



# Higher education and the digital revolution: About MOOCs, SPOCs, social media, and the Cookie Monster

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**Abstract** Distance learning—that is, providing education to students who are separated by distance and in which the pedagogical material is planned and prepared by educational institutions—is a topic of regular interest in the popular and business press. In particular, MOOCs (Massive Open Online Courses), which are open-access online courses that allow for unlimited participation, as well as SPOCs (Small Private Online Courses), are said to have revolutionized universities and the corporate education landscape. In this article we provide a nuanced analysis of the phenomenon of online distance learning. We first provide an overview of its historical evolution, and subsequently define and classify key concepts. We further discuss in detail the optimal target group in terms of participating students and teaching professors and propose corresponding frameworks for driving intrinsic student motivation and for choosing a successful online teacher. We also outline the benefits that institutions can achieve by offering online distance learning. Finally, we speak about the specific connection between online distance learning and social media by focusing on the difference between MOOCs based on traditional lecture formats (xMOOCs) and connectivist cMOOCs.

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## 1. Course objective

*“Just because you haven’t found your talent yet, doesn’t mean you don’t have one.”*

— Kermit the Frog

Those of us born in the ‘70s or later share a set of childhood friends. You may not always think about them, but Kermit the Frog, Bert and Ernie, and the Cookie Monster—to name just a few of the Muppets living on Sesame Street—have shaped the lives of millions of children. They taught us how to spell (think of the ABC-DEF-GHI song), how to count (remember the frightening Count von Count), how to sing (such as the Grouch Anthem, *Grouches of the world, unite. . . or was it Users of the world, unite?*),

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and other important things in life (“Stoplights and love can be cruel”). What might be less known is that behind these entertaining lessons was a rigorous pedagogical curriculum. Sesame Street, supported by the Carnegie Corporation and Ford Foundation, was designed as a preschool educational program tailored specifically for TV, a program that would help to fight against the violent and commercial television content that was much more prevalent at the time. Looking back, we can say that it indeed achieved this goal, particularly for children living in economically disadvantaged areas (Kearney & Levine, 2015). In this sense, Elmo may have been the first teacher—other than your parents—you ever encountered.

When most of us were growing up, few people talked about the disruption of the education sector, and even those who did most likely considered the idea as hypothetical, something that might happen “in the distant future.” Yet, over the past 15 years or so, the situation has changed. Industries such as music and travel have already been fundamentally altered by the Internet. Now the emergence of online distance learning for business schools and universities at large—learning in which the pedagogical material is planned and prepared by educational institutions but students are not physically present at those institutions—seems to be doing the same to the domain of education, a process that is facilitated by firms such as Coursera and Udacity. Clayton Christensen from the Harvard Business School, who coined the term ‘disruptive innovation’ in 1995, believes that the emergence of new educational formats such as MOOCs (Massive Open Online Courses) and SPOCs (Small Private Online Courses) will fundamentally shake up business schools and other higher education institutions in the next decade and lead to bankruptcy for many of them—an assessment that has also been supported by other researchers (Liyana Gunawardena, Adams, & Williams, 2013). And, given that the influence of the higher education sector extends to numerous aspects of society and government (Pucciarelli & Kaplan, 2016), innovation in this sector is likely to indirectly affect other industries as well. In fact, new educational formats may even have a direct effect on all companies and organizations; for example, a MOOC developed by a top-tier university could easily be integrated into any in-house executive training or corporate university free of charge. The combination of cost effectiveness combined with the flexibility it gives to executives to fit training into their busy schedule—since they no longer have to attend traditional face-to-face sessions—makes it likely that more and more corporations will prefer digital over traditional solutions.

In this article we provide a more detailed analysis of online distance learning. And to stay within the spirit of the theme, our article is structured like a traditional syllabus: We start by providing a brief overview of the *course content* (i.e., the history of distance learning) before providing definitions and classifications of the key terms. We then look into the *target audience*, or the types of students for whom online distance learning might be particularly relevant, as well as the type of professors suited for developing the content for these courses. We continue by outlining the *learning goals*—key benefits that business schools and universities can achieve by developing an offering in this field—and we identify the factors to which they need to pay particular attention if they decide to do so. Our article concludes with some thoughts on the *evaluation* of the various facets of online distance learning and the specific challenges that arise when combining online distance learning with social media applications.

## 2. Course content

### 2.1. History of distance learning

The history of higher education can be traced back to ancient Greece, where Plato founded his academy roughly 2,400 years ago. At that time, however, and for the next 1,400 years or so, higher education was limited to a precious few. Only in the Middle Ages did larger scale universities begin to appear in Bologna (1088) and in Paris, where the Sorbonne was founded in 1150. However, despite the change in scale, these universities worked in nearly the same manner as the first academies did: Students met in a physical space in order to listen to a professor, who usually spent his time lecturing—that is, reading a predefined text—to transmit knowledge. Although such settings can still be observed today (just think of some of your undergraduate courses), the invention of the printing press by Gutenberg in 1439 disrupted the higher education sector for the first time by making books cheaper and more widely available. In this sense, printed books can be seen as the very first precursor of distance learning, although the earliest printed books lacked a crucial component: the involvement of a pedagogical institution in the preparation and planning of content.

In fact, the historical evolution of distance learning can be divided into three main periods corresponding to the media used: printed materials, television, and the Internet, respectively. Distance learning in its true sense first appeared in 1728 when the *Boston Gazette* featured an advertisement for a distance stenography course through weekly classes

sent by mail. This new idea was perfectly suited for a society that was in the process of being transformed by the Industrial Revolution. From that point, distance learning extended easily to other domains such as composition (offered in 1833 in Sweden), foreign languages (1856 in Germany), and the preparation of coal miners to become foremen (1890 in Canada). It also allowed education to truly abandon the concept of physical distance with the London School of Economics offering correspondence courses to students in Australia.

Since then, the concept of distance learning has not changed dramatically, although the emergence of new media has helped to make it more efficient. In 1969 the Open University was founded in the UK as the first institution that augmented correspondence learning through mail and TV, with short residential courses and supporting classes at different physical locations. This represented a milestone for the start of the second period of distance learning, characterized by the use of interactive TV instead of printed materials as a key medium. On the application deadline of August 4, 1970, the Open University received 42,000 applications for 25,000 places. *Sesame Street*, which premiered on November 10, 1969, is another example of a TV-based distance learning program, as discussed above: the show's pedagogical curriculum was designed by the Harvard professor Gerald Lesser.

The arrival of the Internet and its use for educational purposes marked the third period in the history of distance learning. Specifically, in 1989, 20 years after the premiere of *Sesame Street*, the University of Phoenix launched its online campus, which offered an entire curriculum of bachelor's and master's degrees online. The term MOOC was coined in 2008 by Dave Cormier from the University of Prince Edward Island in Canada with regard to a course called *Connectivism and Connective Knowledge*, which was followed by 25 in-house students paying a tuition fee and 2,200 non-paying external participants. This first MOOC also made ample use of several social media applications, such as blogs, forums, Facebook, *Second Life* (Kaplan & Haenlein, 2009), and Wikis (Kaplan & Haenlein, 2014). The idea then spread like wildfire so that 2012 was proclaimed "The Year of the MOOC" by the *New York Times*.

## 2.2. Definition and classification

As suggested above, for the purposes of this article and in accordance with commonly accepted conceptualizations (e.g., Keegan, 1998), we define *distance learning* as any form of providing education to students who are separated by distance

(i.e., who are not physically present in the same space) and in which the pedagogical material is planned and prepared by an educational institution. In addition to being separated by space, distance learning students can also be separated by time; that is, they may learn at their own pace, in accordance with their schedules. Such separation by time is referred to as *asynchronous* distance learning, and the alternative (simultaneous study) is referred to as *synchronous* distance learning. Distance learning can be facilitated by a wide range of media, including, but not limited to, letter correspondence, radio, TV, telephone, or the Internet. It can be enhanced by other elements, such as the existence of bidirectional communication or the requirement that students be taught individually versus in groups.

In the following we focus on two specific types of distance learning conducted online—MOOCs and SPOCs—which differ primarily in the sizes of the student populations to which they cater. A MOOC is an open-access online course (i.e., without specific participation restrictions) that allows for unlimited (massive) participation. Many MOOCs provide interactive elements to encourage interactions among students and between students and the teaching staff, although the latter is not a defining requirement. A SPOC is an online course that only offers a limited number of places and therefore requires some form of formal enrollment. SPOCs frequently have a competitive application process and might charge a tuition fee.

These definitions enable us to classify online distance learning applications according to two dimensions: the number of participants and the degree of time dependency (see Table 1). MOOCs, in addition to being unlimited in size, traditionally include students who are separated both by space and by time, enabling students to learn independently at their own pace without the requirement to stick to a specific schedule. Some massive online courses, however, require all students to be 'present' at the same time, for example, due to the use of live streaming or the requirement of group work done in real-time online. The term SMOC (Synchronous Massive Online Course) is used to refer to these courses. In a similar spirit, when referring to classes for which the number of participants is limited, we use the term SSOC (Synchronous Small Online Course) to refer to courses in which all students must participate in real time, and SPOC otherwise. The two dimensions of class size and time dependency can be complemented by other classification characteristics, such as the ability to earn credits (degree vs. non-degree awarding course) or whether attendance is free or fee-based.

Table 1. Classification of online distance learning applications

		Number of Participants		
		Unlimited	Limited	
Time Dependency	Asynchronous	Distance Learning	MOOC (Massive Open Online Course)	SPOC (Small Private Online Course)
		Traditional Learning	e.g., community college offering several time slots for the same fundamentals course, which gives quasi-asynchronous choice to a student	e.g., individual/ small-group language tutorials with a private teacher scheduled according to student availability
	Synchronous	Distance Learning	SMOC (Synchronous Massive Online Course)	SSOC (Synchronous Small Online Course)
		Traditional Learning	e.g., undergraduate lecture in amphitheater with stadium seating	e.g., PhD course on a specific method or research topic

### 3. Target audience

#### 3.1. Student population

In principle, the possibility to learn without being dependent on time and place and at nearly zero cost makes participation in a MOOC suitable for everyone, although there are some limitations in this respect (see details on this below). Whether all MOOC participants actually graduate successfully from the course is a different issue altogether. Following through on a MOOC or a SPOC requires a relatively high level of intrinsic motivation and self-discipline. Successful graduates therefore tend to be older (in the range of 25–30 years) and already hold a first degree (80%), which they obtained through more traditional means. For most participants, a MOOC is therefore primarily a way to build new skills in order to strengthen an existing professional career.

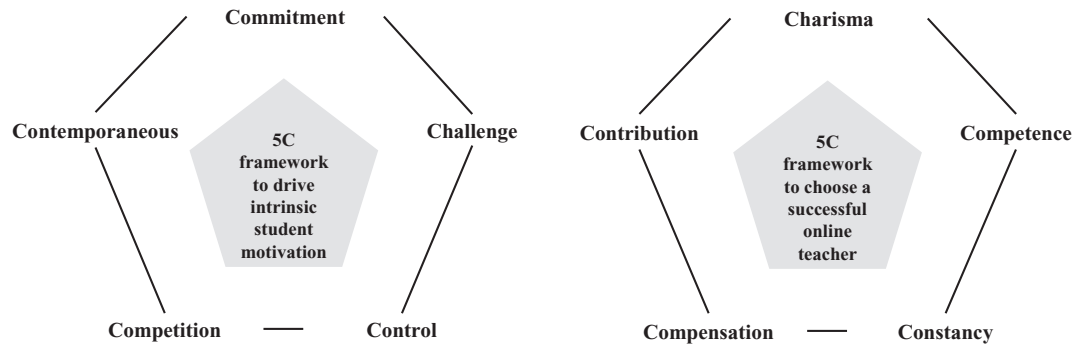
Given this observation, what can online distance learning providers do to increase the attractiveness of MOOCs for a larger population and to make them a medium that can truly educate the masses? Based on prior research in the field of intrinsic motivation and academic success (Gottfried, 1985; Rieber, 1991), we propose the following 5C framework to drive student intrinsic motivation (see Figure 1):

- **Commitment:** Make students more committed to their online education by creating the feeling of

belonging to a larger group. Achieving such commitment may be as easy as allowing participants to observe others (e.g., by displaying a list of names of students who are currently attending the MOOC). If necessary, such features can be enhanced by allowing interaction among participants, and between students and the professor, through live chats or virtual study groups.

- **Challenge:** Create a MOOC that is feasible for large numbers of people, yet is still challenging. This can be a difficult task if there are thousands of students without formal participation requirements. Adaptive learning—that is, using learning diagnostics to adjust the pace of the class for each student on an individual basis—can be helpful in this context.
- **Control:** The more control participants have over their environment, the more successful they tend to be. This is why asynchronous MOOCs that provide full control over when and where to learn tend to work better than synchronous ones. Yet providing control can take other forms as well (e.g., allowing students to personalize their own interfaces).
- **Competition:** While collaboration is good, people also love to compete against each other. So give them the chance to do so by giving out points and badges or organizing games and tournaments.

Figure 1. 5C frameworks for target audience selection



Such features allow participants to see how they are progressing toward their goals and to compare themselves with others in their peer group.

- *Contemporaneous*: Try to stay up-to-date by adapting the course to what is happening at the moment. In addition to offering pre-recorded lectures, monitor exchanges between participants to identify interesting questions and post a short video to respond—or simply post about something you read in the news yesterday that might be relevant.

### 3.2. Teaching staff

If online distance learning is not for any type of student, it is certainly not for any type of professor either. Similarly to the manner in which an increasing focus on publications has created star researchers who tend to earn higher salaries (Neely, Tribunella, Tang, & Hull, 2008) and are constantly courted by other institutions—particularly in the business school landscape—it seems likely that a stronger focus on MOOCs will produce star teachers whose brands increasingly become disconnected from those of their institutions. In some universities, such a phenomenon might lead to a more balanced view of the relative importance of teaching and research.

In principle, this trend is not new since textbooks always made some names more famous than others. But now it will be possible for students all over the world to truly experience those star teachers—and to compare them to the ones at their home institution. This can lead to a world in which each institution has some selected star faculty members who are surrounded by supplementary professors mainly serving as tutors and coaches who put the lectures into perspective.

The key question in this context is how institutions can identify those faculty members with star appeal or help the ones on the edge to make the jump into fame. For this, we mirror our 5C framework to drive

student intrinsic motivation and propose the following 5C framework to choose a successful online teacher:

- *Charisma*: To run a successful MOOC, professors should be charismatic as well as telegenic (i.e., have a good on-screen appearance). A natural means of identifying such people is to look for those who already have excellent evaluations in traditional classes. And don't forget that not every charismatic person in your faculty will actually be eager to appear online, so some convincing may be necessary.
- *Competence*: The online teachers you pick should be experts in the fields in which you would like to build brand awareness and brand equity (more details on this in the next section). While it is nice to help one of your faculty members to become a rock star, the primary objective should be to position your institution on the worldwide map in the right manner.
- *Constancy*: Focus on people who are likely to stay at your institution if their MOOCs become a success. This means that you might want to prefer tenured and more senior faculty over younger ones. Building a star takes time and money, and you should avoid investing these resources for the benefit of your competitors. And note that competitors can be numerous in this area, since not only rival universities might compete for your star professor, but also private corporations. LinkedIn, for example, recently acquired Lynda.com, an online learning provider, in the spirit of becoming a full-fledged professional development network.
- *Compensation*: A successful MOOC can be the kiss of death for a traditional course a person has been teaching for years. This makes the issue of compensation a crucial one. Focus on a combination of a one-time fee (to compensate for the effort of

building the MOOC) and some recurrent compensation every time the course runs over subsequent years. The latter should decrease over time to avoid paying forever for an online course prepared a decade ago. Depending on your national legal copyright framework, there might also be a need to pay the professor a fixed fee per participating student.

- *Contribution*: Finally, realize that your star might not want to (and should not have to) do it all alone. Add support teaching staff to the mix who can run tutorials or engage with the participants online. The fact that a MOOC is online does not eliminate the need for and the benefits of a good teaching assistant.

## 4. Learning goals

### 4.1. Benefits

There are various reasons why developing a MOOC or SPOC might make sense for a university or distance learning provider. In what follows we provide a structured overview of the key objectives and benefits that can be achieved by online distance learning. We present our framework as a Sesame Street-style ABC song.

#### 4.1.1. Ameliorate your cost/revenue ratio

While producing a MOOC is not cheap (see details on this below), it can still result in substantial cost savings—for example, for courses that are taught in several sections in parallel over the year or in different locations. The latter applies to institutions such as INSEAD, which has campuses in France, Singapore, and the United Arab Emirates, or ESCP Europe Business School, with campuses in Berlin, London, Madrid, Paris, Turin, and Warsaw. A MOOC can also help to ensure sufficient coverage rates of permanent professors (who happen to be more expensive than external lecturers) in a cost-efficient manner, which might be of importance if your business school is accredited by EQUIS or AACSB (Kaplan, 2014). Furthermore, offering a MOOC can also create potential for new revenue, for example, if you charge a tuition fee for courses that count toward a certified degree or licensing fees if other institutions use your MOOC for their own teaching.

#### 4.1.2. Build brand equity and brand awareness

Branding is important, not only when selling mobile phones and consumer goods, but also when selling education. Universities today find themselves in an

increasingly competitive environment and in a constant struggle to attract the brightest students, the best faculty members, and the most attractive endowments. A MOOC in the right area can help to put your institution on the map and differentiate it from others, similarly to a viral marketing campaign (Kaplan & Haenlein, 2011b) or an effective advertisement. This makes the choice of the topic—be it entrepreneurship, sustainable development, or cross-cultural management—highly strategic.

#### 4.1.3. Create flexibility and choice

MOOCs, especially those that are licensed from other institutions, enable your institution to offer courses and choice in areas where it might not have an appropriate level of expertise. Several institutions, such as Georgia State University, offer similar credit for courses taken online than they do for courses taken in a traditional manner. MOOCs also offer students flexibility in terms of when they can take certain prerequisite courses. ESCP Europe Business School, for example, offers online catch-up courses for students with no prior experience in business administration to prepare them for entering its Master in Management program.

#### 4.1.4. Develop pedagogical innovation

It goes without saying that online distance learning is a key step to developing more modern forms of teaching. It allows for flipped classrooms, in which the traditional knowledge dissemination step is conducted online and class time is used for discussions. The significant amount of data that can be collected from students participating in a MOOC can be used to develop a personalized adaptive learning experience, and even an entire personalized study curriculum. Anant Agarwal of *edX*, for example, thinks the standard four-year undergraduate degree could be replaced in the future by a one-year online course, followed by two further years of study on-site, and finalized by a fourth year based on blended/hybrid learning in which students combine online and physical on-site courses to allow them to work part time in a company. This curriculum is adapted to each student on the basis of data collected during the learning process in the first year.

#### 4.1.5. Extend education and democratize knowledge

An argument frequently put forward in the popular press is that MOOCs allow everyone in the world to obtain a top-tier education. While this is true in principle, there are at least two caveats to this: First, success in a MOOC requires a certain student profile, as mentioned above. Second, there is a need for a relatively sophisticated technical infrastructure,

especially high-speed Internet, which might not be available in the most remote places of the world. Online distance learning is therefore particularly attractive for countries in which there is a significant gap between the development of a technological infrastructure—be it fixed line or mobile—and the physical availability of space in educational institutions.

## 4.2. Quality assurance

While quality assurance is important for any type of teaching activity, it is even more important for a MOOC that is available on a global scale and might be joined by thousands of people. This is especially true given that MOOCs are generally a winner-takes-all market: In the end, only the best MOOC in any given subject, language, and level of difficulty is likely to survive, and will probably be adopted by everyone. This creates disproportionately high returns for offering the highest quality product. But quality assurance will have to go both ways: At some point, when online distance learning is fully established as a piece of the education landscape, it might be necessary for institutions to limit participation in their MOOCs or at least avoid giving out a diploma to anyone who passes the final exam. Universities' survival is dependent, among other factors, on the quality of their alumni, and it might not make sense to subject physical on-site students to rigorous scrutiny while providing open access to online participants. This idea is consistent with prior literature that considers MOOCs to be more compatible with non-selective post-secondary education than with highly selective higher education (Hoxby, 2014).

All these considerations raise the question of how to design the perfect MOOC that fulfills as many of the benefits as possible while at the same time having a chance of being the winner in the market. Two elements are of particular importance in this context: First, a MOOC is more than a filmed lecture. A good MOOC usually consists of several 10- to 12-minute videos filmed through different camera angles, interrupted by questions and short quizzes, which are graded automatically. Developing a MOOC is a skill similar to producing a movie, which explains in part the relatively high costs involved. Second, the distribution platform needs to be as user-friendly and intuitive as possible. It must enhance the online course and not distract the user from following the content. Thus, any gimmicks must be chosen carefully to avoid overloading the experience. And it must be scalable, of course. Otherwise, it might all come crashing down when 40,000 students try to edit your Google spreadsheet

at the same time—which is what happened to Coursera in an early version of its Fundamentals of Online Education course.

## 5. Evaluation criteria

### 5.1. Student assessment

In order to offer a truly comparable alternative to traditional education, online distance learning providers will need to deliver formal certificates or diplomas for at least some of their courses. This raises the question of how to ensure that the person who followed the course is the same as the one who took the exam. A traditional solution, used by several providers, is to conduct exams in person in a physical test center. Udacity and edX, for example, have entered a partnership with Pearson VUE, a subsidiary of Pearson Plc., that owns 4,000 test centers in 170 countries. More creative alternatives include recording examinees by webcam or using software that compares typing styles with the patterns previously recorded in the context of in-class exercises. While none of these solutions can truly rule out the risk of cheating, they can limit it to an extent comparable to that faced in traditional education.

### 5.2. Return-on-investment (ROI)

Once an online distance learning course is certified, the next hurdle is getting it recognized by external stakeholders. Some universities accept credits from externally developed MOOCs for their own degrees—as in the case of the private John F. Kennedy University in California, which accepts credits obtained through edX—allowing students to combine traditional and online distance learning. In the future such a process could be formalized, possibly through a system similar in spirit to the European Credit Transfer and Accumulation System (ECTS), which allows credits to be transferred between universities in Europe. Other online distance learning providers focus on getting validation from the job market. Coursera, for example, has its own career service that puts its brightest MOOC participants in touch with companies. In the end, even a series of successful MOOC completions is not a guarantee for a job—but the same holds true for a degree from any institution. Nevertheless, what online distance learning providers might lack in brand equity, they compensate for with the fact that their students tend to have a higher degree of self-discipline and motivation compared with those leaving the traditional system.

While numbers vary widely, the general estimate is that developing a MOOC generates costs in the range of \$30,000–\$300,000, depending on the number of people involved (teams can range from a handful to up to 30 people per MOOC), the quality of the video material, and the potential need for programming add-on content such as games or tournaments. Combine this with the significant dropout rates (only 10% of students starting a MOOC actually finish it) and online distance learning starts to look like a junk bond. But don't forget that a MOOC might be followed by 10,000 people, so 10% of them graduating—and potentially paying a fee—is still a decent number. Also, there are likely to be significant non-financial benefits (see our ABC framework of online distance learning benefits above), especially if the MOOC is in the right area and therefore helps to build brand equity and brand awareness. While it may be difficult to accurately determine the ROI of a MOOC, it is likely to be a much better investment than one might initially think.

## 6. Digital and social media use policy

While online distance learning has already obtained an established place in the education landscape, it is likely that the importance of MOOCs and SPOCs will increase even further in the future. The next generation of students who are knocking at your door are digital natives, bringing with them a unique set of opportunities and challenges (Pucciarelli & Kaplan, 2016): Not only are these future students more comfortable substituting a MOOC for a traditional face-to-face lecture, but they also expect

social media applications and user-generated content in general to be integrated into offline classes as well. Microblogging applications such as Twitter (Kaplan & Haenlein, 2011a), for example, are already used to extend discussions beyond the classroom and to allow students to exchange or tweet their reactions to reading assignments. It is still largely unclear how the process of opening up course content to the public sphere is expected to influence academic freedom, privacy laws, and intellectual property rights.

Interestingly, a stronger focus on social media applications is also expected to impact the design of MOOCs in the future. The vast majority of today's MOOCs are structured as weekly sequences of activities in which instruction is provided by videos or filmed lectures, supported by supplementary readings and assignments. Even MOOCs that are asynchronous are usually cohort-based in the sense that they are offered over a fixed period of time (6–10 weeks on average) in which each participant is expected to complete activities within a certain time window. MOOCs based on traditional lecture formats are commonly referred to as 'xMOOCs'—a term inspired by Harvard University, which used the prefix 'x' to indicate (offline) courses in the university's course catalogue for which online versions were available. Some xMOOCs have online discussion forums that allow participants to engage with one another, but, as mentioned above, such interactions are not essential or integral to the course.

Combining MOOCs with social media platforms, which facilitate the creation and exchange of user-generated content (Kaplan, 2012; Kaplan & Haenlein, 2010), will lead to the emergence of

Table 2. Comparison of xMOOCs and cMOOCs along 5Ps

	xMOOC	cMOOC
Professor	<i>Instructor, who designs a standardized course for everyone</i>	<i>Facilitator, who animates an individual learning process</i>
Participants	<i>Passive learners</i>	<i>Active contributors</i>
Pedagogy	<i>Predetermined content, based on a formal curriculum, using lecture style and (peer) evaluations</i>	<i>Collaboratively developed content without a formal curriculum, in seminar style without evaluations</i>
Pattern	<i>Structured with regular sessions over a fixed time period</i>	<i>Unstructured based on continuous learning</i>
Platform	<i>Centralization of content in one place</i>	<i>Decentralization of content across the network</i>



connectivist MOOCs, referred to as ‘cMOOCs.’ Social media applications constitute a central part of the cMOOC since they allow participants to create pedagogical materials—via blog entries, tweets, podcasts, and the like—that can subsequently be commented on and further enhanced by other participants. Instead of providing a formal curriculum, cMOOCs offer a set of course materials that each student can use, repurpose, and extend as necessary. This strong focus on collaboration and cooperation among students represents a fundamentally different teaching philosophy from the one underlying the xMOOC. In a cMOOC environment, the professor no longer fulfills the key function of transmitting knowledge; instead, she focuses on facilitating interactions. Table 2 provides a comparison between these two types of MOOCs.

## 7. Concluding information

*“Me do anything for cookie – Cowabunga!”*

– The Cookie Monster

Now, coming back to our initial question, what does all of this mean for the future of the education industry in general and business education in particular? Look at the webpage “No-Pay MBA” to get some idea. This site offers the possibility to combine MOOCs offered by top business schools such as Harvard, Yale, MIT, and Wharton into a curriculum equivalent to that of a full-time MBA program, for less than \$1,000. A full program consists of 14 core courses, 3 electives, and 4 concentration electives. A student can begin the program at any time (admissions are on a monthly basis) and complete it within 18–24 months. In addition, members of No-Pay MBA take courses together and work in small groups on projects to replicate the feeling of belonging to one cohort of MBA students. They have video conferences among themselves and video meetings with professors. Although the MBA is not accredited (yet), the offer sounds rather convincing.

Offers such as this have the potential to shake up the education industry as well as in-house training for employees and executives in the corporate environment. In this sense it seems as though, as mentioned in the beginning, some of the 13,000 business schools in the world will need to close down in the coming years. The schools particularly at risk are the ones that are already not well-ranked and the ones with low brand equity. Other schools might decide to become more specialized. Even today, top law students aim for Harvard, future investment

bankers target Wharton, and students interested in cross-cultural management opt for ESCP Europe Business School. This trend of specialization will most likely become increasingly prominent in the future.

So does this mean that traditional business schools and universities as we know them today should be considered as the dinosaurs of the education area that will die out soon? Probably not. Look at the music industry, for example. Although mp3s have largely replaced the traditional CD, live concerts are still important, potentially even more than they used to be. Watching a star such as Britney Spears (Kaplan & Haenlein, 2012) live on stage will always be better than seeing her on YouTube—and the same will be true for online distance learning. But other issues that the music and film industries have to deal with on a daily basis—file sharing, illegal downloading, and users not paying licensing fees—will probably also apply to the education sector in the future and create a whole new set of challenges.

In the end, education is only one reason why students decide to attend a university. Other reasons include socializing (think of the things that you did in your freshman year, and spent your subsequent years trying to forget), gaining life experiences, and building a professional network. These functions are unlikely to be taken over by online distance learning providers. The same applies to all those past students who met their future spouses while sitting in a boring lecture next to them. As always in life, just listen carefully to what the Cookie Monster has to say: *“Sometimes me think what is love, and then me think love is what last cookie is for. Me give up the last cookie for you.”* Sharing cookies online is just not the same as sharing cookies in real life.

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