Disrupt This! MOOCs and the promise of technology Karen J. Head

This is a gripping book about how a MOOC was put together at the University of Georgia. It was a quite specific instance. One course – freshman composition. A set of constraints that is typical of a college campus today, with myriad administrators overlooking the process.

As such, it is as much indicative of how universities operate today as it is of the potential of MOOC education. This view from the inside will be extremely valuable to other people putting together massive online open courses. It is also a rather sobering look at the limits to the extent to which it can be done within the context of an existing University. If the technology is to be truly disruptive, it may be that it has to originate from outside anything that looks like a modern university. It could be something like the Khan Academy courses for high school kids. They sprouted up totally outside of the educational establishment.

I am giving this book a very thorough read and writing chapter summaries. Most people who read reviews don't want that much material. Therefore I am posting here just the first couple of chapters. It is without doubt a five-star book. It is an intelligent take on a very a significant topic. Other chapters are summarized in my comments.

PROLOGUE How Did a Nice Girl Like You Wind Up Here?

The author describes how she got pulled into the MOOC business at the Georgia Institute of technology. Georgia, like a great many universities at the time (2012) was expecting online education to be the next big thing. Karen Head was a young instructor who was pushed into being a pioneer in the program rather against her will.

Ultimately, it was her husband's observation that if she wanted her opinion to matter, she needed to accept the challenge. If she did not, it would be picked up by a true believer and the University would be steamrolled by the MOOC movement. Head was in a position to at least make sure that the program received a balanced assessment.

ONE The Rhetoric of Punditry

The MOOC concept was obviously on a roll in 2012. Head begins with quotes from a number of illuminati I and visionaries with regard to its tremendous promise. Rafael Reif, president of MIT, said "there is a new world unfolding, and everyone will have to adapt." All such pronouncements were issued in the context of revolutionary language, talking about disruption and even a natural disaster.

Georgia Institute of Technology joined in supporting the Coursera platform. MOOC was ultimately seen as a cost-saving device. University education is getting increasingly expensive. Head writes:

"As tuition costs increase and state university boards demand grand educational technology schemes that demonstrate a commitment to open access, more universities find themselves needing to provide more for less (at least in appearance). Most people understand that lowering costs is a goal of university boards, especially those which must answer to state legislative bodies. But more of what? More lectures? More lab time? More conferences with faculty? More academic support? More opportunities to engage with other students? More extracurricular programs and facilities? The college experience transcends what happens in the classroom in many ways. Everyone involved in the conversations about improving higher education will first need to agree on what our common goals, explicitly defined, will be."

Head addresses the "free first year" of college to be completed via MOOC's. Credit would be awarded on the basis of Advanced Placement Exams or College Level Placement Exams, vehicles already in place to allow entering freshmen to take credit for advance work they did in high school.

This reviewer notes that the shorthand for these is CLEP. There is a similar set of tests called DSST that originated within the United States military for granting credit to members of the armed services and has now been extended to the civilian community.

Head sets forth the premise of this book: "Many of the discussions about MOOCs tend to take a "for" or "against" stance: FOR: Scale, Democratization, Technology Imperatives; AGAINST: Impersonal Approach, Unsuitability for Humanities. Such dichotomous reasoning is fueled by appeals to the concept of disruptive innovation. Disruption is so clear and sudden when compared with reform that it is no surprise that pundits arguing for disruptive change in higher education have been happy to polarize discussions and to portray caution as opposition or any skepticism about technological determinism as Luddite foot-dragging. My goal in this book is to inject some proportionality into the claims in favor of MOOCs."

The target MOOC in which Head participated was funded by the Bill and Melinda Gates foundation. It was a first year writing program frequently called "freshman composition." Back in the dinosaur days when I attended Berkeley it was called "Subject A." The premise is that the ability to write is a prerequisite for university work.

Upon reading this, I noted that it did not seem like the most promising vehicle for getting started. The students who take freshman composition are not the most motivated. Moreover, there is a lot of subjectivity in written composition. My first take would be that if this MOOC succeeded, it would indicate that the MOOC concept would work almost any place. On the other hand, failure or qualified success would not discourage me from trying elsewhere. It turns out lin later chaptes that Head agrees pretty much.

Head makes the obvious point that "I want to see us shift to arguments about strengthening our practices—that is, we should first use technology to enhance what already works well in classrooms, rather than resort to an approach that 'throws away the baby with the bathwater,' which would only create a new set of problems."

Online writing labs (OWLS) have a long history on campus. But they rely on one-on-one tutoring in addition to online access to reading materials.

Head notes that traditional universities such as Georgia Institute of Technology teach cohorts of students who are selected for their academic promise and have the benefit of being located on campus. MOOC's are intended for diverse populations of students who cannot be assumed to share those advantages.

One of the shortcomings of the MOOC concept is that it continues to rely on a lecture format. Head quotes Eric Mazur, a Harvard physicist, who has been maintaining for years that lecturing is simply "outmoded, outdated, and inefficient." MOOC's had the ability to change things – why keep this relic?

Head describes two influential books published in 2011: [[ASIN:1118063481 The Innovative University: Changing the DNA of Higher Education from the Inside Out]], by Clayton Christensen and Henry Eyring, and [[ASIN:0262015803 Abelard to Apple: The Fate of American Colleges and Universities]], by Richard DeMillo. despite the fact that she takes significant exception to a large amount of the material in both, she refers to them throughout this book.

Interestingly, she goes back to the ancient Greek rhetorical concepts of ethos, pathos and logos. Ethos is the question of establishing your authority, leading your audience to accept that you know what you're talking about. Pathos is the issue of appealing to their sentiment. Lastly, logos is the question of convincing them by sound argument. She goes on at length about how these two advocates of MOOC's use rhetorical devices to drag their readers in and get them to overlook significant reasons why what worked in a couple of instances might not work more generally. This is, of course, the classic problem of educational innovations in all times and places. Inspired teachers with the right tools can do wonders with children. But most educational innovations – I call them fads

 cannot be generalized. Among the fads of our lifetime include whole language, new math and group learning, just to name three. Diane Ravitch catalogs them very well in [[ASIN:0684844176 Left Back: A Century of Failed School Reforms]].

TWO My Educational Journey: A Brief Interlude

Head gives her own background. She came from a working-class family, married and divorced early, joined the Army, and didn't become a college freshman until she was 27. She showed grit and intelligence and got pulled into academic work. She has been teaching college composition courses since 2001, primarily to STEM majors at Georgia Tech

She writes about how this program came together, with grant money from the Bill and Melinda Gates foundation. There were so many hands involved in the management, and so many interests to serve, that there was very little money to go around. She got none of it, and the others who should've gotten a richer share wound up with only a couple thousand apiece. More significant, they wound up having relatively little creative control over the course they put together to teach freshman composition.

Head submitted a few articles for publication describing the process of getting the course developed. There were many constituencies to be pleased, and many noses that might get out of joint, but she seemed to pull it off.

Head writes that teaching composition means listening. What she means is listening to the students – and of course reading with an open mind. The way they taught this course, the students did not have to do any research. They could write on the basis of their own experience. There were three major compliments of the course: writing, visual analysis and/or creation, and oral presentation.

Head could not meet any of the students – there were 22,000 of them. The entire course had to be prerecorded on video. Students had to manage their own learning. Head and her team had to monitor discussion boards for the course over the whole eight weeks that it ran. Once a week they did meet with a small group of students in online Google Hangout forum. That was as close as it came to duplicating the interaction that goes on in a live classroom.

Most significantly (it comes out in a later chapter), this was a non-credit course. The students were expected to learn, but were not graded and did not receive credit.

THREE Sweet Disruption

Referring to Christiansen's book, above, she goes back to his original arguments in the two decade old "innovator's dilemma." There are great many interests invested in the status quo, making it difficult for an innovative approach to catch hold.

MOOC has been here hailed as the most revolutionary thing to happen to education since Gutenberg gave us the printing press. DeMillo echoes Christiansen in his "Abelard to Apple." He says that universities need to adapt corporate models and approaches to remain viable. Head says the books abound in words like "crisis," "financial meltdown,", "urgent,", "entrenched," and "danger." She says it Christiansen and DeMillo are excessively dramatic.

As a reviewer, I note that Head does not address other systematic shortcomings in American and European higher education. These are pointed out by Richard Arum in <u>Academically Adrift: Limited Learning on College Campuses</u>, David Gelernter <u>America-Lite: How Imperial Academia Dismantled Our Culture</u>, . Scott Greer – <u>No Campus for White Men: The Transformation of Higher Education into Hateful Indoctrination</u>.

These authors would argue that what American higher education needs is not simply better technology to deliver their message, but a different message in the first place. This kind of reform can come only from the outside. Somebody might conclude that the Trump electorate, arguably half the USA, would probably love to see an online university that offered mere

education, without political indoctrination. I argue that on-campus education would be easy to deliver here in Ukraine using MOOC videos and Ukrainian teaching assistants. It would be attractive to Ukrainians seeking an American education and Americans looking for a campus environment where coeds remain feminine and without political correctness. At any rate, that is not the topic of this book, so I abandon these notions with these paragraphs.

Head's problem was that the MOOC technology was simply not ripe. She writes that a colleague noted "We can't build the track fast enough for this train to run on." She says "And that was when eagerness and naïveté really caught up with me—I signed on to our project assuming that the track was already there. It wasn't, and that meant a series of disruptions." This is the effectiveness / efficiency argument. Many critics of America's universities would say they are not effective. Head was concerned with efficient delivery of the product, without questioning whether or not it was effective.

Head questions whether or not alternative means of delivering education will be effective. I absolutely concur. Students entering the University today are not prepared for the hard work of educating themselves. They need to be spoonfed. Read Ben Sasse's experience as president of Midland University prior to his election to the Senate in The Vanishing American Adult: Our Coming-of-Age Crisis--and How to Rebuild a Culture of Self-Reliance, and the book he cites often, Lost in Transition: The Dark Side of Emerging Adulthood. The bottom line would be, just as Head suggests, that the modern universities client base is not by and large ready to take advantage of disruptive technology. Dale Stephens Hacking Your Education: Ditch the Lectures, Save Tens of Thousands, and Learn More Than Your Peers Ever Will and Charles Hugh Smith The Nearly Free University and the Emerging Economy: The Revolution in Higher Education assume grit and drive when they give advice for getting a cheap education. It is not for the masses.

Head describes the link the technical process of producing professional level courses to be delivered by Coursera. She adds that when this class is live, students expect 24/7 monitoring and quick responses to their queries, questions and comments.

This interaction all happens online. I am enough of a fogey to contend that students in a composition class need to have their assignments graded individually. I cannot imagine my having learned English without my 11th grade English teacher, Felicia Carson, painstakingly marking up my written assignments. Likewise for my assignments in French and German. Not having had diligent instructors as I learned my other languages, I note that my grammar is simply not that good. Without being corrected, it could not be.

Head addresses this issue in Chapter Six. Her take is pretty much the same as what I wrote above.

As Bill Gates, who sells Microsoft Word, ought to know, spell and grammar checkers are simply not that good yet. I frequently correct work written by my Ukrainian colleagues. Artificial intelligence will simply be unable to do what I do within the next 20 years.

Returning to Head's argument, I cannot conceive how students can truly learn English composition simply via back-and-forth on the Internet unless that exchange involves the students' sending complete compositions or videos of speeches, and the instructors' correcting them. While I would be a great advocate of MOOC education for chemistry or statistics, I cannot envision it for teaching languages.

If an online course provided interaction with an instructor, the cost of the instructor's time would have to be factored into the course price. The fairest way to do this would be to make it variable, charging by the hour like tutors do. In other words, an effective language course could probably not be free.

Head mentions that the needed correction mechanism is provided by "peer review." That would be like a Toastmasters club, in which members critique each other's speeches. Yes, it does lead to some improvement. However, no, it would not be an adequate vehicle for correcting any

significant grammatical errors. Probably it would not be very good for correcting structural or thematic errors either. There is a need for a paid professional educator in language courses.

On the other hand, one can learn computer languages, statistics, mathematics and engineering largely by self-study. You simply need a computer to try out what you think you've learned and see if it works. Other courses, such as history, are matters of factual knowledge. The college board was pretty good at developing multiple-choice tests to assess factual knowledge. I add, however, that seriously studying history is a matter of comparing many different points of view, which cannot be done well by multiple choice. My bottom line is that the MOOC format was much better suited to some kinds of courses down to others.

Seemingly anticipating my objections, Head points out that the Brigham Young University – Idaho and Harvard experiments in MOOC's have been successful in their different spheres of excellence because of their ability to provide personal attention to students. Harvard provided an in-house system of tutors and mentors and BYU provided a network of faculty, students and church members. In other words, the most successful implementations involved human interaction.

FOUR Talking Business in Higher Education

In this chapter the author takes on the concept of the University as a business. The product, of course, is an educated adult ready for the workplace.

The first point is that colleges are generally not profit-making institutions. For-profit colleges, like Trump University (which the author boos), Corinthian college and Strayer are not high in prestige. The illusion remains that colleges are there for some higher calling than simply preparing people for work.

There is a discussion of the economics of producing MOOC's as opposed to delivering a standard college course. There are a lot of hidden costs in MOOC's. It is not as cost-effective as advocates would claim.

Head discusses accreditation. It is an expensive process, but essential for maintaining the value of the degrees that are being awarded. Accreditation accrues to the institution. In a parallel argument, she discusses institutional review boards (IRB's) and human subjects research. In both she defends the bureaucracy.

In her own noncredit MOOC course, with almost 22,000 enrollees, only 238 received a completion certificate. Just over 1%. That does not represent a success.

Head describes the importance of establishing a rapport with the individual students, both in classroom discussion related to the academic work, and as personal relationships outside of the academics. The importance of such intergenerational connections is stressed by Sasse and Christian in the works cited above. Personal connections are an invaluable part of the educational process.

Head has a broad discussion of the intellectual property issues in MOOC's. On campus, it is quite well established that professors own the intellectual property rights to what they teach. Once it was videotaped and distributed by the Internet, the matter becomes murky.

The disruptors' argument is that competition will improve the level of instruction. Head takes exception. Each instructor is unique, and takes a unique approach to teaching. Even the Gates foundation suggestion that they standardize seemed somewhat silly. Each instructor is unique and has unique gifts for making connections with the students. Some things cannot be standardized.

Head provides an amusing take on the resume inflation that is rife in the college admissions process.

FIVE Welders, Not Philosophers

This chapter is a defense of traditional liberal education, the kind that can be best delivered in a campus environment.

Head notes that employers are interested primarily in the prospect's first job. The student himself should be interested in his ability to learn new jobs over the course of her career. She contends that the liberalarts offer a better preparation.

Head makes that standard defense of liberal arts as a tool to form a complete human being. She notes that Georgia Tech allows STEM students to graduate with only minimal exposure to liberal arts, whereas liberal arts majors must have at least some exposure to mathematics. She points to successes such as Carlie Fiorina, the first woman to head a Fortune 500 company, who graduated in fields such as philosophy.

Head talks about the sense of entitlement of today's students. They were willing to bribe her. Academic integrity is hard to maintain even on campus. The "customer is always right" attitude has certainly taken with the consumerist students.

She notes that international students are often not interested in distance learning – they want a visa to the United States and the opportunity to work there. Georgia Tech experienced a number of surprises in their Online Masters (OMS) program.

International students present challenges in other ways. How should the MOOC presenter be dressed? What are the issues facing a woman delivering education to a diverse international student body?

Head brings up the obvious point that a MOOC student requires broadband access. Even in the United States that could not be guaranteed – there were places where dialup was the best available. As I write this from Ukraine in 2017, I note that all of the Ukrainians I know have Internet connected smart phones. I do not think they would see this as an issue.

Head writes "at MOOC scale there is no meaningful way to engage the vast majority of students on a personal level." This is absolutely true, given the modest level of preparation and motivation that can be expected of such a broad audience, it is a significant handicap.

SIX Only the Countable Counts

In this chapter Head tackles standardized testing. Of course, without personnel available to evaluate work products in a MOOC environment standardized testing would be essential to assess student progress.

She makes the standard observation that standardized testing produces students who are pretty good at taking standardized tests. They may or may not master the subject matter. Moreover, there is a strong incentive to cheat and students and teachers alike are inventive when it comes to cheating.

Head writes that "The College Boards Scholastic Aptitude Test predicts a test-taker's family's wealth better than college success." Nonetheless, colleges are bound to use them. They affect the U.S. News & World Report rankings of college selectivity.

I repeat another argument from the employment sphere. For reasons of diversity employers are not allowed to give IQ tests to prospective employees. Therefore they use a system of double proxies. The institution from which a student graduates as a proxy for SAT scores, which is in turn a proxy for intelligence. My Berkeley degree opened doors for me.

Student assessment experts identify three categories of tests: formative, summative, and

criterion-based. A formative test helps a student assess progress along the way. A summative test produces a numerical score evaluating what the student learned over a period of time – usually a semester. Criterion-based tests are pass/fail, such as the bar exam or a driver's license.

Head's point is that her MOOC environment was not very good for delivering formative tests. This is an irony; one of the strengths of computer learning is that the computer can compose questions and give students useful feedback more quickly than an instructor can in well-defined contexts such as synonym and antonym identification, parts of speech identification, or mathematical computations.

She says that they placed quizzes for self-assessment in the middle of videos. That seems to me like the wrong medium and the wrong place. Probably the video should be embedded in an HTML environment which also provides links to interactive tests. At any rate, if that's the way they did it, her complaint is absolute legitimate.

She notes frequently throughout the book that the development staff putting together the MOOC program simply could not identify with the students who would be using it to study. The programmers did not intuitively understand what would work with the students.

She notes that the problems identified in this chapter are probably just growing pains. This is true of many of them, but the major limitation that she notes, a lack of personal interaction, is one that cannot be easily overcome. She writes that "... it is process-based skills like writing that are most likely to be assessed poorly because standardized tests usually use objective based methods." In this she is absolutely right.

One problem with standardized testing is that it presumes a standardized curriculum across the entire body of people who are going to be tested. If the test concerns integral calculus, one university may include Riemmann - Stiltjes integrals and another one may not. How do you make the test? Should credentialing be splintered into hundreds of micro tests? How much would it cost? Who could make sense of all those numbers?

Head says that machine grading of writing simply can't be done. Algorithms cannot yet substitute for human evaluation. It begs the question as to how the writing portion of the SAT and GRE are scored, a question that crossed my mind as I took the GRE in 2003. The computer asked me to write an essay, which I did. The computer might have been able to parse out my usage of appropriate prepositions, verb conjugations and word order. Even that I rather doubt. It could have assigned a Fleisch-Kincaid reading difficulty score, which might have been part of the evaluation. There is no way that a machine could have assessed whether or not what I wrote made sense, and I cannot believe that some bleary-eyed grad student, reading hundreds of such essays, could give enough time to mind to give it an adequate assessment. Head's complaint seems very well-founded.

SEVEN The Superstar Professor

Head says that in online platforms the pedagogue must play two roles: authority figure and presenter. In classroom education these two of course go together, but in MOOC's the author of the coursework and the presenter can be two different people.

Although MOOC's do employ some mechanisms for interaction with the students, the nature of the medium tends to make it much more of a one-way transaction.

She writes "for instructors who have already attained superstar status in the field, teaching MOOC could be similar to the way they normally interact with students. If they design, write and present lectures in their large and popular courses but have junior instructors or teaching assistants handle the grade assignments and interactions with students, then not much would be different following the migration of a course to MOOC platform."

A problem with MOOC's is that certain presenters will become stars, rendering other academics obsolete or extraneous. If the course material is coming from video, it reduces the faculty to the status of teaching assistants.

Head emphasizes that great teaching is not something that comes automatically. It takes experience and a lot of hard work delivering the course. It depends, of course, on students who are capable and willing.

Head discusses the issues facing a woman presenter. Her dress has to be modest and appropriate for a worldwide audience. Head felt the need to wear both an engagement at a wedding ring to signal to the audience that she was taken. Men would not have this issue. Head also had to be careful to make a consistent image, keeping her hair dyed and using consistent facial makeup.

Head makes the point that MOOC presenter needs an actor's qualities. A confident manner, reasonable appearance, a good wardrobe, many other things that most university professors don't think about.

A large number of students in MOOC, and their anonymity, makes the teacher kind of a public figure. There are privacy issues concerning email addresses, telephones and other such personal data being too readily available to the enrollees.

Head makes the point that junior faculty in the University are quite poorly paid. This would be the adjunct professors especially, and tenure-track faculty next. These are people whose jobs would be impacted by MOOC's, as the superstar professors would be more likely to be the presenters.

EIGHT The Harvard Mystique

Head says that there is a contradiction between the frequently stated goal to democratize higher education through disruptive innovation and the constant validation of the status of existing institutions within the three-tier structure: elites, middles, and community college and all else. Head says that as long as the public and the media accept this system, there is not much hope for change.

Head says that in her experience, especially Georgia Tech, she doesn't run into much Harvard envy. She says "Christiansen and Eyring's recommendations to develop the ambition to court prestigious rankings is, therefore, misplaced. The vast majority of universities will never find themselves near the top of ranking lists."

It is the top-tier universities such as Harvard, MIT and Stanford that seem to be leading the MOOC parade. As they do so they are careful to look out for their own future prestige. They are not as concerned about how what they do affects lower ranking universities.

Head notes how widespread attendance to graduate school is. 25% of all college graduates enter some advanced graduate education within a year of graduation. At some schools such as St. Mary's College, Maryland, up to 64% of graduates go on to postgrad.

Head mentions the "unschooling" movement, where college-age students "hack" their education by accessing freely available resources online and exhibit their knowledge through making and social activism rather than the writing of papers taking exams. Here I refer again to Stephens <u>Hacking Your Education</u>.

Head names three problems with hacking your education:

- 1) The lack of curating and accreditation. Nobody can assess the value of what is being learned.
- 2) Students do not have the tools to integrate randomly collected information into deeply connected webs of knowledge.
- 3) Such a system could become authoritarian and prejudices students chances by making a not inappropriate judgments about them

She closes the chapter with the line "disruption is something that happens to other people. The elites take care of each other."

NINE Missionary Creep

Head addresses the promise of free education for all. She says "One of the more compelling arguments for MOOCs has been the humanitarian benefit. From the beginning, MOOC platform providers and their proponents have touted the idea of free education for all—with what seems a particular nod to the developing world. MOOC instructors would play the role of aid workers and missionaries, transmitting the knowledge—but also perhaps the values and canon—of a privileged Western educational system."

She was skeptical. So am I. The same radical claims were made for television 60 years ago. Education is a matter of motivated, capable and well-prepared students acquiring knowledge in a somewhat systematic manner. MOOC's simply do not provide the system. Highly motivated students may succeed, but it cannot be a panacea. That is this reviewer's point of view.

Head says that educated slip into the language of religion. Let us add that their religious beliefs embrace more than simply educating all comers. There is a strong current of social justice among many faculty today. MOOC's could easily be a vehicle for mass indoctrination.

Head emphasizes the importance of the BYU – Idaho association with the Mormon church. A large number of retirees were available to help the students. I add that the Mormons are a traditionally highly educated and relatively well-to-do sect. It would be hard to imagine another institution being able to provide the same kind of resources.

Head has an odd paragraph under the heading "Family Values." It fits with nothing else in her book, or the two that she cites by Eyring and Christiansen. She writes "in addition to their focus on disruptive technology, Christiansen and Eyring also make a controversial argument about disruption, namely a return to values-based education, saying "for the sake of both its own survival and society is good, the traditional university needs to reengage on the subject of values and renew its commitment to character development. The moral void created by the secularization of higher education is a critical weakness." They continue by arguing that students want help developing their personal values"

I find it amazing that anybody would assert us. It certainly flies in the face of what is being written about the millennial generation in books like "Lost in Transition," mentioned above.

She has Christiansen and Eyring cite former Harvard president Derek Bok on preparing students to be enlightened citizens. Derek Bok retired in 1991. Harvard students today epitomize the American campus, with its safe spaces, trigger warnings and routine denial of free speech. The right, quite rightly in my mind, derides them as "special snowflakes." At any rate, I agree with Head in her skepticism about any perceived need for moral instruction by the students themselves. Or the faculty, for that matter.

She says that Harvard faculty are uniquely protected. While this may be true in general, we must recall that even Harvard's president, Larry Summers, was sacked over an issue of political correctness. He made a factually correct statement that was politically unacceptable, which served as a pretext for getting rid of him. In any case, the idea that the MOOC's will be a boon to free speech is laughable.

Mainstream MOOC courses will be super-homogenized to be offensive to nobody, especially if there is a profit motive behind them. If not, they may well be used by the reigning elites in the modern university to deliver their progressive political message to an un-inoculated worldwide audience.

Head cites the 19th century Indian boarding schools, which were touted as a way to educate Native American children, but were actually designed a system of cultural repression. This may be a little bit over the top - the one in Carlisle Pennsylvania seems to have been founded with good motives, as was Dartmouth College and as or similar institutions in Brazil. But the fact is that you have to choose a curriculum, and there cannot be a bias-free curriculum.

I, the reviewer, note that this is another reason why MOOKs are more applicable for science and technology courses. Engineering and calculus are just not politically charged the way literature and history courses would be.

EPILOGUE

Head repeats the case that is made, the fantasy that MOOC's will enable students who could not otherwise get an education to become educated. She reiterates the fact that it is impossible by and large to establish a personal connection between the student and the teacher, which is one of the most important aspects of a traditional education.

She notes that even classroom students are constantly distracted by electronic devices. They cannot focus on the lecture at hand because they are constantly fiddling with their smart phones. They have a hard time doing homework assignments because they keep getting instant messages via Facebook and whatever. See [[ASIN:1137278315 iDisorder: Understanding Our Obsession with Technology and Overcoming Its Hold on Us]] and [[ASIN:1585427128 The Dumbest Generation: How the Digital Age Stupefies Young Americans and Jeopardizes Our Future(Or, Don 't Trust Anyone Under 30)]]. MOOC education would subject them to more of the same bad things, with no supervision.

I will make a parallel argument about reading. This is a marvelous era for person like myself who loves to read. I literally have all of the world's literature available online. And yet, I know fewer and fewer people who spend their time reading. Those who do tend to be those who became booklovers a half-century ago, not the rising generation. Just like with television, MOOC's appear to be a technology with a lot of promise that will not be realized simply because the limitations of human nature.

Just as I write this, Head offers this pithy if perhaps apocryphal quote from management guru Peter Drucker: "culture eats strategy for breakfast."

Head closes with a note that her experience with MOOC's has provided a lot of useful lessons that can be applied in other aspects of education. But she thinks that people who are enamored of the notion that MOOC's represent a technological magic bullet will find themselves disappointed.