MOOC and Open Education Around the World: Recent News and Research Clues

Curt Bonk, Indiana University
cjbonk@indiana.edu

The Evolution of E-Learning (All 7 year cycles)

MOOC and Open Education Around the World: Recent News and Research Clues

Curt Bonk, Indiana University

The USA Today, Marco della Cava

Microsoft HoloLens: https://www.youtube.com/watch?v=aThCr0PsyuA

Letsee is an AR app from a South Korean company that allows consumers to scan a product and see a product and see a series of product reviews instantly overlaid overtop.

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

June 10, 2015
Augmented reality promises 'superpowers', and people are listening
The USA Today, Marco della Cava

Letsee is an AR app from a South Korean company that allows consumers to scan a product and see a series of product reviews instantly overlaid overtop.

30+ Ways Learning is Changing: The Mega Trends

How Learning is Changing: Mega Trend #1. Learner Engagement

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Letsee is an AR app from a South Korean company that allows consumers to scan a product and see a series of product reviews instantly overlaid overtop.
June 3, 2016
Virtual Reality Lets Med Students Experience What It’s Like To Be 74
Elyse Wanshel, Huffington Post
http://ht.ly/bSpe300XEPJ
Virtual reality tested by NFL as tool to confront racism, sexism
Marco della Cava, USA Today

How Learning is Changing:
Mega Trend #2. Pervasive Access

February 24, 2016
MIT OpenCourseWare
http://ocw.mit.edu/about/15-years/

May 4, 2016 (Access)
This Mongolian Teenager Aced a MOOC
Now He Wants to Widen Their Impact
(140,000 people take the MIT MOOC on Circuits and Electronics, 1 of 300 to get a perfect score)
The Chronicle of Higher Education, Jeffrey R. Young
http://chronicle.com/article/This-Mongolian-Teenager-Aced-a/236362

How Learning is Changing:
Mega Trend #3. Customization

August 1, 2016 (Customization)
363 by Idea Group; Study Café Meeting Place; Idea Space (Seoul, Korea)
http://363.co.kr/wp/?page_id=244
http://363.co.kr/wp/?bw_gallery=study-cafe_11
May 20, 2016 (Customization)
agMOOCs (India)
http://www.agmoocs.in/

April 13, 2016
The Fourth Industrial Revolution:
What it means, how to respond
Klaus Schwab, Founder and Executive Chairman, World Economic Forum
http://www.tubechop.com/watch/6290941

30+ Ways Learning is Changing:
Recapping the Three Mega Trends:
Engagement, Access, and Customization

Audience Poll #1:
Who in here has taken a MOOC?

August 12, 2016 (Customization)
Class Central’s Top 50 MOOCs of All Time,
Dhawal Shah, Class Central Blog
“Now there are close to 6,000 MOOCs from 600+ universities around the world.”

August 12, 2016
A Life of Happiness and Fulfillment
Indian School of Business, Rajagopal Raghanathan
August 30, 2016
Thousands sign up for free online wine course, John Elmes, Wine News
http://www.decanter.com/wine-news/online-wine-course-adelaide-325646/

January 11, 2016
Maps and the Geospatial Revolution
Anthony C. Robinson, Penn State, Coursera
http://chronicle.com/article/Mapping-a-MOOC-Reveals-Global/234795/?cid=at&utm_source=at&utm_medium=en&elq=bf52c7566e1d42d6ac7d42b49e1980ea&elqCampaignId=2208&elqaid=7501&elqat=1&elqTrackId=ed3e40a9614c4a5fb84d8851653a8839

June 14, 2016 (Customization)
World First: University of Michigan’s Dr. Chuck Holds a Graduation Ceremony for MOOC Students
Anuar Lequerica, Class Central

December 25, 2016
By The Numbers: MOOCs in 2016
Dhawa Shah, Class Central

<table>
<thead>
<tr>
<th>Type of MOOC</th>
<th>cMOOC</th>
<th>xMOOC</th>
<th>pMOOC</th>
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<tbody>
<tr>
<td>Learner Role</td>
<td>Active</td>
<td>Passive</td>
<td>Active</td>
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<tr>
<td>Instructor Role</td>
<td>Co-learner</td>
<td>Sage on stage</td>
<td>Guide on the side</td>
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<td>Learning Theory</td>
<td>Constructivism</td>
<td>Behaviorism</td>
<td>Constructivism</td>
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<td>Primary Pedagogy</td>
<td>Knowledge integration</td>
<td>Knowledge duplication</td>
<td>Knowledge production</td>
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<td>Metaphor</td>
<td>“We link movies”</td>
<td>“We watch movies”</td>
<td>“We make movies”</td>
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<td>Development Approach</td>
<td>Learning design</td>
<td>Instructional design</td>
<td>Educational design research</td>
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<tr>
<td>Primary Type of Assessment</td>
<td>Self Assessment</td>
<td>External and/or Peer Assessment</td>
<td>Self and/or Client Assessment</td>
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<td>Funding Source</td>
<td>Seat of the pants funding</td>
<td>Large external funding</td>
<td>Moderate client provided funding</td>
</tr>
</tbody>
</table>

Figure 1. Differences among three types of MOOCs (Reeves & Holbrook, 2014).

January 14, 2016
Why You Should Care That MOOCs Had a Great 2015
Bravetta Hassell, Chief Learning Officer

Data collected by Class Central:
- No longer are MOOC providers offering free certificates. At Coursera, the average course is $56; at edX, it’s $53.
- 75 percent: the amount of courses available in English (was 80 percent in 2014).
- 2,200: courses offered for the first time.
- Reportlinker estimates the MOOC market to grow by nearly $7 billion by 2020.

February, 2016
MOOCWatch Feb 2016: More Students, More Price Points, More Models. Anuar Andres Lequerica is Class Central’s analyst

- Arabic MOOC platform Nadrus has reached 100,000 students.
- Brazilian MOOC platform Veduca has reached 800,000 students.
- Coursera reaches 700,000 MOOCers in Brazil.
- French MOOC platform France has reached 500,000 students.
- FutureLearn has reached 3 million students.
- India: NIIT partners with edX to use MOOCs to train half a million people in tech skills.
- Udemy has reached 10 million students.
- University of London reached 1 million enrollments on Coursera.

July 21, 2016
The Scope of edX
Joshua Kim, Inside Higher Ed

- There are lifelong learners in every country of the world (save North Korea).
- A bit over a quarter (27%) of edX learners come from the U.S. The next biggest country is India (11%), the U.K. and Brazil (both 4%) and China, Canada, and Mexico (3% each).
- Over four-in-ten edX learners live in emerging economy countries.
- Over 840,000 certificates have been earned by edX learners.
- edX has over 100 schools, institutes and organizations in the Consortium creating open online courses.
- Over 1,000 courses have been offered.
- There have been over 2,300 faculty and staff that have taught on edX.

December 25, 2016
Class Central

58M Students
700+ Universities
6850 Courses

Use Of MOOCs And Online Education Is Exploding: Here’s Why
Josh Bersin, Forbes

Activity #1:
During this talk, jot down a research idea on a card. We will share it at the end.
(Note: Best idea gets a MOOCs book.)
35 MOOC Research Topics
1. Learner-Focused
2. Instructor-Focused
3. Course/Instructional Design
4. Impact/Context
5. Other

May 2013
Research Topic #1.
Dropout (i.e., retention) Concerns
MOOCs @ Edinburgh 2013– Report #1

May 2013
Research Topic #3.
MOOC Motivators and Goals
MOOCs @ Edinburgh 2013– Report #1
Bioelectricity: A Quantitative Approach,
Duke University’s First MOOC

Audience Poll #2:
Have you ever dropped a MOOC?
Have you ever completed a MOOC?
http://elearnhero.com/moocs-
completion-rates/

Improving MOOC completion rates
First we need to look at MOOCs completion rate differently
April, 2015
Learners Goals, Motivations, Achievements, Challenges, etc.

June 13, 2014
Research Topic #4.
Learner Engagement with Content
8 Things You Should Know About MOOCs
Chronicle of Higher Education, Jonah Newman and Soo Oh
http://chronicle.com/article/MOOCs-EdX/146901/

January 11, 2016
Mapping a MOOC Reveals Global Patterns in Student Engagement
Chronicle of Higher Education, Anthony C. Robinson
http://chronicle.com/article/Mapping-a-MOOC-Reveals-Global/234795?cid=at&utm_source=at&utm_medium=en&elq=bf52c7566e1d42d6ac7d42b49e1980ea&elqCampaignId=2208&elqaid=7501&elqat=1&elqTrackId=ed3e40a9614c4a5fb84d8851653a8839

October 6, 2015
Research Topic #6.
MOOCs as a Learning Supplement
Using MOOCs to Fill In Your Weak Spots, Hanna Peacock, Inside Higher Ed

May 27, 2015
Research Topic #5.
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

April 21, 2014
Research Topic #7. 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_male.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.
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%. The gap is huge. This is not to say that African nations are not investing in post-secondary education. For example, Nigeria has been steadily building universities during the past couple of decades.

April 20, 2015
Research Topic #8. Case Studies
250 MOOCs and Counting: One Man’s Educational Journey, Chronicle of Higher Education
http://chronicle.com/article/250-MOOCs-Counting-One/329397/?vld=at

If the MOOC movement has faded, nobody told Jima Ngei. Mr. Ngei, who lives in Port Harcourt, Nigeria, has completed and passed 250.

Jima Ngei: ”I had this unrelenting fear that this miracle of free access might evaporate soon.”

May 19, 2016
From MOOC to bootcamp to MIT
MIT News

MIT Data: Prepares to Reenter University
(41-50 year old male, Middle East)
Most interesting experience of my own was my use of MIT OCW to refresh on Calculus. I purchased the textbook and followed one of several calculus options on the site. This was quite successful in re-introducing Calculus, as a prep to re-entering college 28 years after graduation - this time to study for a Master’s.

August 28, 2016
Research Topic #9. MOOC Plagiarism
The New Cheating Economy, Brad Wolverton, The Chronicle of Higher Education
http://www.chronicle.com/article/The-New-Cheating-Economy/237587?cid=at&utm_source=at&utm_medium=en&elqTrackId=57c94038703546fda36eca130ad20e28&elq=ba28e5398d584c278a1266d3473adb&elqaid=10453&elqat=1&elqCampaignId=3922

August 31, 2016
BoostMyGrade.com
http://www.boostmygrade.com/
August 31, 2016
NoNeedtoStudy.com

MOOC Research Openings...
Part 2: Instructor-Focused

October 25, 2014
Research Topic #10.
Faculty Awareness of the Open World

February 2016
Faculty Awareness of the Open World
Going Digital: Faculty Perspectives on Digital and OER Course Materials
Kenneth Green, The Campus Computing Project
http://www.campuscomputing.net/goingdigital2016

July 2016
I. Elaine Allen and Jeff Seaman, Babson Survey Research Group

Research Topic #11. Actual Use of Open Access Resources and Materials
Nature, Openwords, etc.
http://www.openwords.com/
https://www.facebook.com/Openwords
October 29, 2015
Research Topic #12. Admin Support of the Open World

September 2, 2016
Research Topic #13. Instructor MOOC Grading Impacting Motivation
Humans, the Latest MOOC Feature
Carl Straumsheim, Inside Higher Ed

MOOC Research Openings...
Part 3: Course/Instructional Design

Research Topic #14. MOOC Participant Help Giving Behaviors, Learning Communities, and Ecologies
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

July 2015
Research Topic #15. Rubric Analysis of 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

December 30, 2015
Udemy Awards, 2015 Instructor Awards!
August 20, 2015
Research on Unique Pedagogy
Syracuse professor offers free 'Star Trek' class to the public, USA Today, Amari D. Pollard, LeMayne College
http://college.usatoday.com/2015/08/20/syracuse-professor-offers-free-star-trek-class-to-public/

August 24, 2016
Research Topic #17.
Localization of Content and Multicultural Practices
ocMOOCs and hMOOCs
Revolutionizing online education
Professor creates courses tailored to cultural differences
Korea JoongAng Daily, Bong Moon Kim
http://www.kmooc.kr/

2016
Research Topic #18.
Language Availability
State of the MOOC 2016:
A Year of Massive Landscape Change For Massive Open Online Courses, Online Course Report

June 26, 2015
Research Topic #19. Cultural Differences in MOOC Perceptions and Definitions
In China, Where Everything is a MOOC,
Education Week, Justin Reich, HarvardX Research Fellow
http://blogs.edweek.org/edweek/edtechresearcher/2015/05/in_china_where_everything_is_a_mooc.html?r=284759497

The most memorable line from my recent visit to China was this: "We have 12 million K-12 teachers in China who need to receive this particular in-service training, so we started with a group of about 200,000."

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.

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.
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 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."

Chapter 21: U of Philippines Open U
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.

Activity #2: Half-Way Pt.
Which of the research ideas mentioned so far match what you have written down?

MOOC Research Openings...
Part 4: Impact/Context-Focused
Duke MOOCs Around the World
https://www.youtube.com/watch?v=kSQQbR6D8k&feature=youtu.be
April 23, 2015
Research Topic #20. 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

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.”

May 19, 2016
Research Topic #21. MOOC Access and Use (e.g., MOOC listings and ratings schemes)
MOOC lists: Class Central, the MOOC list
https://www.mooc-list.com/
https://www.class-central.com/

October 7, 2015
Research Topic #22. Alternative Delivery Systems
MIT Unveils ‘MicroMaster’s,’ Allowing Students to Get Half Their Degree From MOOCs, Andy Thomason, Chronicle of Higher Education

Building Talent Pipeline
Master’s Degree Is New Frontier of Study Online, August 17, 2013, The New York Times
By Tamar Lewin
http://chronicle.com/article/MOOCs-May-Not-Be-So-Disruptive/140965/
http://extensionengine.com/putting-moocs-to-work-recap-infographic/#.VExR4o3wtjs

Research Topic #23. Economic Value of MOOCs (Assessment Issues)
Will a degree made up of Moocs ever be worth the paper it’s written on?
The University of the People can now hand out degrees to its online students – but will employers take them seriously?, Louise Tickle The Guardian
http://www.theguardian.com/higher-education-network/blog/2014/jun/12/moocs-viable-alternative-traditional-degree

Research Topic #24. Impact of MOOCs Across Age, Gender, and Course Type
Infographic: Global MOOC statistics
eCampus News, Meris Stansbury
http://www.ecampusnews.com/research/infographic-moocs-global-436/
Infographic: https://magic.piktochart.com/output/1747660

Moocs can offer a lot, but they don’t offer the feedback of a traditional degree.

Krisaa Swain, of Knoxville, Tenn., is taking “Operations Management” online to help develop her management skills.
December 23, 2016
HarvardX and MITx: Four Years of Open Online Courses — Fall 2012 - Summer 2016
Isaac Chung, MIT, and Andrew Dean Ho, Harvard

October 6, 2014
Research Topic #25.
High School Student College Prep and Advanced Placement Courses
edX turns attention to high school MOOCs, eSchool News
http://www.eschoolnews.com/2014/10/06/high-school-moocs/

January 11, 2016
7th grade scholarships for MOOC completion
U.S. News and World Report, eSchool News
http://www.eschoolnews.com/2016/01/11/7th-grade-scholarships-for-mooc-completion/

Research Topic #26. Acceptability of MOOCs as Corporate Training
G2g (Googler to Googler) Training
Seven Ways to Corporate MOOC, Udemy blog,
December 23, 2013, Shannon Hughes
https://www.udemy.com/organizations/blog/2013/12/23/seven-ways-to-corporate-mooc/

Classes range from management and public speaking, to parenting and mountain climbing.

July 28, 2016
Udemy
Your opportunity for adventure ends tomorrow — 50% off any course
http://www.udemy.com/courses/
**September 15, 2015**
*Research Topic #27. MOOCs for Social Impact*

Social Learning for Social Impact, edX
Join the world’s first GROOC – a MOOC for groups – to collaborate with others globally and create social change.

https://www.edx.org/course/social-learning-social-impact-mcgillx-groocx
https://www.youtube.com/watch?v=WNg5LFAMdI

**January 27, 2014**
*Research Topic #28. Various Geo-Political Issues*

Coursera Support Center, Why is my country blocked?
Online education platform Coursera blocks students in Syria and Iran, Wamba, Nina Curley

**October 7, 2014**
*ALISON: Global Health Initiatives*

Online Mooc courses deliver Ebola health advice, BBC News, Sean Coughlan

**September 16, 2013**
*Research Topic #29. Issues of Quality*

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.

**Research Topic #30. Impact of Mobile MOOCs**
(e.g., mobile courses on smartphone)

**April 1, 2015**
*Research Topic #31. 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-moocs.aspx
April 30, 2014
Research Topic #32. Impact of Blending FTF Sessions with Online MOOCs
New Learning Hubs Locations Hosted by The New York Public Library and Seven Other Int’l Partners, Coursera Learning Hubs
https://www.coursera.org/about/programs/learninghubs

Learning for Enjoyment Versus Credentials and Badges
“Just play around with ideas for alternatives to printed texts and don’t be afraid to create your own, even if they’re amateurish...I think we need to de-emphasise formal assessment and accreditation and encourage our playful side to see what is possible. Too much informal learning wants to get itself ‘badged’ or validated too quickly and this means its losing its genuine amateur status.”

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/235573?

August 5, 2015
Research Topic #34. Acceptability of Nanodegrees and Microcredentials
How Nanodegrees Are Disrupting Higher Education
John Waters, Campus Technology
http://campustechnology.com/articles/2015/08/05/how-nanodegrees-are-disrupting-higher-education.aspx

January 20, 2016
Coursera Specializations
https://www.coursera.org/browse?utm_medium=email&utm_source=marketing&utm_campaign=aUAR4L-fEeW6i-NodUB9Qw&languages=en
July 28, 2016
Coursera Specializations email
Starting Monday: 9 Top Specializations

January 5, 2016
Use Of MOOCs And Online Education Is Exploding: Here’s Why
Josh Bersin, Forbes
http://www.forbes.com/sites/joshbersin/2016/01/05/use-of-moocs-and-online-education-is-exploding-heres-why/#290acdda7f09

Most of the MOOC providers now offer such credentials (there are over 100) and they include tools like Nanodegrees (Udacity), Credentials of Readiness (Harvard), XSeries (EdX), and many more. It’s not yet clear how well these credentials will be recognized by employers, but that’s where this market is going.

Most of these companies focus on technical education – software skills, IT systems, and other technical topics.

September 22, 2015
Research Topic #35.
MOOC Benefits and Impact
Who’s Benefiting from MOOCs, and Why
Chen Zhenghao, Brandon Alcorn, Gayle Christensen, Nicholas Eriksson, Daphne Koller, Ezekiel J. Emanuel, Harvard Business Review

MOOC Research Openings…
Part 5: Other

MOOC Personalization Survey Results
1. How many MOOCs have you taught? (N = 152)

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
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<tr>
<td>Yes</td>
<td>144</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>Skipped</td>
<td>12</td>
</tr>
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</table>

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

Answered: 145    Skipped: 12

<table>
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<tr>
<th>Answer</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>145</td>
</tr>
<tr>
<td>No</td>
<td>12</td>
</tr>
<tr>
<td>Skipped</td>
<td>145</td>
</tr>
</tbody>
</table>

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

Answered: 143    Skipped: 12

Answer Options:
- Instructor-led (live or pre-recorded)
- Instructor-led (self-paced)
- Face-to-face
- Online
- Hybrid
- Other (please describe)

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<th>Delivery Format</th>
<th>Response</th>
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<tr>
<td>Instructor-led (live or pre-recorded)</td>
<td>91.5% 115</td>
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<tr>
<td>Instructor-led (self-paced)</td>
<td>78.2% 109</td>
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<tr>
<td>Face-to-face</td>
<td>76.1% 108</td>
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<tr>
<td>Online</td>
<td>57.7% 82</td>
</tr>
<tr>
<td>Hybrid</td>
<td>50.7% 72</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>50.0% 71</td>
</tr>
</tbody>
</table>

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

Answer Options:
- Less than 10,000
- 10,000-25,000
- 25,001-50,000
- 50,001-100,000
- More than 100,000

<table>
<thead>
<tr>
<th>Sign-up Count</th>
<th>Response</th>
</tr>
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<tbody>
<tr>
<td>Less than 10,000</td>
<td>47.3% 71</td>
</tr>
<tr>
<td>10,000-25,000</td>
<td>40.8% 58</td>
</tr>
<tr>
<td>25,001-50,000</td>
<td>34.5% 49</td>
</tr>
<tr>
<td>50,001-100,000</td>
<td>32.4% 46</td>
</tr>
<tr>
<td>More than 100,000</td>
<td>26.1% 37</td>
</tr>
</tbody>
</table>

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

Answer Options:
- Establish learner-based discussion forums
- Record video lectures and tutorials
- Create social networks (e.g., Facebook, LinkedIn)
- Provide course announcements and emails
- Schedule virtual office hours and meetings
- Hold synchronous lectures, meetings, and events (e.g., Skype, Google Hangouts)
- Use popular media (e.g., news stories and videos)
- Use interactive assessments
- Use problem and project-based learning
- Use job aids and study guides
- Use online lectures and tutorials
- Use interactive assessments
- Use visualizations (e.g., concept maps, diagrams, flowcharts, timelines, etc.)
- Use animations and other types of animated or interactive contents
- Use simulations and games
- Use expert interviews
- Use mobile applications
- Use course readings (including textbooks, literature, scientific & tech reports)
- Use case studies and examples
- Use other (please describe)

<table>
<thead>
<tr>
<th>Answer Option</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish learner-based discussion forums</td>
<td>91.5% 130</td>
</tr>
<tr>
<td>Record video lectures and tutorials</td>
<td>76.8% 109</td>
</tr>
<tr>
<td>Create social networks (e.g., Facebook, LinkedIn)</td>
<td>76.1% 108</td>
</tr>
<tr>
<td>Provide course announcements and emails</td>
<td>57.7% 82</td>
</tr>
<tr>
<td>Schedule virtual office hours and meetings</td>
<td>50.7% 72</td>
</tr>
<tr>
<td>Hold synchronous lectures, meetings, and events (e.g., Skype, Google Hangouts)</td>
<td>50.0% 71</td>
</tr>
<tr>
<td>Use popular media (e.g., news stories and videos)</td>
<td>47.9% 68</td>
</tr>
<tr>
<td>Use interactive assessments</td>
<td>44.4% 63</td>
</tr>
<tr>
<td>Use problem and project-based learning</td>
<td>43.0% 61</td>
</tr>
<tr>
<td>Use job aids and study guides</td>
<td>42.3% 60</td>
</tr>
<tr>
<td>Use online lectures and tutorials</td>
<td>39.4% 56</td>
</tr>
<tr>
<td>Use interactive assessments</td>
<td>28.9% 41</td>
</tr>
<tr>
<td>Use problem and project-based learning</td>
<td>28.2% 40</td>
</tr>
<tr>
<td>Use job aids and study guides</td>
<td>18.3% 26</td>
</tr>
<tr>
<td>Use online lectures and tutorials</td>
<td>15.5% 22</td>
</tr>
<tr>
<td>Use other (please describe)</td>
<td>14.8% 21</td>
</tr>
<tr>
<td>Use course readings (including textbooks, literature, scientific &amp; tech reports)</td>
<td>14.1% 20</td>
</tr>
<tr>
<td>Use case studies and examples</td>
<td>14.0% 19</td>
</tr>
<tr>
<td>Use other (please describe)</td>
<td>12.0% 17</td>
</tr>
</tbody>
</table>

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

Answer Options:
- Discussion forums or threads
- Video lectures and tutorials
- Course readings (including textbooks, literature, scientific & tech reports)
- Practice quizzes and exams
- Simulations and games
- Animations and other types of animated or interactive contents
- Social media (e.g., Facebook, Instagram, Snapchat, Twitter, Pinterest, etc.)
- Mobile applications
- Video examples (e.g., TED talks, YouTube, etc.)
- Jobs aids and study guides
- Visuals (e.g., concept maps, diagrams, flowcharts, timelines, etc.)
- Expert interviews
- Other (please describe)

<table>
<thead>
<tr>
<th>Resource Type</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion forums or threads</td>
<td>91.5% 130</td>
</tr>
<tr>
<td>Video lectures and tutorials</td>
<td>76.8% 109</td>
</tr>
<tr>
<td>Course readings (including textbooks, literature, scientific &amp; tech reports)</td>
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</tr>
<tr>
<td>Practice quizzes and exams</td>
<td>57.7% 82</td>
</tr>
<tr>
<td>Simulations and games</td>
<td>50.7% 72</td>
</tr>
<tr>
<td>Animations and other types of animated or interactive contents</td>
<td>50.0% 71</td>
</tr>
<tr>
<td>Social media (e.g., Facebook, Instagram, Snapchat, Twitter, Pinterest, etc.)</td>
<td>47.9% 68</td>
</tr>
<tr>
<td>Mobile applications</td>
<td>44.4% 63</td>
</tr>
<tr>
<td>Video examples (e.g., TED talks, YouTube, etc.)</td>
<td>43.0% 61</td>
</tr>
<tr>
<td>Jobs aids and study guides</td>
<td>42.3% 60</td>
</tr>
<tr>
<td>Visuals (e.g., concept maps, diagrams, flowcharts, timelines, etc.)</td>
<td>39.4% 56</td>
</tr>
<tr>
<td>Expert interviews</td>
<td>28.9% 41</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>28.2% 40</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>18.3% 26</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>15.5% 22</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>14.8% 21</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>14.1% 20</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>14.0% 19</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>12.0% 17</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>12.0% 17</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>9.9% 14</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>9.9% 14</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>4.9% 7</td>
</tr>
</tbody>
</table>
16. In what ways is peer interaction encouraged in your MOOC? [Check all that apply; N = 137]

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance based forums</td>
<td>52.8%</td>
<td>67</td>
</tr>
<tr>
<td>Assigning pair-based assignments or peer reviews (e.g., utilization of chat tools)</td>
<td>49.0%</td>
<td>60</td>
</tr>
<tr>
<td>Learner moderated or encouraged</td>
<td>40.0%</td>
<td>50</td>
</tr>
<tr>
<td>Self-formed peer groups</td>
<td>36.5%</td>
<td>49</td>
</tr>
<tr>
<td>Synchronous conferencing and chat tools</td>
<td>36.5%</td>
<td>49</td>
</tr>
<tr>
<td>Task assignments</td>
<td>36.5%</td>
<td>49</td>
</tr>
<tr>
<td>System formed collaborative teams</td>
<td>31.3%</td>
<td>40</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offer transcripts of video or audio content</td>
<td>62.9%</td>
<td>88</td>
</tr>
<tr>
<td>Add subtitles to video content</td>
<td>53.0%</td>
<td>78</td>
</tr>
<tr>
<td>Be careful with language use and hand gestures</td>
<td>51.9%</td>
<td>69</td>
</tr>
<tr>
<td>Simplify the language used</td>
<td>42.1%</td>
<td>56</td>
</tr>
<tr>
<td>Slow the pace of speech</td>
<td>38.6%</td>
<td>49</td>
</tr>
<tr>
<td>Simplify the course content and navigation</td>
<td>27.1%</td>
<td>38</td>
</tr>
<tr>
<td>Limit text by relying more on pictures</td>
<td>19.5%</td>
<td>26</td>
</tr>
<tr>
<td>Encourage participants to translate and localize content</td>
<td>18.0%</td>
<td>24</td>
</tr>
<tr>
<td>Other (Please describe):</td>
<td>15.8%</td>
<td>21</td>
</tr>
<tr>
<td>Translate the content to different languages</td>
<td>11.3%</td>
<td>15</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option or materials: videos, images, or other materials</td>
<td>67.6%</td>
<td>81</td>
</tr>
<tr>
<td>Learning contracts or other agreements (e.g., certificates, badges, course credit, etc.)</td>
<td>64.3%</td>
<td>78</td>
</tr>
<tr>
<td>Options with course tasks and assignments</td>
<td>38.1%</td>
<td>46</td>
</tr>
<tr>
<td>Learner discussion and negotiation of content</td>
<td>30.2%</td>
<td>38</td>
</tr>
<tr>
<td>Two or more media elements to learn the course content</td>
<td>21.7%</td>
<td>28</td>
</tr>
<tr>
<td>Learner determined or negotiated content</td>
<td>30.2%</td>
<td>38</td>
</tr>
<tr>
<td>Learner selected learning pathways (i.e., different routes to learn the content)</td>
<td>18.7%</td>
<td>23</td>
</tr>
<tr>
<td>Learner portfolios of course accomplishments</td>
<td>10.3%</td>
<td>13</td>
</tr>
<tr>
<td>Choice in team or collaborative partner (i.e., self-formed teams)</td>
<td>6.7%</td>
<td>9</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor feedback</td>
<td>66.0%</td>
<td>88</td>
</tr>
<tr>
<td>System or computer feedback</td>
<td>63.9%</td>
<td>85</td>
</tr>
<tr>
<td>Other (Please describe):</td>
<td>6.7%</td>
<td>9</td>
</tr>
<tr>
<td>Self feedback</td>
<td>5.9%</td>
<td>8</td>
</tr>
<tr>
<td>Moderator, tutor, or teaching assistant feedback</td>
<td>5.9%</td>
<td>8</td>
</tr>
<tr>
<td>Task or assignment rubrics</td>
<td>5.9%</td>
<td>8</td>
</tr>
<tr>
<td>Peer feedback</td>
<td>5.9%</td>
<td>8</td>
</tr>
<tr>
<td>Other (Please describe):</td>
<td>5.9%</td>
<td>8</td>
</tr>
<tr>
<td>Automated alerts to students who do not log on regularly</td>
<td>5.9%</td>
<td>8</td>
</tr>
<tr>
<td>Out of class expected feedback</td>
<td>5.9%</td>
<td>8</td>
</tr>
</tbody>
</table>

Recent MOOC research
Dragan Gasevic and colleagues (including George Siemens), 2014, IRRODL, 15(5)

Table 14
Phase 2 Top 5 Research Fields
Field   Authors
Education 206
Computer Science 21
Engineering 12
Industry 0
Social Sciences 6

Table 15
Phase 2 Geographical Distribution of the Authors
Region   Authors
Asia 17
Australia/NZ 12
Europe 40
North America 137
South America 3

George Veletsianos & Peter Shepherdson’s Study (2016)
Systematic Analysis And Synthesis of the Empirical MOOC Literature Published in 2013-2015

‘Dependence on Particular Research Methods May Restrict our Understanding of MOOCs’

Veletsianos & Shepherdson (2016)

Table 6
Frequency (Percentage) of Data Analysis Methods Used
Analytic Method             Frequency (%) of Total Papers
Descriptive statistics      93.4
Causalistical                92.3
Basic qualitative           38.8
Experimental and quasi-experimental 28.7
Grounded Theory             7.6
Natural Language processing 7.6
Social Network Analysis     6.6
ethnography                 4.4
Phenomenology               2.2
discourse analysis           1.0

MOOC Research Review, 2014–2017

• Empirical studies between 2014–2017
• 150 studies
• Focus on research methods/paradigms and topics of research

Primary Journals for MOOC Publication (2014–2017)

<table>
<thead>
<tr>
<th>JOURNAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Review of Research in Open and Distance Learning (IRRODL)</td>
<td>33</td>
</tr>
<tr>
<td>Computers &amp; Education</td>
<td>11</td>
</tr>
<tr>
<td>British Journal of Educational Technology</td>
<td>9</td>
</tr>
<tr>
<td>Online Learning</td>
<td>7</td>
</tr>
<tr>
<td>Distance Education</td>
<td>5</td>
</tr>
<tr>
<td>Educational Media International</td>
<td>5</td>
</tr>
<tr>
<td>Internet and Higher Education</td>
<td>5</td>
</tr>
<tr>
<td>Journal of Asynchronous Learning Network</td>
<td>5</td>
</tr>
<tr>
<td>Journal of Computer Assisted Learning</td>
<td>5</td>
</tr>
<tr>
<td>Computers in Human Behavior</td>
<td>4</td>
</tr>
<tr>
<td>Open Learning</td>
<td>4</td>
</tr>
<tr>
<td>Journal of Online Learning and Teaching</td>
<td>3</td>
</tr>
</tbody>
</table>
Focus of MOOC Research (2014–2017)

<table>
<thead>
<tr>
<th>FOCUS</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENT FOCUSED</td>
<td>75</td>
<td>50.0%</td>
</tr>
<tr>
<td>DESIGN FOCUSED</td>
<td>48</td>
<td>32.0%</td>
</tr>
<tr>
<td>CONTEXT AND IMPACT</td>
<td>21</td>
<td>14.0%</td>
</tr>
<tr>
<td>OTHER</td>
<td>8</td>
<td>5.4%</td>
</tr>
<tr>
<td>INSTRUCTOR FOCUSED</td>
<td>5</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>157</td>
<td></td>
</tr>
</tbody>
</table>

*Seven studies had more than one area of focus.

Specific Topics of MOOC Research (2014–2017)

- SELF-REGULATED LEARNING
- CHEATING
- SOCIAL LEARNING
- MOTIVATION
- ENGAGEMENT
- SATISFACTION
- ASSESSMENT/MODELS/EVALUATION
- PROFESSIONAL DEVELOPMENT
- COMMUNICATION/INTERACTION
- LEARNERS' EXPERIENCE
- QUALITY OF MOOC
- RETENTION AND COMPLETION/DROPOUT
- INSTRUCTIONAL/MOOC DESIGN
- K-12/PRE-COLLEGE
- PERFORMANCE/OUCLICNE

Data Sources of MOOC Research (2014–2017)

- DESIGN NARRATIVES
- DISCUSSION FORUM DATA
- PLATFORM DATA
- ASSIGNMENT
- FOCUS GROUP INTERVIEW
- LEARNING ANALYTICS
- OBSERVATION JOURNALS
- GRADES
- SOCIAL MEDIA
- OBSERVATION
- INTERVIEW

Audience Poll #3:
Would you like to research MOOCs now? What was your idea?
A. Yes...
B. No...

MOOCs and Open Education Around the World

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

Ten “10” MOOC Instructor Guidelines
MOOC Instructor Guide #1.
Plan and Prepare for the Experience

Plan! Prepare! Practice!

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. Australia

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!


Want “FREE” engagement?
How about “Adding Some TEC-VARIETY”?
http://tec-variety.com/

Where are we headed?
Where to conduct MOOC research?
February 2016
NMC Horizon Report > 2016 Higher Ed Edition
[Image]

May 4, 2016
MOOC 4.0: The Next Revolution in Learning & Leadership
Otto Scharmer, Huffington Post
[Image]

October 23, 2016
Ben Gose, The Chronicle of Higher Education
[Image]

July 21, 2016
Facebook's Aquila drone completes first test flight
Jessica Guynn, USA Today
[Image]

An aerial view of Aquila, a autonomous aircraft Facebook is designing to deliver mobile broadband networks to isolated people (mission to fly 60,000 above Earth for up to 3 months at a time; current record for solar-powered unmanned flight is 2 weeks). (Photo: Facebook)

Things are heating up!

A transformation in education is coming within reach!
Poll 4: Who is now interested MOOCs...?

Remember for MOOCs and Open Education to make an impact:
“I cannot do this alone.”
“I cannot do this alone.”
“I cannot do this alone.”

Any Questions or Comments?

MOOCsBook: http://moocsbook.com/
Slides at: TrainingShare.com
Papers: PublicationShare.com
Free book: http://tec-variety.com/
Email: curt@worldisopen.com