

CENTRALIZED, DECENTRALIZED, DISTRIBUTED:  
DISRUPTIVE TECHNOLOGY IN MUSEUM EDUCATION

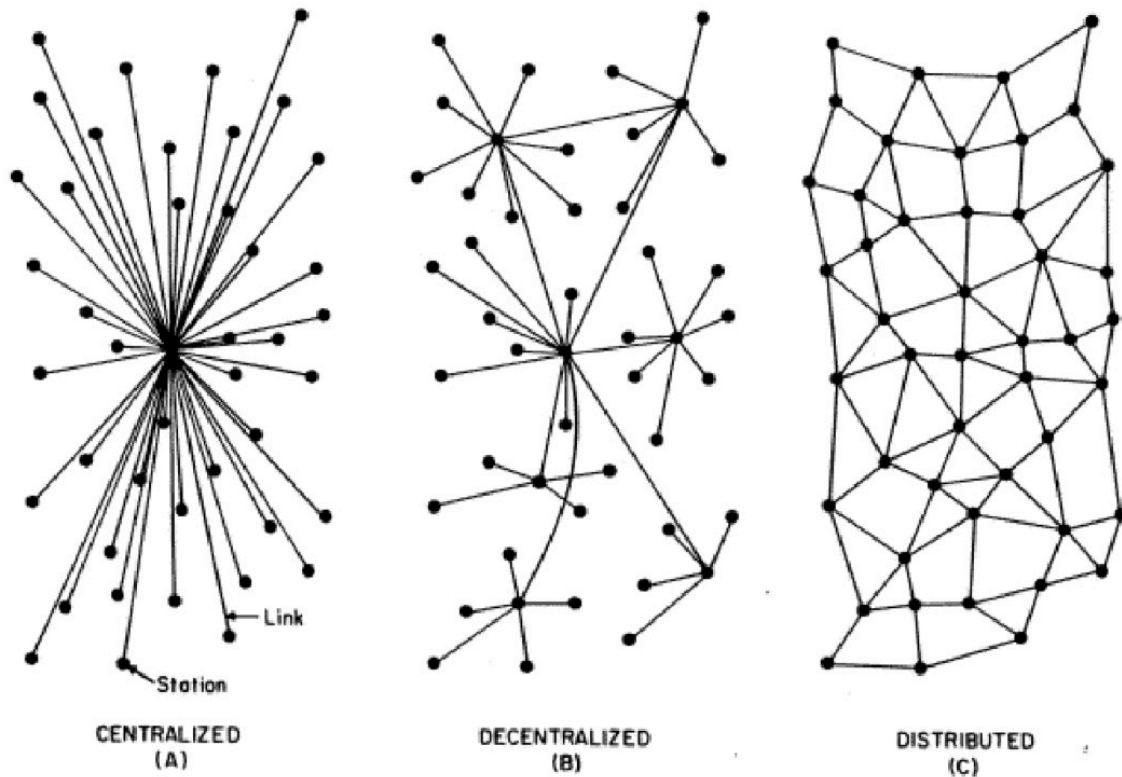
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ABSTRACT:

Lessons from early academic television courses from the 1950s guide an assessment of current disruptive technologies currently shaping massive open online courses (MOOCs) and other informal online learning opportunities in museums today. This paper explores some of the unique contributing factors that led to the creation of a popular television show called *Sunrise Semester* (1957-1982), which aired for nearly twenty-five years and was offered by New York University for college credit. Despite that the show aired at dawn and rarely included one-on-one interactions with professors, the show attracted a devoted viewership of over two million viewers at its peak. For current day museum professionals looking to utilize MOOCs as an outreach or educational strategy, innovations from the “golden age” of television offer crucial lessons in how to attract and maintain diverse audiences.

*Keywords:* museums, online learning, MOOCs, *Sunrise Semester*



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Elizabeth Merritt, founding director of the Alliance's Center for the Future of Museums, shared some thoughts regarding the future of education with attendees at the 2013 Museums Advocacy Day on February 26, 2013 in Washington, D.C.. She and others (Goyal 2013) suggested that the American educational system is on the cusp of transformative change: if our last era was based on a “factory” model of education designed to build a workforce prepared for the 20th century economy, what questions should we ask next about the future of education in the 21<sup>st</sup> century? The forces that shaped a faded era of factory-learning are now fading away and new drivers of change are pushing us in a different direction. What might the new era of education look like? What could this mean on a global scale? How are some of the implications and impacts of online

learning also destabilizing previous assumptions about university degrees, and what are new and emergent opportunities for museums and museum learning?

*Centralized, Decentralized, Distributed: Disruptive Technology in Museum Education* posits that museums will be critical content providers in the development of MOOCs and other alternative online learning environments. The terms “centralized,” “decentralized,” and “distributed” parallels a pendulum shift from the beginnings of education in the United States between a bureaucratic model that places power in the hands of government versus a community-driven organizational model that places power in the hands of individuals. Distribution of power and distribution of knowledge will soon be the only currency that matters in the landscape of education.

A recent report provided by KnowledgeWorks called *2020 Forecast: Creating the Future of Learning* (2011) posited that over the next decade “the most vibrant innovations in education are likely to take place outside traditional institutions,” and “many of our fundamental relationships--with ourselves; within our organizations; and with systems, societies, and economies--are being re-imagined and re-created in ways that will disrupt the status-quo and challenge our usual assumptions.” Citing KnowledgeWorks’ report, Elizabeth Merritt from *The Center of the Futures of Museums* cited this report in her assertion that “museums are already pre-adapted to be major players in the next era of education” (Levitt, 2011). Meanwhile, participation in massive open online courses, or ‘MOOCs’ are growing exponentially: as of this year, more than six million students worldwide have registered for classes in topics ranging from physics to history to aboriginal worldviews<sup>1</sup>.

Massive open online courses have seemingly generated a considerable amount of press coverage since the term was first used in 2008. While MOOCs have been around for a while, the new level of attention may have altered higher education leader’s perceptions and plans for MOOCs and other online offerings. Distributed models for online learning form the basis of MOOCs and other systems of learning today are being posited directly as an alternative to mainstream public education. What education barriers exist for individuals interested in participating in free online

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<sup>1</sup> A. J. Jacobs, frequent contributor to The New York Times.

courses offered by museums and cultural organizations? What motivates individuals to seek online opportunities to teach about art and the humanities as “stand-alone” subjects?

Although the term MOOC was first coined in 2008, the only aspect of MOOCs that seems to be untried and untested is that the content delivery just happens to be online. Universities and other systems of formalized education have already asserted the value of distributed online learning in science, mathematics and engineering; examples include the partnership between MIT and Harvard called edX.<sup>2</sup> Likewise, museum educators are at a critical juncture to embrace an ambitious variant of MOOCs that focuses on arts and the humanities such as Kahn Academy.<sup>3</sup>

So while MOOCs themselves are new, the concept of distributed learning is not. Some of the earliest correspondence courses boasting significant enrollment numbers pre-date MOOCs by over 100 years. The practice of utilizing massive, open enrollment courses through correspondence and distance learning dates back to the 1880s<sup>4</sup> and the International Correspondence School (ICS), founded in 1896, boasted enrollment in the hundreds of thousands. The ICS first enrolled approximately 2,500 new students in its first year, attracted over 72,000 new students in the year 1897, and estimated for total enrollments in ICS by the year 1906 reached over 900,000 students (Clark, 1936; Noble, 2002). Most of these students were adult learners seeking certification and vocational training.<sup>5</sup> But one of the most radical experiments in distance learning was an experimental television series offered for college credit by an urban university in the late 1950s. More than 700 students applied to participate, and some 120,000 others followed the course--without credit--on television. The series heralded the era of distance learning, solidified a creative partnership between CBS and NYU, and pioneered the power of television as a medium to educate.

#### A RADICAL EXPERIMENT IN EARLY TELEVISION: *SUNRISE SEMESTER*

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<sup>2</sup> One such example of distributed online learning is a current partnership between MIT and Harvard called edX.

<sup>3</sup> [www.khanacademy.org](http://www.khanacademy.org)

<sup>4</sup> The International Correspondence School founded in 1890 by Thomas J. Foster provided continuing education for miners and draftsmen. Source: Clark, J.J. (1906). The Correspondence School-Its Relation to Technical Education and Some of Its Results, Science Magazine. pp. 327-334.

<sup>5</sup> Ibid.

*Sunrise Semester* was an American television series co-produced with New York University (NYU) and aired on (CBS) from 1957 through 1982, offered for college credit at a rate of \$75 per semester. The courses were initially carried on WCBS-TV (now known as “CBS”) network in the greater New York metropolitan area five days a week, Mondays through Fridays, and were later carried by local networks and university campuses across the nation by the late 1960s. The show was so-named because it aired daily between the morning hours of 6:30am and 7:00am.

The first courses offered by New York University in 1957 were not physics or mathematics, but “Comparative Literature 10: *Modern Fiction from Stendhal to Hemingway*,” followed by “Comparative Literature 20: *Contemporary Realism to Existentialism*” added in spring 1958. “Comp Lit 10” included close readings of novels by Charles Dickens, Mark Twain, James Joyce and Marcel Proust, while “Comparative Literature 20” included texts by Edith Wharton, John Steinbeck, and F. Scott Fitzgerald<sup>6</sup>. Both courses were offered as 76 individual broadcast lectures lasting 30 minutes each, and were taught by Dr. Floyd Zulli, a relatively-unknown assistant professor of Romance Languages at University College in fall 1957, fall 1958 and spring 1959.

The announcement that WCBS-TV and NYU planned to air a straight college course for credit, five days a week, at the “dubious” hour of 6:30am was unanimously ridiculed in the press. It was suggested that NYU’s proposed delivery of “seventy-five dollars’ worth of education over the air, with no opportunity for contact between teacher and students, was a fraud.”<sup>7</sup> No one could predict viewer reaction for a television show offered for college credit back then. The first book on the reading syllabus, Stendahl’s *The Red and the Black*, caused almost every bookstore within a 30 mile radius around New York City to sell out of the publication in every bookstore. In 1959, the Associated Press quoted a well-known advertising executive to describe the course as “the most exciting, off-beat thing that’s ever happened to New York TV.”<sup>8</sup> In its first year of broadcast, over 10,732 were inquiries received and more than 700 applications were pending for degree credit offered by New York University. In the first semester of fall 1957, 177 students enrolled for the credit-bearing course<sup>9</sup>, and 132 students travelled to New York University’s

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<sup>6</sup> Source: course brochures from New York University archives 1958-1959 Guide to the Office of the Dean of Washington Square Campus 1929-1984, Record Group 19, Series I, Box Number 12, folder 7.

<sup>7</sup> Murphey, S. & Wright, S. (1958, April 5). How to Get Smart Before Breakfast. *Saturday Evening Post*. p 25.

<sup>8</sup> Television Literature Course Attracts Wide Public Interest, u.d.

<sup>9</sup> Murphey, S. & Wright, S. (1958).

campus to complete the final examination.<sup>10</sup> By 1958, Dr. Zulli was awarded four Emmy nominations for his dawn television appearances.

Institutional pressure to monetize the course did not seem to dissuade viewers looking to earn college credit. The price for three points of university credit was \$75<sup>11</sup> and included a nonrefundable application fee, registration, materials and examination fees, which roughly had the same buying power as \$600 today<sup>12</sup>. Viewers not wishing to receive degree credit could receive a “certificate of completion” for \$35<sup>13</sup>. Course requirements for full college credit included one term paper, two “mailed-at-home” examinations, and a final written examination administered on New York University’s campus “with special arrangements made for physically handicapped students.<sup>14</sup>”

By 1958, and despite the early broadcast hour, survey estimates ranged in estimates that between 62,000 families and over 120,000 viewers total tuned in daily during the first semester. Enthusiastic at-home viewers outnumbered the students taking the television course for college credit by nearly 700 to 1. By 1959, a discussion meeting organized on Washington Square campus brought viewers together in person, and students were offered opportunities for private consultation with course professors by telephone or in person.<sup>15</sup> Letters from viewers indicated that even a number of high school students had become “early risers” as a result of a “commendable desire to get a foretaste of college instruction.<sup>16</sup>” Journalistic speculation estimated that the range of individuals tuning into the course in 1958 included “working men and women, housewives young and middle aged, grandmothers, high-school seniors, elderly couples and whole families watched as regularly and as conscientiously as the registered students: “Motivated by no prospect of gain except a better understanding of sixteen classic novels and the

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<sup>10</sup> Source: archived course brochures from New York University archives 1958-1964 Guide to the Office of the Dean of Washington Square Campus 1929-1984, Record Group 19, Series I, Box Number 12, folder 8.

<sup>11</sup> It is unclear how this price per credit compared with tuition for fully matriculated, on-campus students, but on Sept. 17, 1967, The New York Times reported that New York University’s annual tuition topped \$2,000 for the first time in school history.

Source: <http://nyunews.com/2012/11/13/tuition>

<sup>12</sup> Source: <http://data.bls.gov/cgi-bin/cpicalc.pl>

<sup>13</sup> Source: archived news clippings and course brochures from New York University archives 1958-1964 Guide to the Office of the Dean of Washington Square Campus 1929-1984, RG19, SI, #12-13.

<sup>14</sup> Ibid.

<sup>15</sup> Source: Headline from New York University Newsletter, fall 1958: Four “Sunrise Semesters” given this year, degree through television in future., p 1.

<sup>16</sup> Ibid, p.1-3.

pleasure of meeting a perceptive mind, they had nothing to lose but sleep.<sup>17</sup>

Although no formal headcount of *Sunrise Semester's* audience viewership was ever conducted, CBS executives and New York University officials estimated that roughly two million people watched daily. By 1973, between 85 and 90 local stations broadcast the show nationally all over the United States and Canada. In an early draft of a grant proposal to the National Endowment for the Humanities during the show's sixteenth anniversary, New York University officials attempted to make educated guesses about the "mix" of viewership audiences and their diversity:

SUNRISE SEMESTER reaches... countless people in all walks of life: businessmen who want intellectual stimulation, school teachers who regard SUNRISE SEMESTER as providing refresher courses and refreshment of the intellect, housewives who sometimes organize groups to discuss the morning's lecture, people in isolated areas, men shaving, women preparing breakfast, people drinking coffee or [farmers] milking cows, viewers lying in bed but awake. We have had correspondence from, among many others, a bank president, an executive vice president of one of the nation's largest stores, a vegetable store-owner, numerous professional people.

*Sunrise Semester* was a radical experiment in early television, and there were very few ways to know who was included and excluded within such a devoted audience. Unsurprisingly, ways to measure teaching efficacy through the medium of television was also difficult to extract, especially as the mode of delivery was so new. In an early article from *The Gazette*, some important research questions raised by journalists surfaced as early as 1959:

The value of a course should be gauged by its effectiveness, and while that is not easy to determine, the attempt should be made. Various research questions were raised in the television show's first year: what degree of understanding and appreciation was shown by the students in their examination papers? Did the examination papers show wide difference among the students in what they apparently got out of the course? If so, did age, or educational background, or occupation, or the degree of 'household distraction' have considerable bearing on whether the student derived little or much from the course? How many of them would have derived more benefit from being face to face with [the professor] in a lecture room? Was concentration an important factor, and if so, were some of them better able to concentrate in front of their TV sets than they would have been in a classroom?

Each of the questions criticisms and questions above could easily be applied to present-day MOOCs. Assessment of student performance, and wild guesses about the age or gender of

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<sup>17</sup> Murphey, S. & Wright, S. (1958, April 5). How to Get Smart Before Breakfast. *Saturday Evening Post*. p 25, 99.



participants are still nearly impossible to answer with certitude when looking at any number of the estimated six million participants in MOOCs in 2013. The level of household distractions – or even who lived in said “actual” households – remains a mystery even today. Whether participants in today’s MOOCs could learn more effectively, or “derive more benefit” in a classroom versus online and in front of a computer is nearly impossible to answer, chiefly due to too many inter-dependent variables on how people learn in various educational settings, and at various stages of their lives. It is possible that we know only slightly more about the six million registered MOOC participants now than we knew about those two million viewers in the earliest days of 1950s television.

The hurdles, barriers and issues of accountability and credibility have been part of important discussions around formal and informal learning in education since the 1950s, and arguably even earlier. “Education” in this context is meant to refer to non-classroom, informal learning. While some of the subjects and learning described here may have strong roots in discrete, traditionally-bound academic disciplines, the crux of alternative online education described here is that it must be free and accessible to everyone. *Sunrise Semester* was one of the first examples of a massively-enrolled open course, and could be considered a proto-typical MOOC in its struggle to bring intimacy in learning through the distributed medium of television. But a pressure to monetize could have been one of its downfalls.

Museum professionals have begun to outline potential scenarios of an alternative educational future by looking at forces, trends and events that will shape our path forward. Trends include rising dissatisfaction with performance of primary and secondary schools, charter schools, homeschooling, de-schooling, rising cost of higher education attributed to escalating debt, low rates of post-graduation employment, burgeoning online educational content, and MOOCs (Merritt 2013). And yet, some of the earliest concepts in online learning surfaced in the 1950s with the rise of early television. Partnering with universities, and often with the inclusion of correspondence coursework and in-person written exams, allowed participants to earn college credit.

As *Sunrise Semester* was an American television series that originally aired on CBS from 1957 through 1982, very little data now exists in the public sphere. Fan mail collected from participants in the 1950s, 1960s only hints at anecdotal evidence about the impact of the show on individual learning. One goal in comparing and contrasting data sets from early educational television in the 1950s and MOOCs in 2013 includes a way to summarize the “types” of subject areas addressed in both learning environments to surface new ideas for museum innovation. Much has been made to track some of the earliest courses offered on CBS, but CBS erased tapes of *Sunrise Semester* before 1968 immediately following each broadcast.<sup>18</sup> Similarly, very few accounts of present-day MOOC participants are easily accessible to researchers or educators now.

In an examination of its early success as an informal learning space and home viewership, its success can be measured by its devoted fan base, and evidenced by piles of fan mail – but its success remains anecdotal. Today’s educators in museums could also learn from some of its early failures. As lecturers presented on a wide range of academic subjects via television broadcast five times a week at 6:30am successfully for over twenty-five years, and yet still could not raise sufficient funds after unparalleled success in the minds of its viewership.<sup>19</sup>

The *Sunrise Semester* show ran on the CBS schedule for almost 25 years, but by the early 1980s, declining ratings and lack of funding from outside sources<sup>20</sup> almost certainly caused cancellation of the show. The rise of public television in the United States, which had evolved from the same educational broadcasting movement that first gave birth to *Sunrise Semester* in the 1950s, further contributed to the program’s demise. Even as college campuses nationally began to explore possibilities to monetize online learning in the 1980s, the fact remained that education simply could not compete with entertainment television, and soon *Sunrise Semester* was replaced by morning talk shows and other lighter fare. Educational television also became synonymous with children’s television. Beyond one preliminary study of the show’s viewership in 1959, a handful of passionate anecdotal stories and piles of fan mail stored in New York University’s archives are all that remains of a traced history of *Sunrise Semester*’s short-term impact on its viewers.

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<sup>18</sup> Archived correspondence between fan and CBS executive, circa 1971, courtesy New York University Archives of Washington Square Campus, 1958-1082.

<sup>19</sup> Source: <https://www.facebook.com/pages/Sunrise-Semester/106061759425976#>

<sup>20</sup> Ongoing correspondence between CBS executives and NYU dean’s office circa 1969-1975, New York University Archives.

The long-term impact of *Sunrise Semester* and television shows like it remain equally unmeasured. Recent comments were posted in June 2011 on a YouTube video recording of a 1959 episode of *Sunrise Semester*<sup>21</sup> echoes some of the passionate fan mail received by New York University from the 1950s and 1960s. In response to the YouTube posting of the rare episode online, s/he writes:

Distance learning in the 50s! I used to watch this all the time when I was about four. I was planning on going to university (there was a university nearby with a great radio station I used to listen to all the time -- that's what gave me the idea) and thought I should get a head start. This show gave the basics of things like philosophy, biology, foreign languages, and math, explained so simply I could understand a lot of it even at that age. I hope you can upload more episodes.

There is no way to calculate how old this YouTube user may have been when s/he first saw *Sunrise Semester* at aged four, nor guess how old s/he could be now. And yet such a vivid recollection today warrants careful consideration: would anyone recall participation in a MOOC with such passion fifty years from now? And if not, what can museums do to fortify and expand online learning opportunities in MOOCs?

We can only hope that the power of free networks will soon close the education gap through innovative education within online museum spaces, and museum professionals are uniquely positioned to lead this change. Museum professionals often care passionately about good, rich content and meaningful and impactful connections with their collections.

How we chose to measure “success” for online learning in MOOCs, or anywhere else for that matter, remains to be the question of the day. If pressures to monetize *Sunrise Semester* played a part in its ultimate downfall, institutional pressures for museums to monetize their courses could also shape their demise. It is unclear just how many households today are equipped on a global scale to participate in online courses such as MOOCs, and high drop-out rates may be part of an institutional rationale to dismiss the power of MOOCs altogether as a long-term strategy for university growth.

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<sup>21</sup> Ira H. Gallen Video Resources was responsible for posting an original 1959 episode of *Sunrise Semester* on YouTube, and I am grateful to him for making this clip publically accessible.

In the 1950s, few techniques for gathering participatory data existed, and it is no wonder that little scholarship on early, university-based educational television shows aimed at predominantly adult audiences was ever published after the 1970s. Today, we have the capabilities to collect large data sets on any number of the estimated six million people currently enrolled in MOOCs. Just exactly who owns that data, and especially who owns private data on individuals such as age, race, gender and socio-economic background. It will likely not fall into the hands of educators or museum professionals easily, but certainly could fall into the hands of marketers and privatized corporations eager to monetize and capitalize still-early online learning opportunities like MOOCs. It will be up to savvy educators and museum professionals to protect against efforts of blatant monetization by private corporations in favor of rich, memorable and accessible content.

Museum professionals are not exempt by institutional pressures to monetize, but they hold a unique opportunity to hold articulate why rich, memorable content must shape the future of informal learning in large, open networks. Few other civic entities are able to offer the same potential for extensive diversity, connectivity and sharing opportunities as museum spaces. Early educational television learning marked a precursor to online education, and new possibilities for teaching in the humanities, art, culture, sociology, history and society. Museums are critical content providers in the development of MOOCs and other alternative online learning environments. Centralized systems of learning in the 1950s gave way to decentralized models when power shifted to communities of learners. In a distributed learning model, the responsibility is on everyone, equally, for participation, access and accountability in education. As museum professionals, our responsibility is not only towards the nodes in the network, but the network itself.

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