Source:
Anders, A. (2015). Theories and applications of massive online open courses (MOOCs): The case for hybrid design. The International Review of Research in Open and Distributed Learning, 16(6).

2017.03.15

Theories and Applications of MOOCs: The Case for Hybrid Design

ILED SEMINAR

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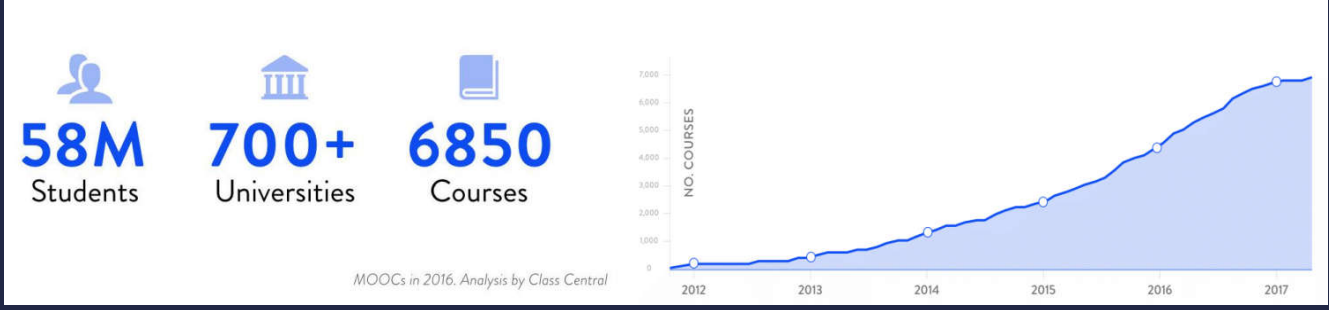
Table of Contents

Introduction

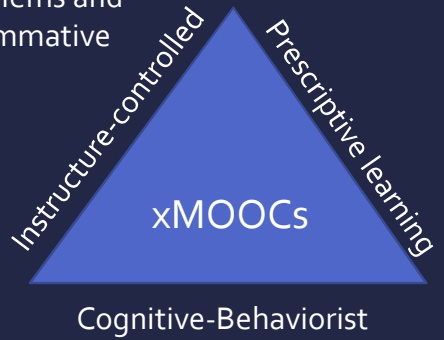
- Delivered through centralized (e.g., LMS) and decentralized platforms (blog, SNS)
- Designed to support:
  - university curricula,
  - academic scholarship,
  - community outreach,
  - professional development and
  - corporate training applications.
- Challenges:
  - low completion rates,
  - high development costs,



MOOCs

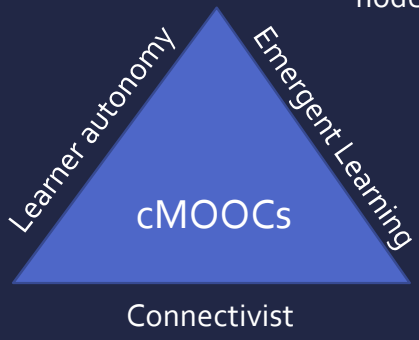
Content:
- Instructure-determined
- Short Video Lectures, quizzes, readings, practice problems and cases and summative testing.

Communication
- Limited interaction
- Build in the MOOC platform



Content:
- Flexible, open
- Weakly readings & webinars
- Learners created (portfolio)

Communication
- Blog, SNS
- Diverse and dense connections among participants, information nodes, tools, and resources.



MOOCs

A Conceptual Model of Theories and Applications of MOOCs

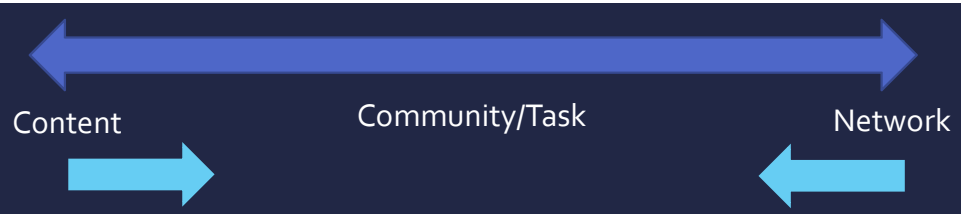
Learning Theories		
Prescriptive Learning		**Emergent Learning**
Predictable/complicated		*Complex/adaptive*
Hierarchical, centrally controlled by experts, replicated and transmitted at scale to users		Decentralized and distributed, collaborative and self-organized, created at scale by users
(Williams, Karousou, & Mackness, 2011; Williams, Mackness, & Gumtau, 2012)		
Cognitive-behaviorist	**Social-constructivist**	**Connectivist**
Individuals	*Groups/Communities*	*Crowds/Networks*
Individual, stimulated, encoded; knowledge is acquired by individual learners through an expert-designed and scaffolded learning process or training program	Social, participatory, contextual; knowledge is constructed through process of socialization that negotiates individual experience with multiple perspectives	Distributed, networked, adaptive; knowledge is navigated and created by making connections across networks of people, information, and resources to address emergent challenges
(Anderson & Dron, 2011; Downes, 2012; Siemens, 2005)		
Pedagogy	**Andragogy**	**Heutagogy**
Instructor Control		*Learner Autonomy*
Instructor-directed and determined learning; highly structured and controlled; low levels of learner autonomy, self-directedness	Self-directed learning; learner directs content-focus and learning path with instructor guidance and support; emphasis on competencies and skill development	Self-determined learning; learner fully determines learning goals and processes; emphasis on higher-order capabilities, critical thinking, and learning 'how to learn'

(Beaven, Hauck, Comas-Quinn, Lewis, & de los Arcos, 2014; Blascke, 2012)

xMOOCs Hybrid cMOOCs

MOOC Applications		
xMOOCs	**Hybrids**	**cMOOCs**
Content-based	*Community and Task-based*	*Network-based*
One-to-many model; expert-driven learning at scale	Community; guided, social learning activities	Peer-2-peer; self-organized, networked learning

Hybrid MOOCs



A Taxonomy of Hybrid MOOC Design

Hybrid MOOC Design			
	xMOOCs	**Hybrids**	**cMOOCs**
Primary Types	*Content-based* One-to-many model; expert-driven learning at scale	*Community and Task-based* Community; guided, social learning activities	*Network-based* Peer-2-peer; self-organized, networked learning
Learning Theories	Prescriptive Cognitive-behaviorist Pedagogy	Prescriptive/Emergent Social-constructivist Andragogy	Emergent Connectivist Heutagogy
MOOC Applications	Blended and Wrapped xMOOCs	DS106, DOCC13, FSLT12, OTL12	ETMOOC13, OCTEL13

1- Content-based Hybrids

Hybrid MOOC Design

	xMOOCs	Hybrids	cMOOCs
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= High quality content of xMOOCs + Richer social learning experience

a. Blended or Flipped:

Video-based instruction
Automated assessment
(from MOOC)

+

Interactive f2f activities
(teacher support for deep understanding, project-based, problem-based learning)

b. Self-organized social networks:

- xMOOCs' online groups in official course forums and external social media services
- Local study groups and f2f meetings

→ Challenge: to help learners negotiate diverse learning contexts and levels of autonomy

2- Community and Task-based Hybrids

Hybrid MOOC Design

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- Integrating open network participants with a single small-group course at university and/or
- Supporting a federation of small-group courses across multiple universities
- Task-based MOOCs → structured activities with focused learning objectives
  - Activities → assignments, projects, etc.
  - Learning objectives → skills, learning artifacts
- Mix of instructivism and constructivism, mostly having connectivist and network-based elements.

2- Community and Task-based Hybrids

Hybrid MOOC Design

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a. Community and task based (Ex: DS 106 Digital Storytelling)

- Participants produce **artifacts** via individual blog and SNS and **share** them for public engagement and discussion
- Activities have two features:
  - Assignment Bank → promotes peer review & community knowledge creation
  - Daily Create → engage learners in production of artifacts
- Course depends on earning points from assignments

b. Community based (Ex: Dialogue in Feminism and Technology in FemTecNet)

- Self-described distributed open collaborative course (**DOOC**)
- Participation from universities, individual scholars and faculty, ad hoc study groups and individual students
- Emphases social-constructivism including dialogue, a diversity of perspectives and socially-negotiated knowledge production

→ **Organizations** might **lead** MOOCs in order to
- promote specific project/initiatives,
- build strong relationship among members and
- attract new ones

2- Community and Task-based Hybrids

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c. Task-Based (Ex: : First Steps in Teaching and Learning -FSLT12-)

- Small, task-based cMOOC
- Developed to support new lecturers, PhD students who teach, people come HE from industry
- Use "MOOC veteran" strategy → active-experienced learners ~ less-experienced
- Providing extensive scaffolding for social & technical skills and task-based design for learning activities

3- Network-based Hybrids

Ex: Educational Technology and Media (ETMOOC)

Hybrid MOOC Design

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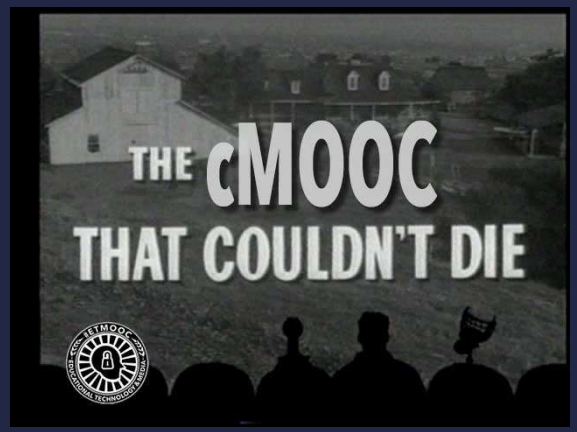
- Providing support for professional development of researchers and practitioners
- Course procedure:
  - One week orientation for technologies, networks and activities
  - Providing scaffolding for facilitators and session leaders to lead course activities and mentoring novice participants

#ETMOOC THE BLOG HUB

http://etmooc.org/hub/

strong **ownership** of course



http://cogdogblog.com/2015/05/the-cmooc-that-would-not-die/

3- Network-based Hybrids

Ex: Educational Technology and Media (ETMOOC)

Hybrid MOOC Design

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- **3 factors** for active participation:

  → prior cMOOC experience, confidence and motivation.

- How to promote these elements?
  - use of mentors,
  - networking activities to engage novices,
  - learning activities focusing on specific tasks and skill sets, and
  - activities designed to lower the threshold of active participation.

Discussion & Conclusion

- Hybrid designs enable xMOOC and cMOOC experiences with
  - social interaction,
  - community engagement and
  - supportive course structure that scaffold technology-use and self-determined learning
- **Most effective** xMOOCs & cMOOCs with
  - community and task-based instructional strategies and,
  - social-constructivist and andragogical learning theories

Discussion & Conclusion

- Community-based strategies;
  - Relate to social-constructivism, address connectivist and network-based social interactions
  - Connect course with external platforms (other participants & discussion)
  - Help connect novice learners with more experienced learners
  - Offer social experiences
- Task-based instructional strategies;
  - Provide supportive structure to help promote and enable the active exercise of autonomies learning.
  - Enable and focus learning through the completion of specific goals and development of discrete skills

Future of Hybrid Design

- Hybrids based on xMOOC in traditional university settings
- Cross-institutional courses, communities, dialogue among students in different classes

  → foster a diverse community of learners

QUESTION

Issue of real-teacher presence in wrapped MOOCs?

Q/A