

MOOC Activity and Design

Dr. Kathlyn Bradshaw

A study of instructional designers' perceptions supports the notion of cultural historical activity theory (CHAT) as a relevant framework for mapping the crossover between formal and informal e-learning in massive open online course (MOOC) design. As Hall (2009) stated, to optimize learning, formal and informal learning should be connected, and learning is most effective when learners engage in both formal and informal learning activities.

CIDER

November 1, 2017

The Frankenstein Bicentennial Project – Arizona State University

MOOCenstein: Frankenstein Goes Global

This working group will discuss the development of a Massive Open Online Course (MOOC) to be produced by an interdisciplinary group of scholars across a range of institutions, and to be offered during the 2016-2018 bicentennial celebration and beyond. The MOOC will use the novel Frankenstein as a gateway for connecting STEM content with humanities, social sciences and arts, and it is designed to will create an international community of thinkers critically engaged with the ethical, legal and societal issues raised by Frankenstein beyond traditional college and university environments. The group will also advance efforts to establish Frankenstein as a “One Book” that is simultaneously enjoyed and discussed around the world during the two-year bicentennial celebration. This collective reading experiment will invite a diverse public into a dialogue that models the freewheeling intellectual discourse of Shelley’s day, mixing chemistry, poetry, biology and other subjects with the urgent ethical concerns of a world where artificial life is not a dream but, increasingly, a reality. (ASU, 2014)

The Research Setting

Types	Focus	Level of Formality
cMOOCs	<ul style="list-style-type: none">• Students to choose what to learn & how:• create connections• make connections between concepts• build networks to keep current in a field <p>(Downes, 2012)</p>	Primarily informal learning opportunities
xMOOCs	<p>Mass access to the lectures, readings, discussions, assignments, and assessments a student would find in a traditional college class</p> <p>(Haber, 2014)</p>	Primarily formal learning opportunities

***From Frankenstein to Post Humanism* designed as a MOOC with a bit of both**

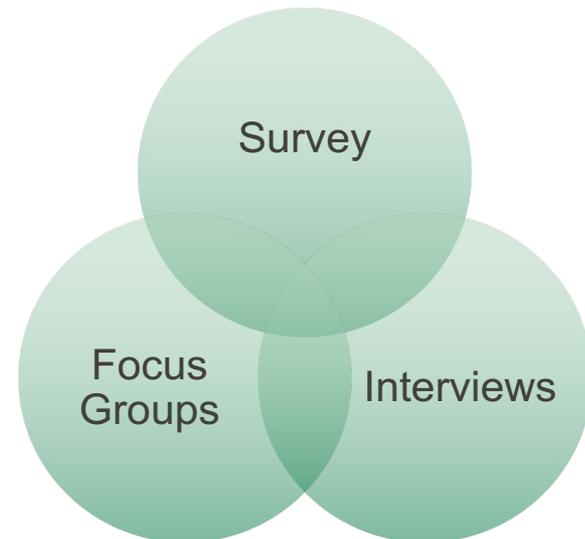
Research Question, Methods, and Methodology

How do instructional designers perceive learners' opportunities for boundary crossing between formal and informal learning within a MOOC design?

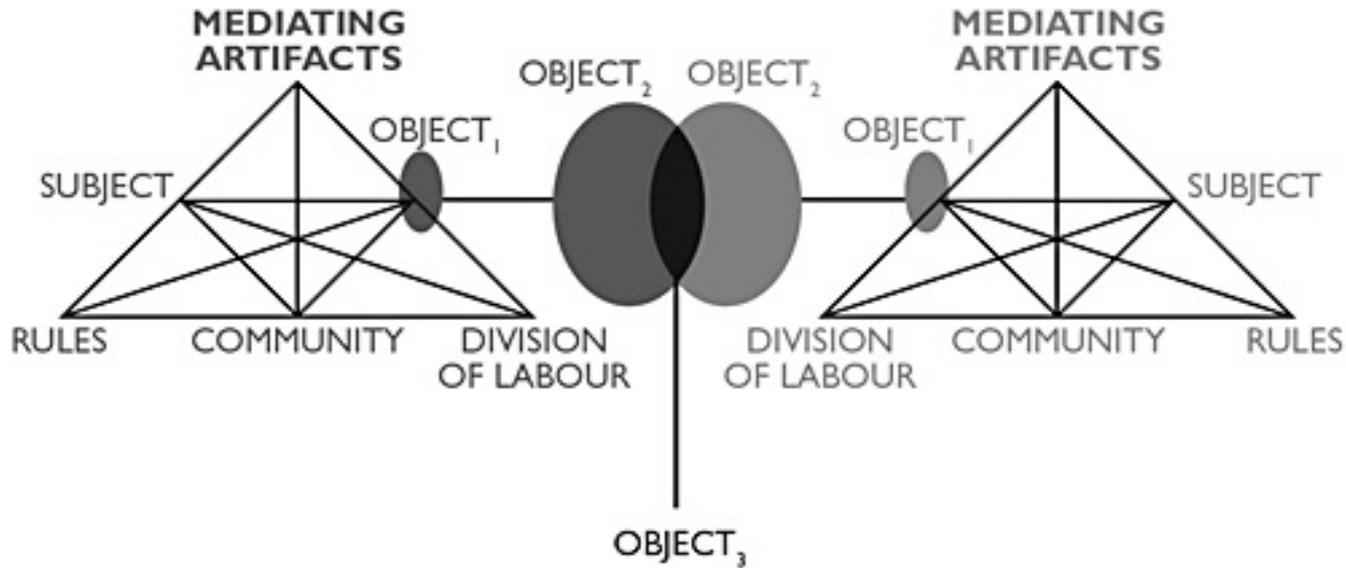
- Where do instructional designers perceive opportunities for formal learning in designed activities?
- Where do instructional designers perceive opportunities for informal learning in designed activities?
- Where do instructional designers perceive opportunities for learners to cross boundaries between formal and informal learning within designed activities?

Case Study: Bound by time and context; multiple data sources

Participants: 8 instructional designers (Canada & US, post-secondary)



Theoretical Framework



cMOOCs as primarily informal learning activity systems	<i>From Frankenstein to Post Humanism</i> MOOC – Designed to be in between	xMOOCs as primarily formal learning activity systems
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Tensions and CHAT Elements

- *primary* involves tensions arising anywhere within any of the CHAT elements
- *secondary* involves tensions arising between CHAT elements;
- *tertiary* involves tensions arising between an old and a new activity system
- *quaternary* involves tensions arising between activity systems

(Engeström, 1987, p. 189).

CHAT and Tensions

Object(ive)s tension arose between the certain purpose of formal learning contrasted with potential choices in informal.

Mediating artifacts were identified as those most often associated with formal learning, typically an LMS, while for informal learning social media (YouTube, Twitter, and so on) were identified.

Community formal learning involved teachers and instructors, while informal learning had a community of peers and life-long learners. *D*

Division of labour involved the teachers and instructors planning and facilitating formal learning, in contrast to non-facilitated self-directed informal learning.

Comparison of CHAT elements across the two activity systems pointed to quaternary tensions. These tensions in turn may indicate the potential for contradictions “historically accumulating structural tensions within and between activity systems” (Engeström, 2001, p. 137), or boundary crossings.

FINDINGS:

Clarity on “Formal Learning”

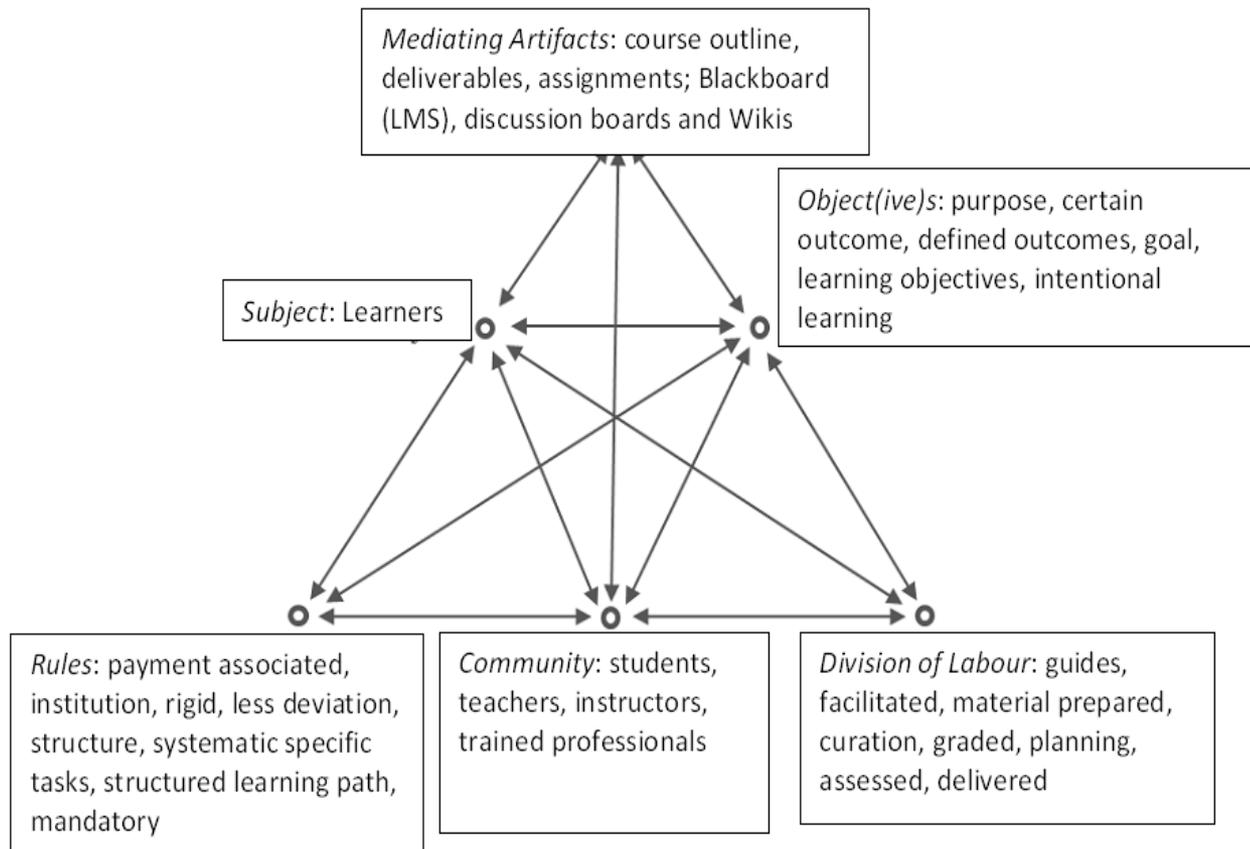


Figure 4.1. Participant perceptions of a formal learning activity system. Adapted from “Expansive Learning: Towards an Activity Theoretical Conceptualization,” by Y. Engeström, 2009, in *Contemporary Theories of Learning*, K. Illeris (Ed.), p. 56, copyright 2009 by Routledge Press.

Findings: Ambiguity about “Informal Learning”

Participant	Definition	Literature	Definition
ID7	“not.. Facilitated”	Tusting (2003)	“unplanned” (p. 8)
ID6	“not an intended learning outcome or product”		“often implicitly taken to mean simply the opposite of formal learning” (p. 6)
	“not packaged”		“unpremeditated” (p. 5)
ID5	“very unstructured”	Crowley, et al. (2014)	“non-standardized” (p. 466)
ID4	“no limitation”	Schwier & Seaton (2013)	“independent” (p. 2)
ID3	“aren’t instructions”	Wright et al. (2013)	“incidental” (p.54)

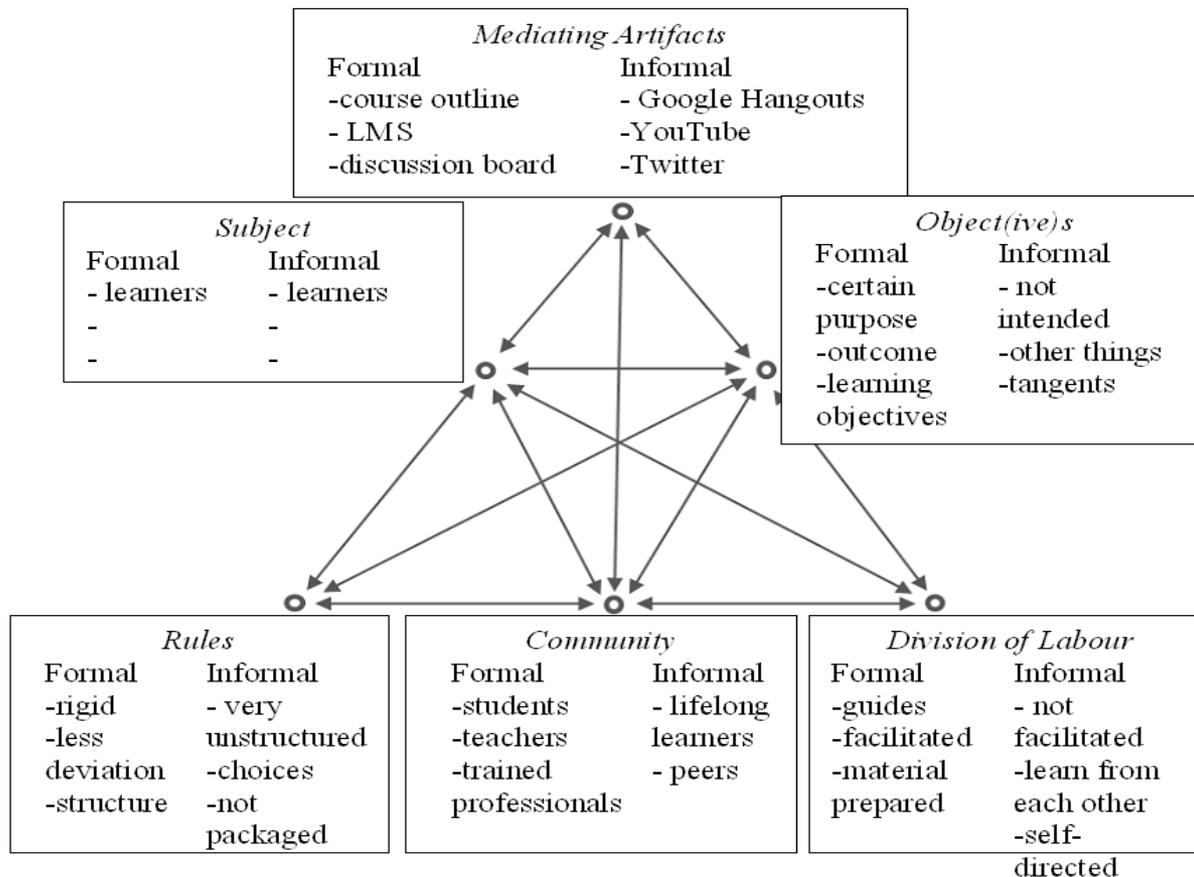


Figure 6.3. MOOC Activity System Mapping Example.

OUTCOME:

Design Tool for a MOOC

FUTURE DIRECTIONS:

Future research: MOOC implementation

Allow insights into the subject (learners)

Instructional designers' perceptions compared with those of learners participating in the MOOC

Examine findings to identify similarities and differences and consider why

References

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