Educational Services

Gerard L. Hanley, Ph.D.
MERLOT Executive Director
Assistant Vice Chancellor, Academic Technology Services
California State University, Office of the Chancellor

Figure 1. MOOCs as a Recent Evolution of OER



Chapter 5: Enabling Open Education: A Feasibility Protocol for Australian Higher Education

Dr Carina Bossu, University of Tasmania, Australia
Mr David Bull, University of Southern Queensland, Australia
Professor Mark Brown, Dublin City University, Ireland

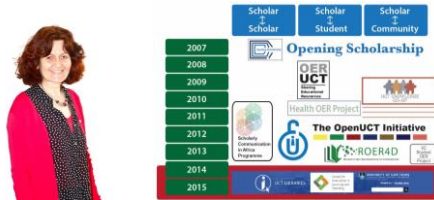
Figure 5.1. Feasibility Protocol



Chapter 6: Open Education at the University of Cape Town

Laura Czerniewicz, Glenda Cox, Cheryl Hodgkinson-Williams, and Michelle Willmers

Figure 3: The openness journey at the University of Cape Town (UCT)



Chapter 8: MOOCs Downunder: Insights from the Open2Study Experience

Maggie Hartnett, Mark Brown, and Amy Wilson
Massey University, Dublin City University, and Massey University

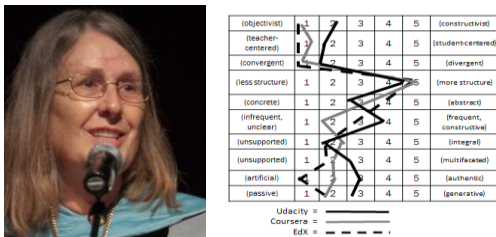
Figure 3: Example of the Indigenous Studies subject



Chapter 10: MOOC Pedagogy AMP: A Tool for Characterizing the Pedagogical Approaches of MOOCs

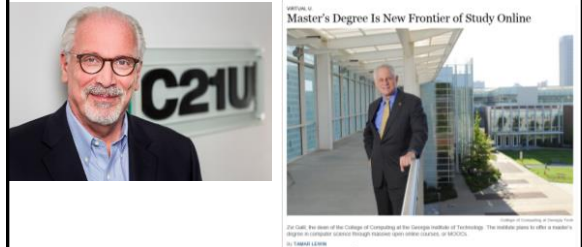
Karen Swan, Scott Day, Leonard Bogle, and Traci van Prooyen
University of Illinois Springfield

Figure 3. Ratings Metaphors



Chapter 13: Unbundling Higher Education and the Georgia Tech Online MS in Computer Science: A Chronicle

Richard DeMillo



April 23, 2015 Cost-Benefit Analysis

Offloading Semesters or Years to MOOCs

The Catch in Arizona State's Low-Cost Freshman Year Online:
No Aid, Chronicle of Higher Education, Thomas Fisher
<http://chronicle.com/article/The-Catch-in-Arizona-State-s/229617/>



Anant Agarwal, the head of edX, which teamed up with Arizona State U. in the new project: "Our mission is to provide education to people who need it the most."

Chapter 14: Creating a Temporary Spontaneous Mini-Ecosystem through a MOOC

Paul Kim and Charlie Chung, Stanford University

Figure 2. Twitter thread announcing the MOOC



Chapter 15: Learning about MOOCs by Talking to Students

Charles Severance, University of Michigan

Chuck Severance, U Michigan/Coursera) in Barcelona

<http://www.youtube.com/watch?v=JzNHvmSv8TI>

Chuck Severance, University of Michigan

<https://www.coursera.org/course/pythonlearn>



April 1, 2015

Flipped the Classroom with MOOCs

For a Better Flip, Try MOOCs, David Raths, Campus Technology

<http://campustechnology.com/articles/2015/04/01/for-a-better-flip-try-moocs.aspx>

For a Better Flip, Try MOOC

Innovative faculty are running MOOCs and flipped format on-campus courses on the same schedule and having the two groups interact online -- with interesting results.

By David Raths / 04/01/15



Why MOOC OERs are "ultimate necessities" in higher education

By David Raths, Managing Editor, @david_raths

Read more by David Raths

March 31st, 2015

Researcher discusses 3 strategies to open up MOOC content.

Any MOOCs truly the open education innovation they were designed to be?

That's the question one researcher says those in academia should be asking. Though MOOCs are based on simplicity suggesting an evolution of the Open Learning

Researcher discusses 3 strategies to open up MOOC content.

Any MOOCs truly the open education innovation they were designed to be?

That's the question one researcher says those in academia should be asking. Though MOOCs are based on simplicity suggesting an evolution of the Open Learning

Chapter 16: Collaborative Design and Development of MOOCs for Teacher PD

Bernard Robin and Sara McNeil, Univ. of Houston



COE Faculty Develop Massive Open Online Courses on Technology Tools for Teachers

Two former and current faculty professors in the Learning, Design and Technology Program in the College of Education have received a grant from the UH Office of Education, Innovation and Technology to design, develop and deliver six MOOCs (Massive Open Online Courses) that explore innovative technology tools that K-12 teachers can use in their classrooms to support active student learning. Each MOOC will be five weeks long and will be delivered through Coursera. <http://coursera.org>

The University of Houston System recently launched its first three MOOCs on Coursera, offering optional participation and open access.

How of change

Usually, MOOCs are created by teams of faculty, instructional designers and technologists, but the Learning, Design and Technology Program's MOOCs are being designed and developed by a team of UH College of Education graduate students who are working with Dr. Robin and Dr. McNeil to create the first two MOOCs. These MOOCs are going through final development in summer 2015 and are set to be delivered in Coursera in the fall of 2015.

One MOOC focuses on the educational use of digital storytelling and is currently seeking enrollment (<https://www.coursera.org/course/digitalstorytelling>), and the other MOOC deals with the use of emerging technologies for instructional purposes and will be available in the fall. Both

MOOCs will be delivered through Coursera.

Chapter 18: Changing the Tune: MOOCs for Human Development? A Case Study

Balaji Venkatataraman and Asha Kanwar, COL



Chapter 19: Harnessing the Power of Open Learning to Share Global Prosperity and Eradicate Poverty

Sheila Jagannathan, World Bank, Washington DC

Figure 1: World Bank Group Twin Goals



Chapter 19: Harnessing the Power of Open Learning to Share Global Prosperity and Eradicate Poverty

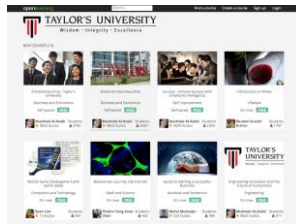
Sheila Jagannathan, World Bank, Washington DC
MOOCs on Climate Change (e.g., impacts of climate change on farmland) and Risk and Opportunity (reducing the risk of childhood mortality)



Chapter 20: The Glocalization of MOOCs in Southeast Asia

Zoraini Wati Abas, Ed.D.

Figure 2. Eight of thirteen MOOCs offered by Taylor's University



Chapter 22: OER and MOOCs in Africa: The AVU Experience

Griff Richards and Bakary Diallo,
African Virtual University, Nairobi, Kenya

It is estimated that only 6% of Africans can access post-secondary education. The development goal is set at 12% even though North America and Europe are somewhere around 45%.



Chapter 23: Open Learning in the Corporate Setting

Elliot Masie, The Learning CONSORTIUM @ The MASIE Center

"Open" is an interesting and disruptive word to use about a corporate setting. Yet, Open Learning is one of the most provocative and rapidly changing elements of how corporate learning is being harvested, delivered, and packaged.



Chapter 24: ALISON: A New World of Free Certified Learning

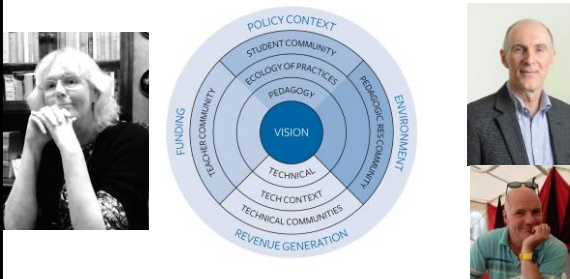
Mike Feerick, CEO & Founder, ALISON



Chapter 28: MOOCs 2030: A Future for Massive Online Learning

Rebecca Ferguson, Mike Sharples (The Open University, UK),
Russell Beale (University of Birmingham)

Figure 1. The Beyond Prototypes Models of the TEL Complex



Part III. Ideas for Cultural Sensitivity



Chapter 2: USA/Georgia Tech: Karen Head



- Be careful with: hand gestures (e.g., finger pointing—use at least two fingers), body movements, English dominance, political issues.
- Jokes and humor can easily be misinterpreted.
- Be aware of shifting political climates impacting resource access such as YouTube in China.
- Many cultures do not have a linear approach (e.g., from A to B) to communication.
- Using visual rhetoric (e.g., visual images) to communicate can be a minefield of problems.

January 27, 2014 Various Geo-Political Issues

Coursera Support Center, Why is my country blocked?
http://help.coursera.org/customer_portal/article/1425124-why-is-my-country-blocked
Online education platform Coursera
blocks students in Syria and Iran, Wamba, Nina Curley



Chapter 3: Japan/The Open U Kumiko Aiko



- Make subtitles available in multiple languages based on intended audiences.
- Avoid references to current events that may only be shared by a small subgroup.

Chapter 5: Australia Carina Bossu



To ensure inclusiveness (including cultural, ethical, and religious), one should openly license all educational materials developed for MOOCs, so as to guarantee the permissions and freedoms required for translation, adaptation, re-use, redistribution, and repackaging.

Duke MOOCs Around the World

<https://www.youtube.com/watch?v=nL5QRR61OU&feature=youtu.be>



September 16, 2013

Courses from Open Content

Rwandan Degree Program Aims for a 'University in a Box', Chronicle of Higher Education, Megan O'Neil

<http://chronicle.com/article/Rwandan-Degree-Program-Aims/141631/>



Students attend an orientation session at Kepler, a new hybrid program in Kigali, Rwanda, which will use MOOCs and classroom time to help students earn competency-based associate degrees.

Chap. 6: South Africa

Laura Czerniewicz

- The single most important requirement is that MOOCs and MOOC resources be made available under Creative Commons licenses or other open licenses which allow for re-use and adaptation. it is essential a broadcast model be employed.
- The agency for and ownership of local resources needs to be in the hands of those who best understand local conditions, and therefore they need to be able to create and adapt as they see fit.

LICENSES	TERMS
	Attribution BY Others can copy, distribute, display, perform and remix your work if they credit your name as requested by you
	No Derivative Works ND Others can only copy, distribute, display or perform verbatim copies of your work
	Share Alike SA Others can distribute your work only under a license identical to the one you have chosen for your work
	Non-Commercial NC Others can copy, distribute, display, perform or remix your work but for non-commercial purposes only.

Chapter 8:

New Zealand and Ireland

Mark Brown

- Create MOOCs on indigenous cultures and unique languages other than English (e.g., Irish).



Chapter 9: Scotland

U of Edinburgh

Amy Woodgate

- Intermittent Internet access on one's mobile phone will not help to stream HD videos.
- Simple course designs (e.g., talking heads with minimal hand gestures) helps to make content more available for international audiences. More engaging content is more difficult to convert.



Mobile MOOCs (e.g., mobile courses on smartphone)



Chapter 11: India and Canada/COL Sanjaya Mishra

- Be culturally sensitive to music and pictures while designing content for global audience.
- Consider technology used to develop the content (does it assist reuse and remixing?).
- Instead of focusing too much on the cultural sensitivity of MOOCs and raising costs, try to allow for reuse and remixing of content. Use open source technologies and content.

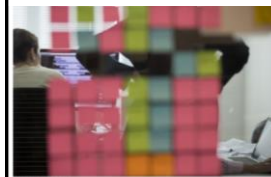


Chapter 12: Netherlands/Open U Fred Mulder and Darco Jansen

To be mindful of:

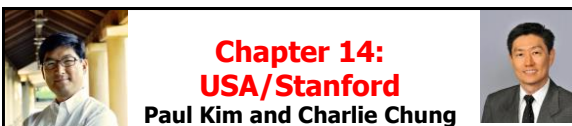
- Different levels of digital literacy skills
- Local resources by locals
- Legal differences and barriers
- Gender, age, and disability issues
- Device-specific pedagogy and interface

May 27, 2015 MOOC Participant Study Strategies The Invisible Learners Taking MOOCs, George Veletsianos, Inside Higher Ed <https://www.insidehighered.com/blogs/higher-ed-beta/invisible-learners-taking-moocs>



HIGHER ED BETA
MOOCs and beyond
The Invisible Learners Taking MOOCs
May 27, 2015 - 4:13pm
View Comments

Rajeev Bajpai, an airline pilot based in Mumbai, took an online computer-science course to gain programming skills.



Chapter 14: USA/Stanford Paul Kim and Charlie Chung

- Encourage students to download lecture videos and translate them to other languages and perhaps add captions and make available in their local cloud services.
- Encourage students to create low bandwidth versions of videos for those in low bandwidth areas.
- Encourage students to translate videos and add nuances and words understandable in local languages.
- Encourage students to meet locally in teams to share materials and take care of "sensitive matters."

August 1, 2014 Can You Really Teach a MOOC in a Refugee Camp?

Steve Kolowich, Chronicle of Higher Education
<http://chronicle.com/blogs/wiredcampus/can-you-really-teach-a-mooc-in-a-refugee-camp/54191/>



Two men living in Dadaab, a refugee camp in Kenya, would watch lecture videos and take online quizzes at a nearby United Nations compound. (InZone)

- **Avoid troublesome metaphors and examples (e.g., the baseball World Series in the USA).**
- **Never show lecturer's face (use audio only)—allows for complete overdubbing in the native language and avoid hand gesture problems.**
- **Make slides as word free as possible—where possible use symbols**
- **"Limit" to audio and "No" video OR keep the video "simple"**



Sheila Jagannathan

- **“Widen” and “increase” representations from more diverse groups and stakeholders (gender, non western, public and private, grass roots, etc.).**
- **Make the contents more culturally sensitive/relevant.**



Zoraini Wati Abas

- **Do not expect Asian audience to quickly voice their opinions**
- **Treat Asian audience as an equal**
- **Avoid issues related to religion and politics.**
- **Minimize distractions and negative feelings (e.g., do not show visuals or give examples of prohibited types of foods or animals)**

MOOCs: vital tools in education of the future – or over-hyped online fad? (embedded video: 8:01)

<http://www.euronews.com/2016/03/04/moocs-vital-tools-that-are-shaping-the-future-of-education-or-over-hyped-online/>

MOOCs: vital tools in education of the future – or over-hyped online fad?

By Sarah Chappell

DOI: 10.1002/anie.201200000

Chapter 21:

Melinda Bandalaria

- **Strictly avoid references to religion.**
- **Use acceptable dress code.**
- **Even when English is the primary or secondary language of the country, consider making MOOC content available in the major dialects of the country.**

Benefits of MOOCs for Disadvantaged and Underprivileged

The Revolution Is Not Being MOOC-ized, Students are educated, employed, and male.

Gayle Christensen and Brandon Alcorn, UPenn, New Scientist
http://www.slate.com/articles/health_and_science/new_scientist/2014/03/mooc_survey_students_of_free_online_courses_are_educated_employed_and_males.html



Filipino youths go online at an Internet café in Manila on Feb. 18, 2014. Two-thirds of Coursera participants come from the developed world, according to a new report.



Chapter 27: Canada

Helene Fournier and Rita Hop



- “Personalize” the learning experience to offset the massiveness.
- Need to think hard about how cultural differences might be expressed and accepted in the MOOC platform.
- The road ahead hinges on personalizing learning experiences; the connectivist approach (i.e., cMOOCs) is which participants are in the driver’s seat.

March 1, 2016

Zoom

Tarleton State University, Texas

Dr. Credence Baker



Chapter 28: UK/FutureLearn

Rebecca Ferguson and Mike Sharples



- Access. In many countries (e.g., in Africa, but also areas of Asia) mobile is the main means of access, so the courses need to be developed for a mobile-first experience, including pedagogy as well as interface.
- Provide transcripts of videos, preferably in multiple languages and multi-language subtitles.
- There are deep-seated cultural differences related to: the value of expert vs learner-originated knowledge; deference to experts; willingness to engage in discussion and critique.

January 20, 2016

Why the Future Is Bright for the World’s Poorest Farmers, Gates Notes, the blog of Bill Gates

https://www.gatesnotes.com/Development/The-Future-of-Farming?WT.mc_id=01_20_2016_20_FutureofFarming_BG-LI_AWT&oc=BG-LI



Part IV. Personalization of MOOCs



Foreword: Canada/USA

George Siemens

- MOOCs are adopting CMUs OLI project (adaptive learning in stats) (e.g., Candace Thille at Stanford).
- Smart Sparrow (adaptive learning company connected to ASU) has started running personalization in MOOCs. One personalized/adaptive MOOC with Australian univ.
- Carolyn Rose at CMU recently ran a “Super Heroes” MOOC together with Smithsonian that used personalization approaches through “intelligent agents” to foster dialogue and collaboration.

October 1, 2014

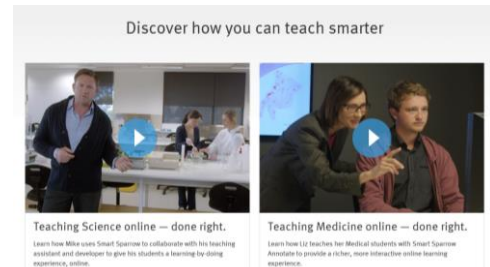
Acrobatiq

<http://acrobatiq.com/>



October 1, 2014
Smart Sparrow, Heat Maps on Misconceptions

<http://www.smartsparrow.com/>



Chapter 18:
Canada/COL

Balaji Venkataraman



- In the Mooc on mobiles for development the course team received requests from two groups of learners in Sierra Leone and Zambia for the course materials on DVD.
- AgMoocs initiative (<http://www.agmoocs.in/>) uses MookIT platform designed for access in low bandwidth conditions. It includes a functionality for a learner to hear the voice track on a basic mobile phone.

May 20, 2016
agMOOCs (India)

<http://www.agmoocs.in/>



Chapter 18:
Canada/COL

Balaji Venkataraman



In the Pacific COL supported the U of South Pacific with a specially constructed MOOKIT platform. Social media was integrated with it. Any interested learner can add his or her SM profile to the profile in the course. This will enable a learner to follow the discussions on the course forum in real time using just the smart phone. This bandwidth is cheaper in most Pacific island countries than bandwidth available for laptops. This facility greatly contributed to increased course participation often overwhelming the team of instructors.

May 19, 2016
Facebook Schools MOOCs on Engagement

Jason Schmitt, EdSurge

<https://www.edsurge.com/news/2016-05-19-facebook-schools-moocs-on-engagement>




December 23, 2016

HarvardX and MITx: Four Years of Open Online Courses -- Fall 2012 - Summer 2016

Isaac Chung, MIT, and Andrew Dean Ho, Harvard
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2889436

HarvardX and MITx:
Four Years of Open Online Courses
Fall 2012 - Summer 2016

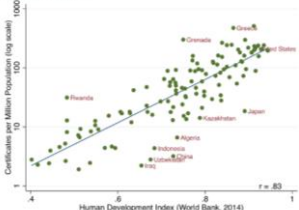


Inside:

- 1) Exam format
- 2) Course materials
- 3) Course evaluation

December 23, 2016

Exhibit 3b: The relationship between HarvardX and MITx certification prevalence and human development index, by country



Certificates per Million Population (log scale)

Human Development Index (World Bank, 2014)

$r = .83$

March 3, 2016

'Trump U.' Draws Unflattering Spotlight to the Candidate as Fraud Cases Move Forward

Chronicle of Higher Education, Corrine Ruff
http://chronicle.com/article/Trump-U-Draws/238973/cid=trend_right_a

'Trump U.' Draws Unflattering Spotlight to the Candidate as Fraud Cases Move Forward



**Chapter 21:
Philippines Open U
Melinda Bandalaria**

- ...one feature that we have integrated into our MOOCs which I think is one effort to personalize learning is the "Multiple Paths to Learning" or the "Learning on the Go." Through this feature, the learner can choose whether to learn through the video lessons, text lessons or podcast.
- In terms of gadgets to use, of course, we made sure that the courses are accessible whatever device especially mobile devices, the learner has access to.



**Chapter 22:
Canada/Africa
Griff Richards**

"I think a concept like personalization is laudable, but I'd like to see where it sits in the list of things to do to improve MOOCs. For example if we look down Hattie's list of useful interventions, would personalization give us the biggest learning bang for the buck of development? Or would we get there through some simpler intervention like simply making the courses more self-paced."



**Chapter 25:
USA/Illinois
Vickie Cook**

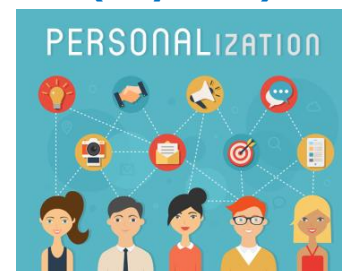
- Personal notes within the MOOC from either other students or the instructor that the MOOC takes on a personalized emphasis...communications that do not use my name, or are generic to be reused—feel quite cold and impersonal.
- Theory of "heutagogy" – basically learning that is self-determined and available in a mobile interface, I think it is important that personalization also create the desire to return to the MOOC for more.



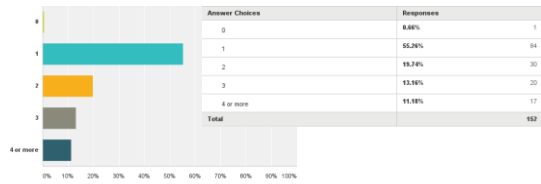
**Chapter 25:
USA/Illinois
Ray Schroeder**

- Most obvious way to personalize is to include group projects, allowing students to self-select into interest areas to conduct collaborative projects that are relevant to the MOOC topic
- One of the easiest and most effective ways is to build self-reflection into each module of a MOOC.
- Motivated self-determined learners (such as many MOOCers are) do naturally adapt, build upon and scaffold MOOCs to meet their personal learning needs and desires.

**Part V. MOOC Instructor Survey
Personalization Results
(July 2016)**



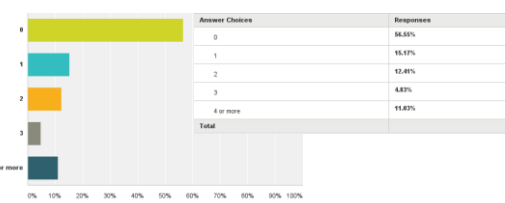
1. How many MOOCs have you taught? (N = 152)



Powered by SurveyMonkey

Q4: 3. How many MOOCs have you completed as a learner (including any that you are currently enrolled in)?

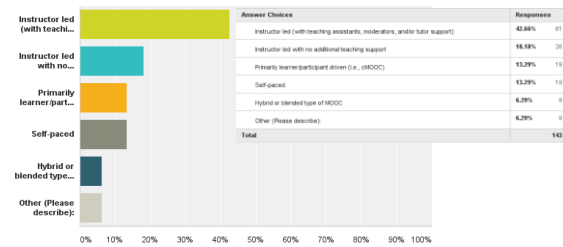
Answered: 145 Skipped: 10



Powered by SurveyMonkey

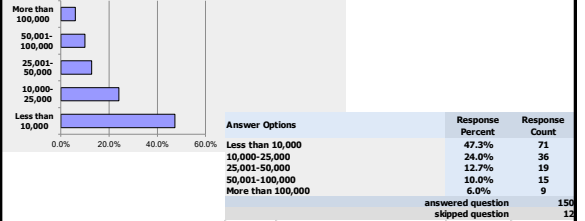
Q7. What is the delivery format of your most recent MOOC?

Answered: 143 Skipped: 12



Powered by SurveyMonkey

8. How many people signed up for your most recent MOOC? (N = 150)



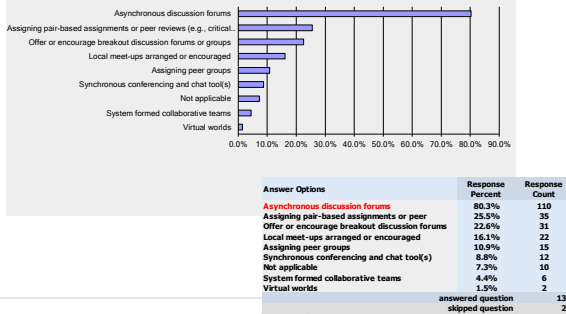
13. How do you address students' varying competencies and needs? [Check all that apply]

Answer Options	Response Percent	Response Count
Establish learner-based discussion forums	81.0%	115
Embed supplementary course materials (e.g., readings, videos, etc.)	78.2%	111
Post timely course announcements and emails	63.4%	90
Record video tutorials or walkthroughs (e.g., Screencasts, YouTube)	40.8%	58
Emphasize project-based learning over exams	34.5%	49
Using preexisting online videos (e.g., Lynda.com, TED talks, YouTube, etc.)	32.4%	46
Other (Please describe):	26.1%	37
Hold synchronous lectures, meetings, and events (e.g., Skype, Google Hangouts)	23.9%	34
Establish study groups	19.0%	27
Establish learner reflection journals or blogs	16.2%	23
Schedule virtual office hours and meetings	14.1%	20
Offer face-to-face meet-up opportunities	7.0%	10
answered question		142
skipped question		20

14. What types of learning resources can participants select from in your most recent MOOC? [Check all that apply]

Answer Options	Response Percent	Response Count
Discussion forums or threads	91.5%	130
Video lectures and tutorials	76.8%	108
Readings (including textbooks, literature, scientific & tech reports)	75.1%	106
Practice quizzes and exams	57.7%	82
Interactive assessments	50.7%	72
Expert interviews	50.0%	71
PowerPoint and other presentation slides	47.9%	68
Instructor lecture notes	44.4%	63
Animations and other types of animated or interactive contents	43.0%	61
Visuals (e.g., concept maps, diagrams, flowcharts, timelines, etc.)	42.3%	60
Video examples (e.g., TED talks, YouTube, etc.)	39.4%	56
Social media (e.g., Facebook, Instagram, Snapchat, Twitter, Pinterest, etc.)	28.9%	41
Popular media (e.g., news stories and videos)	28.2%	40
Wiki-style documents	18.3%	26
Podcasts	15.5%	22
Instructor blogs	14.8%	21
Simulations and games	14.1%	20
Job aids and study guides	12.0%	17
Mobile applications	12.0%	17
Learner blogs	9.9%	14
Other (fill in the blank - optional):	9.9%	14
Virtual conferences and summits	4.9%	7
answered question		142
skipped question		20

16. In what ways is peer interaction encouraged in your MOOC? [Check all that apply; N = 137]



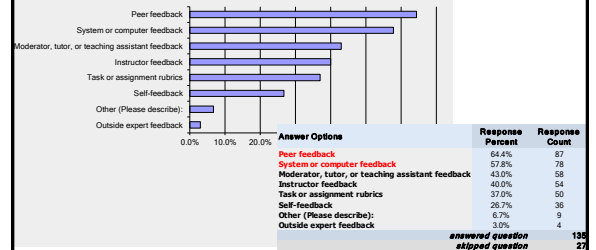
17. How did you design your course to be suitable for students from different cultures and/or linguistic backgrounds?[Check all that apply]

Answer Options	Response Percent	Response Count
Offer transcripts of video or audio content	66.2%	88
Add subtitles to video content	63.9%	85
Be careful with language use and hand gestures	51.9%	69
Simplify the language used	42.1%	56
Slow the pace of speech	36.8%	49
Simplify the course content and navigation	27.1%	36
Limit text by relying more on pictures	19.5%	26
Encourage participants to translate and localize content	18.0%	24
Other (Please describe):	15.8%	21
Translate the content to different languages	11.3%	15
answered question		133
skipped question		29

18. Does the structure of your most recent or current MOOC provide any of the following? [Check all that apply; N = 126]

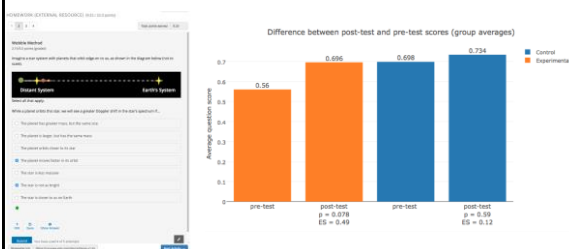
Answer Options	Response Percent	Response Count
Optional readings, videos, or other materials	74.6%	94
Learner selected incentives (e.g., certificates, badges, course credit, etc.)	64.3%	81
Options with course tasks and assignments	38.1%	48
Learner discussion and negotiation of content	36.5%	46
Two or more media elements to learn the same content	31.7%	40
Learner determined or contributed content	30.2%	38
Learner selected learning pathways (i.e., different routes to learn the)	19.0%	24
Learner portfolios of course accomplishments	16.7%	21
Choice in team or collaborative partners (i.e., self-formed teams)	12.7%	16
answered question		126
skipped question		36

20. In what ways do students get feedback in the course?[Check all that apply; N = 135]



February 1, 2017 Designing Adaptive Learning and Assessment in HarvardX: Collaborative Project by Harvard University and TutorGen

Yigal Rosen, Harvard University and Mary Jean Blink, TutorGen, Inc.
<http://opss.harvard.edu/blog/designing-adaptive-learning-and-assessment-harvard-collaborative-project-harvard>



21. Does your most recent (or current) MOOC utilize any of the following? [Check all that apply; N = 127]

Answer Options	Response Percent	Response Count
Automated grading system	52.8%	67
Automated or system generated feedback system	29.1%	37
Automated alerts for missed assignments	22.0%	28
Automated alerts to students who do not log on regularly	18.9%	24
Automated group allocation tools	16.5%	21
Automated plagiarism checking/detection (e.g., Turnitin.com)	5.5%	7
Embedded agents for student advice	3.9%	5
System adaptation to user performance	2.4%	3
Automated counseling system	0.8%	1
None of the above	0.0%	0
answered question		127
skipped question		36

General Analytic Method MOOC Research (2014–2017)

GENERAL ANALYTIC METHOD	TOTAL	PERCENT
QUALITATIVE	29	19.3%
QUANTITATIVE	26	43.3%
MIXED METHODS	56	37.3%
TOTAL STUDIES	150	

Specific Analytic Method for MOOC Research (2014–2017)



Location of MOOC Research Team Members (2014–2017)



Country of Origin of MOOC Delivery (2014–2017)



Focus of MOOC Research (2014–2017)

FOCUS	TOTAL	PERCENT
STUDENT-FOCUSED	75	50.0%
DESIGN-FOCUSED	48	32.0%
CONTEXT AND IMPACT	21	14.0%
OTHER	8	5.4%
INSTRUCTOR-FOCUSED	5	3.4%
TOTAL *	157	

*Seven studies had more than one area of focus.

Specific Topics of MOOC Research (2014–2017)



MOOCs... Ten Course/Instructional Design Guidelines



MOOC Instructor Guide #1. Plan and Prepare for the Experience



MOOC Guide #2. Build in Feedback for Each Experience (etc., Peer, Machine, Volunteer, and Self-Assessment)



MOOC Guide #3. Create Interactivities (e.g., use Polling Questions)

Poll #1: Where are you now?

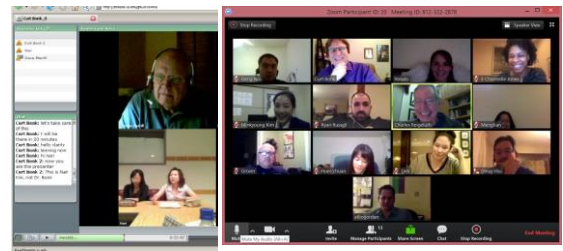
- A. North or South America
- B. Europe
- C. Africa
- D. The Middle East
- E. Australasia



MOOC Guide #4. Provide Variation and Choice



MOOC Guide #5. Combine Sync and Async Instruction (e.g., David Merrill and Charlie Reigeluth)



MOOC Guide #6. Design Responsive and Interactive Learning Communities



MOOC Guide #7. Offer Weekly Recaps and Updates

Let's
Recap

MOOC Guide #8. Personalize the Activity or Experience Where Possible!



MOOC Guide #9. Engage in Resource Sharing



MOOC Guide #10. Be Willing to Change Midstream.



Any Comments or Questions?

Slides at: TrainingShare.com

Papers: PublicationShare.com

Free Book: <http://tec-variety.com/>

MOOCsBook: <http://moocsbook.com/>

