From: http://blogs.umb.edu/edtechnews/2013/03/22/moocs-on-campus/

Background: UMass Boston's educational technology newsletter recently posted an article on the growth of "MOOCs" – Massively Open Online Courses. The excerpt below offers a brief section from the longer article:

MOOCs on Campus

Posted by: eleanor.kutz | March 22, 2013

If you've been following news reports about higher education, you know that MOOCs (Massive Open Online Courses), using online technologies to offer courses open to the world, are capturing the imagination of education prognosticators who see them either as benefits or as threats to traditional universities and the students they serve. UMass Boston is offering its first MOOC this spring, "Molecular Dynamics for Discoveries in Computational Science," taught by Nishikant Sonwalker, adjunct professor Physics and founder of Synaptic Global Learning , to be followed in June by a second MOOC on Coasts and Communities, and the Center for Innovation and Excellence in E-Learning (CIEE) in the College of Advancing and Professional Studies held a symposium on "The Sustainability of MOOCs in Higher Education" in December to prepare the way.

The idea of providing educational content for free to a larger public isn't new, and one of my favorite posts on the subject, "A People's History of MOOCs'" by librarian Barbara Fisher, looks back to the building of the Boston Public Library in 1865 with its inscription "Free to All" as a milestone in such efforts (Inside Higher Education, November 29, 2012).

Although MOOCs are suddenly in the news, in some sense they've been developing for a long time, as new technologies led to video tutorial projects and multimedia instruction while the development of the internet stimulated further efforts to make educational resources widely available online, and there were several concurrent efforts, including the Open Course Ware initiative that a number of our faculty have been involved in to make course content freely available. But the development of the MOOC as a new model, providing not only open content but open course software, took off in 2011 when Stanford offered several free open courses quickly enrolled large numbers of students (165,000 in the first computer science course), and two Stanford professors, Andrew Ng and Daphne Koller, launched Coursera to create a delivery platform for such courses with the intentions both of providing rich educational content to a world-wide audience and of changing g the in-class lecture model within the university (flipping the classroom). Edex at MIT and Harvard was developed around the same time, offering a non-profit alternative to Coursera and one that our own MOOC activities are connected to. And in a short time MOOCs have reached across countries and also across disciplines, with Coursera now offering 328 courses from 62 universities, to 2.9 million registered users, in 220 countries. And, to my surprise, 28% of those courses are in the arts and humanities (Waldrop, 2013).

It's clear that MOOCs have the potential to reach large numbers of students around the world and that, with significant resources being put into content development, they can provide a well-designed pathway to learning for those students who stick with them.

It seems that the upside of MOOCs, the ideal, is that

- They can make high quality educational content available to all, everywhere
- They're gaining lots of interest from learners who can access that content anywhere.
- They are fueling the development of best learning materials, including interactive ones.
- They can address the needs of individual learners as new technology, such as that being developed by Nishikant Sonwalker's company, allows online course environments to analyze how individual students learn and to customize instruction to individualized learning strategies while gathering data that can provide valuable information to professors about what's working for their students.

But so far there are downsides as well, including:

- The difficulty of figuring out a revenue stream that will support the development of courses while making them available to all
- The problem of attrition, with a huge investment going, in the end, to serve the much smaller number of students who currently finish courses
- The problem of how to assess students' learning
- The fact that the professor of a MOOC can have limited or no personal interaction with so many students (although some say that peer learning and even peer assessment can make up for this). Some institutions are supplementing MOOC-delivered content with face-to-face classroom instruction in a flipped classroom approach (a model that Brian White in Biology will be working with).

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Additional sections continued on web site

From: http://pcrcr.wordpress.com/2012/03/08/four-kinds-of-online-courses-student-expectations-to-match-them/

Background: From Peter Taylor's blog, thoughts on understanding additional breakdown of possibilities within "online" courses:

Four kinds of online courses & student expectations to match them

March 8, 2012

The first challenge for an online college instructor is to make clear to students which kind of online course they are running:

1. Programmed, self-paced learning over the course of a semester. (In principle, the student could do all the work in the last week of the semester.)
2. Programmed, self-paced learning, but with products required each week (which may include postings visible to the other students). (In principle, the student could do all the work in the last few hours of the week.)
3. Asynchronous course work, but with expectations of reading and responding to postings by other students or group projects with products required at various points, possibly every week.
4. At-a-distance participation in synchronous sessions each week, with preparation beforehand and followup afterwards in the same fashion as for face-to-face classes.

Students who expect #1 or #2 often think that they can complete the work in less time than they would take for a face-to-face class. This even when start-of-class guidelines state that time not spent in class should be added to the standard expectation of a face-to-face class for 2-3 hours outside class for each hour in class (i.e., about 10.5 hours/week for a 3-credit online course).

Students in a #3 style course may, like for #2, try to do all the work in the last few hours of any given unit. When they do that, they can (in principle) read the postings of all the other students, but it is unlikely that the other students will return to the unit and read their comments. Even if postings are spread throughout the week, it is a challenge for the teacher to get students to read postings that are made after their own.

For #4, it is difficult to schedule regular synchronous sessions for as many hours as in a face-to-face course. Students often miss more of the synchronous sessions than they would if the course were face-to-face.

This post welcomes comments that share strategies for addressing the challenges of each kind of online course and of correcting misguided expectations that students may have prior to the course.

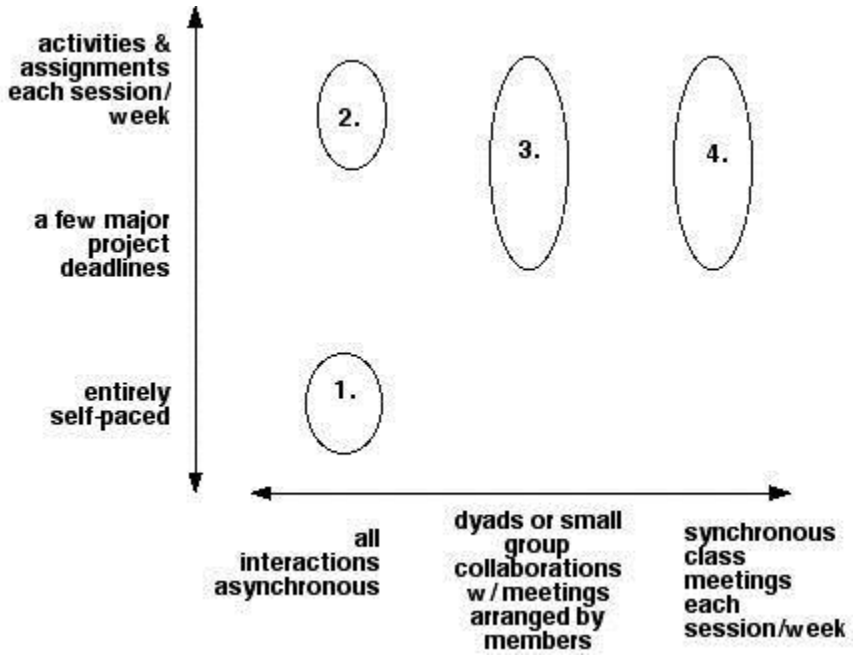
From: http://pcrcr.wordpress.com/2012/03/16/four-kinds-of-online-courses-ii/

Background: From Peter Taylor's blog (continued, follow-up post to previous one)

Four kinds of online courses II

March 16, 2012

A previous post stated the first challenge for an online college instructor is to make clear to students which kind of online course they are running. The post identified 4 kinds of online courses. This diagram arrays them across two dimensions. The gaps suggest some additional possibilities as well as provide a schema to think about varieties of face to face courses.



From: http://onlinelearninginsights.wordpress.com/2013/03/04/a-tale-of-two-moocs-coursera-divided-by-pedagogy/

Background: recent blog post by Debbie Morrison about emerging issues of pedagogy accounting for trends in online learning

A Tale of Two MOOCs @ Coursera: Divided by Pedagogy

I wrote recently about the Fundamentals of Online: Education [FOE] the Coursera course that was suspended after its first week and is now in MOOC hibernation mode. Over thirty thousands students signed up for the course hoping to learn how to develop an online course. It was a technical malfunction when students were directed to sign-up for groups through a Google Doc that shuttered the course, along with hundreds of student complaints about lack of clear instructions, and poor lecture quality. The course was suspended on February 2, and there has been no word yet as to when it will resume 😕.

On the other hand there is the e-Learning and Digital Cultures course also offered on Coursera's platform that began on the same day as FOE, yet the Digital Cultures course appears to be a smashing success if we use the engagement levels of students on social media platforms as a gauge. I enrolled in both courses, and the experience in Digital Cultures has been outstanding; the course content is challenging, thought-provoking and the instructors involvement appropriately on–the-side. Several colleagues within my network also taking the course appear to feel the same way.

The Tale of the Two
What made e-Learning and Digital Cultures successful and FOE not? There were variables common to each—the platform, the start date and length of course. The topics where somewhat similar, enough so that there was an overlap of enrolled students. However, at the root of the differences was the divergent set of beliefs in how people learn held by the instructors of each course. FOE ascribed to the learning model that most of higher education institutions follow—instructor's direct the learning, learning is linear and constructed through prescribed course content featuring the instructor. In contrast, Digital Cultures put the learner in control, with choices of how to participate, and access to open resources on the Web for content. The evaluation method for the final assessment also provided learners with options; a peer-assessed, multimedia project created on a Web application of choice, based on a theme of interest covered within the course.

How People Learn: Four Viewpoints
In this post I'll examine four orientations to learning approaches, the processes and pedagogical principles that emerge from each viewpoint. To support the overall theme of this post is a chart that compares the two courses on four factors reflective of the learning orientations: pedagogy, content, and assessment and course interactions. The table gives readers a snapshot view of how the courses created divergent learning experiences, with the aim of highlighting how the Web as a platform for open, online and even massive learning creates a different context for learning—one that requires different pedagogical methods.

Orientations of Learning: Four perspective on *how people learn* with a selection of learning theorists aligned with one of the four based upon the principles of the given theory.

Four orientations to learning; each embodies a belief of how people learn including the processes that bring about learning. Sources: Smith, M.K.(2003), Siemens, (2005) and Roblyer & Doering (2010).

Our current higher education system is grounded in behaviorist and cognitive theories. **The behavioral approach** suggests that in absence of knowing the internal processes of the learner, the focus is on the external—the behavior of the learner. The behaviorist learning model follows the pattern, A → B → C, where the environment presents the antecedent (A), that prompts a behavior (B), that is followed by a consequence (C). Characteristics of this approach include passivity of the learner, rote learning and methods of reinforcement.

The cognitive orientation goes beyond the external environment, and focuses on the internal where learning is a process managed within the learner's long and short-term memory. The instructor controls and directs learning through planned instruction, selection of content, and teaches the learner through the building of knowledge [or skills] using a hierarchical approach going from the simple to complex (Roblyer & Doering, 2010).

Constructivism and the idea of social learning, or social constructivism is an approach that gained credibility in late 1990's at which time numerous research studies suggested students learn more effectively when engaged with their world, build on what they already know, and construct knowledge as active participants. In support of the emerging research on active learning, the *National Research Council* published a volume by Bransford, Brown, and Cocking (2000) *How People Learn* that synthesized the evidence. Bransford and colleagues emphasize three conditions for effective learning: engaging prior understandings, integrating factual knowledge with conceptual frameworks, and taking active control over the learning process (Cummins, 2006).

Most Recent Learning Orientation for a Digital World: Connectivism

The three orientations mentioned, have serious shortfalls in context of our current social and digital culture. The focus has shifted to the individual, where the learner is in control. Furthermore, with access to information, social networks and tools that allow learners to consume, share and construct knowledge, the paradigm for learning has changed. In response to these changes, Siemens advanced the theory of Connectivism, which integrates principles from theories of chaos, network, complexity and self-organization all of which drive the need for a new pedagogy (Siemens, 2005).

Pedagogies Exposed
It's the learning orientations, the belief system the instructors ascribe to that determines the pedagogical methods selected for instruction. Numerous higher education institutions and its instructors have incorporated active learning methods in keeping with the social constructivist orientation, yet methods that align with the cognitive and behaviorist model such as the lecture and traditional assessment methods [i.e. multiple choice assessments] are still going strong. In the traditional classroom, these latter methods can still be effective, yet in the context of open and online learning, these pedagogies don't work, evidenced by the FOE course suspension, and the more recent situation where a professor dropped out of his own Coursera course mid-way through due to disagreements over how to best to teach the course. How people learn in the open, has changed, and institutions would benefit by adapting accordingly when offering courses in an open, online and massive format (xMOOCs).

Now that technology has allowed institutions to broadcast their courses to the world through xMOOCs, the world thus has a window into the methods and learning orientations of instructors of various institutions (granted, some views may not reflect the values of the institution represented, but the instructors'). We are able to see through this open platform the deficiencies and shortfalls of the pedagogical methods.

Two Pedagogical Methods Examined
The pedagogical methods, the content choices, the interaction methods of instructors, and the assessment methods of each course are summarized in the chart below.

Comparison of Pedagogical Methods of Two Courses on Coursera

	e-Learning and Digital Cultures, #edcmooc	Fundamentals of Online Education
Course Content	-Variety of content sources including open peer-reviewed journal articles, websites, YouTube videos, PDF files of select instructor selected articles and chapters. -No video lectures of professors or narrated slide presentations. -Two Google Hangouts with course professors, 1 hour in length, 1st and 3rd week of course [recorded] -Peer sharing of blog posts, resource discussions on Twitter, Facebook, crowd-sharing of projects,Google Do	-Lecture video of professor narrating power point slides from script -Links to non-peer reviewed articles, newsletters requiring log-in credentials, videos, (some which appeared unrelated to topic)
Pedagogy	-Student–centered, student controlled, self-directed -Inquiry based -Media production [i.e. project based learning] -Connectivist orientation	-Instructor-centered, controlled -Lecture primary source of course content -Collaborative group work [required, structured, instructor driven] -Cognitive and behaviorist orientations
Pedagogy/ Assessment Methods	-Media project reflective of course themes -Web-based, open, shareable -Peer-reviewed	- Weekly quizzes - Self-assessments on concepts disconnected from course content
Interaction/Student participation	- Community of learners on Google +, Twitter #edcmooc, Flickr and Google Docs : student created and managed	-Discussions on course forums -Groups created on forums -Google Doc managed by instructor (crashed due to overload)

Comparisons of pedagogical methods of two xMOOCs based on my experience as student with both courses [2013]. The methods for the Digital Cultures course created conditions for vibrant learning communities with high levels of student engagement.

Conclusion

The two MOOCs at Coursera discussed here are representative of the clashes between the views on how people learn. And people *do* want to learn, are motivated; are eager to take charge of their learning, make connections, expand their network and construct knowledge. The Web as a classroom creates opportunities for learning and teaching like never before. As the learner's needs change, so does the role of the instructor, and if he or she implements appropriate pedagogical methods for the learning context, both will have opportunities to expand knowledge consistent with their own learning goals and needs.

From: http://www.umb.edu/academics/caps/centers/ciee/mission_vision

Background: The CCT program's home, the College of Advancing and Professional Studies, has recently opened the "Center for Innovation and Excellence in eLearning", which has this mission:

Mission & Vision

Purpose: To promote research on eLearning involving faculty and students and focused on student-driven examination of the central technical and learning questions of our time.

Goal: To establish the findings on eLearning as a distinct body of knowledge and to serve as a connection point for critical thought in the field.

Rationale: Trends in e-Learning have gained importance and prominence within higher education, but the speed of adoption has out-stripped the pace of research on best practices in this burgeoning field.

Participation: CIEE will leverage the interests and expertise of academic and support units on and off campus to enhance current technology initiatives within UMass Boston and bring together research activities of the five campuses within the University of Massachusetts system.

Activities of the Center: CIEE initiatives will include support for basic research, the development of new design tools and products, the creation of insructional design models, and a commitment to accessibility and usability. The center will publish an online journal, maintain a public-access database, and host an annual conference to disseminate research findings.

Video recording of the December 2012 conference available here:

http://vpc1.umb.edu/CIEE_SustainabilityForum/