

University of Maryland Francis King Carey School of Law

DigitalCommons@UM Carey Law

Faculty Scholarship

Francis King Carey School of Law Faculty

2014

The Merchants of MOOCs

James Grimmelman

University of Maryland Francis King Carey School of Law, jgrimmelman@law.umaryland.edu

Follow this and additional works at: https://digitalcommons.law.umaryland.edu/fac_pubs



Part of the [Education Commons](#)

Digital Commons Citation

44 Seton Hall Law Review 1035 (2014).

This Article is brought to you for free and open access by the Francis King Carey School of Law Faculty at DigitalCommons@UM Carey Law. It has been accepted for inclusion in Faculty Scholarship by an authorized administrator of DigitalCommons@UM Carey Law. For more information, please contact smccarty@law.umaryland.edu.

The Merchants of MOOCs

James Grimmelmann*

Meet the MOOC. In 2011, Stanford professors Peter Norvig and Sebastian Thrun filmed the lectures from their artificial intelligence *course* and put the videos *online*.¹ They *opened* registration to anyone, anywhere in the world. The response was *massive*: more than 160,000 students signed up. Only 23,000 completed the course, but that is still roughly 22,800 more students than would have in a normal semester. And of the 248 students who received perfect scores, every single one was online rather than at Stanford.

The success of the “Stanford AI course” made MOOCs—Massive Open Online Courses—front page news. It also drew the attention of a group I will call the Merchants of MOOCs: a loose network of educational entrepreneurs investing in bringing MOOCs to the masses. Thrun gave up his Stanford tenure to found Udacity, which has raised \$20 million in venture capital;² two of his Stanford colleagues founded Coursera, which has \$65 million to its name;³ Harvard and MIT jointly funded the nonprofit edX with \$60 million.⁴ They, and many others, are promoting MOOCs as a transformative innovation for higher education.

Consider a typical MOOC program. Columbia University is working with a 14-member international consortium including the London School of Economics and the Smithsonian to offer courses in “computer science and technology, the arts, journalism, and physics” featuring “a wealth of free content usually only available on university campuses and at leading museums and libraries.”⁵ It centers around “elaborate online courses replicating the Ivy League experience” that combine streaming

* Professor of Law, University of Maryland Francis King Carey School of Law. I presented an earlier version of this essay at the Legal Education Looking Forward symposium at Seton Hall Law School on October 25, 2013, and the final version of the essay will appear in the *Seton Hall Law Review*. My thanks to the participants there, and to Aislinn Black, Frank Pasquale, Rebecca Tushnet, and others to be named later for their comments. The final version of this essay will be made available under a Creative Commons license.

1 See generally John Markoff, *Virtual and Artificial, But 58,000 Want Course*, N.Y. TIMES, Aug. 15, 2011, at A11; Tamar Lewin, *Instruction for Masses Knocks Down Campus Walls*, N.Y. TIMES, Mar. 4, 2012, at A11; Steven Leckart, *The Stanford Education Experiment Could Change Higher Education Forever*, WIRED (Mar. 30, 2012), http://www.wired.com/wiredscience/2012/03/ff_aiclass/; Jeffrey R. Young, *From Self-Flying Helicopters to Classrooms of the Future*, CHRON. HIGHER ED., Oct. 5, 2012, at B12.

2 See *Udacity*, CRUNCHBASE, <http://www.crunchbase.com/company/udacity>.

3 See *Coursera*, CRUNCHBASE, <http://www.crunchbase.com/company/coursera>.

4 See Press Release, MIT and Harvard Announce edX (May 2, 2012), <http://web.mit.edu/newsoffice/2012/mit-harvard-edx-announcement-050212.html>.

5 Press Release: Fathom Poised to Redefine Scope of Online Learning, FATHOM (Apr. 3, 2000), available at http://web.archive.org/web/20030123191517/http://fathom.com/about/about_press_page.jhtml?pressReleaseId=1063.

video, online texts, and discussion groups.⁶ A great many are free, but college students seeking course credit can enroll in more formal courses for a fee.⁷

—Wait. What's that? Oh. I see.—

Excuse me. I've just been informed that I've been talking about Columbia's *previous* venture into online learning, Fathom.com, which launched in 2000.⁸ Although some 65,000 people created Fathom accounts, very few of them paid for any courses.⁹ Fathom closed in 2003 after blowing through \$25 million.¹⁰ Fathom, of course, is completely different from Columbia's *current* venture into online learning in partnership with Coursera, which offers Ivy League courses in computer science and economics that combine streaming video, online texts, and discussion groups.¹¹ They're free to take, but Coursera offers certificates of completion for a fee.¹² As you can see, Fathom and Coursera have utterly nothing in common, nothing at all—or nothing that anyone involved cares to admit.

As Columbia's amnesia about Fathom suggests, MOOCs are far from unprecedented. Almost everything in them has been tried before, often repeatedly. In what follows, I will critically examine some common claims about MOOCs in light of this missing context, and suggest that MOOCs are both far less and far more disruptive than the Merchants of MOOCs would have us believe.¹³

I. Superstars

The first claim about MOOCs is that they will allow all students to study with the very best professors. Thousands of Joe Coursepacks teach introductory calculus every year. Some of them are good; some are terrible. Replace them with a single MOOC,

6 Katie Hafner, *Lessons Learned At Dot-Com U.*, N.Y. TIMES, May 2, 2002, at E1.

7 *Id.*

8 See TAYLOR WALSH, UNLOCKING THE GATES: HOW AND WHY LEADING UNIVERSITIES ARE OPENING UP ACCESS TO THEIR COURSES 25–33 (2011).

9 *Id.* at 33.

10 See Stephen Philips, *Blitzing the Glitz*, TIMES (LONDON) HIGHER EDUC. (May 16, 2003), <http://www.timeshighereducation.co.uk/176498.article>.

11 Columbia University, COURSERA, <https://www.coursera.org/columbia>.

12 *A Milestone for Signature Track, Certificates for the Life-Long Learner* COURSERA BLOG (Sept. 12, 2013), <http://blog.coursera.org/post/61047298750/a-milestone-for-signature-track-certificates-for-the>.

13 For a useful survey of MOOC history and theory, with some reflections on their implications for legal education, see generally Phillip G. Schrag, *MOOCs and Legal Education: Valuable Innovation or Looming Disaster?*, VILL. L. REV. (forthcoming), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2278261.

and it can be assigned to the clearest and most engaging lecturer.¹⁴ As David Brooks put it, “a few star professors can lecture to millions.”¹⁵

There’s just one problem. We already have lectures from elite professors for the masses, on calculus and on many other subjects. They’re called “The Great Courses” and they come in an affordable package of 24 videos for a special limited-time price of \$59.95.¹⁶ The “massive” in “MOOC” is the same as the “mass” in “mass media”: people have been using broadcast technologies to deliver education for decades. From 1957 to 1982, CBS aired *Sunrise Semester*, a half-hour program in the early morning featuring NYU professors delivering college-level lectures. NBC’s answer was *Continental Classroom*, which ran from 1958 to 1963. Nicaragua used radio for distance education in mathematics starting in 1974; dozens of countries followed its lead.¹⁷ The MOOC format adds little to the tools already at hand.

If anything, the MOOCs of today fall rather short of their predecessors. A recent article in *The New Yorker* offers a revealing look inside the making of one of Harvard’s MOOCs, “The Ancient Greek Hero.”¹⁸ The day before the course went live, the videos for the first lecture weren’t finished.¹⁹ The main video editor was a classics PhD, but don’t worry, she was trained in “digital storytelling” by Harvard’s “MOOC video guru.”²⁰ And the professor, Gregory Nagy, was planning to bring a cameraman on his spring break trip to Greece to film the mists at Delphi.²¹ Why, we might ask, is the Francis Jones Professor of Classical Greek Literature scrambling to get second-rate B-roll footage? And do we really think that the resulting videos will be the pinnacle of pedagogical achievement in teaching ancient Greek literature?

14 E.g., Robert Ghrist, *Calculus: Single Variable*, COURSERA, <https://www.coursera.org/course/calcing>. Professor Ghrist is on the faculty of the University of Pennsylvania. *Robert Ghrist*, COURSERA, <https://www.coursera.org/instructor/~140>.

15 David Brooks, *The Campus Tsunami*, N.Y. TIMES, May 30, 2012, at A29.

16 E.g., Michael Starbird, *Change and Motion: Calculus Made Clear, 2nd Edition*, THE GREAT COURSES, http://www.thegreatcourses.com/tgc/courses/course_detail.aspx?cid=177. Professor Starbird is on the faculty of the University of Texas at Austin. *Michael Starbird*, THE GREAT COURSES, http://www.thegreatcourses.com/tgc/professors/professor_detail.aspx?pid=191.

17 E.g., Andrea Bosch, *Interactive Radio Instruction: Twenty-Three Years of Improving Educational Quality*, I (WORLD BANK) TECH. & EDUC. NOTES I (1997) (survey summarizing twenty-two projects using radio for distance education), available at http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1997/01/01/000009265_3980429110717/Rendered/PDF/multi_page.pdf.

18 Nathan Heller, *Laptop U*, THE NEW YORKER, May 20, 2013, at 80.

19 *Id.* at 83.

20 *Id.*

21 *Id.*

II. Flipping

A second claim about MOOCs has to do, paradoxically, with interactive learning. MOOCs themselves are pilotless drones—automated and distant—but they can also enable the teachers who have boots on the ground to get up close and personal with students. Consider another Harvard course. Michael Sandel teaches a moral philosophy survey so popular it might as well be a MOOC: “Justice” regularly enrolls a thousand students.²² He turned it into a MOOC for edX, which then went out to other universities inviting them to use “JusticeX” not as a replacement for philosophy courses but as component of them.²³

The idea here is the “flipped classroom.”²⁴ Instead of bringing students together for lectures in a scheduled class and having them do homework problems on their own, a flipped class puts the lectures online for students to watch on their own time and has them come together in the classroom to solve problems. The theory is that intensive learning requires interactive engagement, so that face-to-face class time is most usefully spent on this mode of learning. The lecture’s core job—delivering information—can be pushed to asynchronous out-of-class channels in a way that coaching and team problem-solving cannot.

The theory of the flipped classroom, like the theory of the superstar professor, sees Joe Coursepack’s lectures as a horrible waste, but for quite different reasons. The problem is not Joe Coursepack himself, but the misuse of his skills. Thus, rather than replace Joe Coursepack with Michael Sandel, the flipped classroom aims to leave Joe Coursepack in his job and replace his lectures with seminars. EdX was proffering JusticeX as the lecture component of a flipped classroom. In this “blended” MOOC model, Sandel takes on the grunt work of the moral philosophy lecture, leaving individual philosophy professors free to focus on discussion and dialogue.²⁵

The philosophers at one such institution, San José State University, demurred, writing in an open letter to Sandel that “There is no pedagogical problem in our department that JusticeX solves.”²⁶ They have a point. True, a flipped classroom requires canned lectures. But producing lectures—whether for canning or for immediate consumption—is the *easy* side of teaching on this theory. The pedagogical

22 See Nikita Makarchev, *Sandel Wins Enrollment Battle*

23 See Rob Reich, *Much Ado About MOOCs*, BOSTON REV. (June 13, 2013), <http://bostonreview.net/us/much-ado-about-moocs>.

24 See, e.g., Heller, *supra* note 18, at 83; Tina Rosenberg, *Turning Education Upside Down*, OPINIONATOR (Oct. 9, 2013), <http://opinionator.blogs.nytimes.com/2013/10/09/turning-education-upside-down/>.

25 David LaMartina, *Blended MOOCs: The Best of Both Worlds?*, CAMPUS TECH. (Aug. 21, 2013), <http://campustechnology.com/articles/2013/08/21/blended-moocs-the-best-of-both-worlds.aspx>.

26 Letter from The Department of Philosophy, San José State University to Michael Sandel (Apr. 29, 2013), available at <http://s3.documentcloud.org/documents/695245/san-jose-state-u-open-letter.pdf>.

argument for flipping the classroom is precisely that the hard part of teaching is the face-to-face part, the that part that doesn't go away when you put Michael Sandel on YouTube and hit "play." What JusticeX does for philosophy professors, they could do for themselves with a webcam. If lectures are broken, MOOCs don't fix them.

To be sure, Michael Sandel and the JusticeX team have access to better production facilities and support than your typical Joe Coursepack, and his lectures are the product of decades of mindful refinement. But let us not forget that the Stanford AI course's recorded lectures caught on not because of their technical sophistication but in spite of their lack of it. Thrun and Norvig filmed their videos in the basement of Thrun's guesthouse, in front of a tiny white screen.²⁷ Sandel himself "chose to do nothing more than upload [existing videos of his lectures from a PBS series], broken down into shorter chunks, accompanied by poorly written multiple-choice quizzes on the content at regular intervals."²⁸ Today's MOOCs are rush jobs, but it hasn't held them back. If lo-fi production was good enough for the world's most successful MOOC, it seems unlikely that hi-fi production is the secret ingredient in the MOOC cocktail.

III. Scale

A third claim about MOOCs is that they solve a version of Baumol's cost disease.²⁹ Entertainment scales with technology: millions of people can play the latest Call of Duty for the cost of making it once. But teaching doesn't scale. Thousands of Joe Coursepacks at thousands of colleges give the same lectures every year, duplicating each others' work. By pushing that work into a single set of videos and online materials, goes the argument, it becomes possible to offer an equivalent education for much less.

Again, a comparison with the superstar theory is illuminating. Rather than replacing Joe Coursepack with Michael Sandel because Michael Sandel is *better*, the point is to replace Joe Coursepack with Michael Sandel because Michael Sandel is *cheaper*. He isn't cheaper in an absolute sense; named chairs in the Ivy League eat steak whenever they want, and their MOOC teams have to eat, too. Rather, Michael Sandel is far cheaper *per student* than Joe Coursepack because his salary and support can be spread across many more users. This is what Internet startups mean when they

²⁷ See Lekcart, *supra* note 1.

²⁸ Reich, *supra* note 23.

²⁹ E.g., Heller, *supra* note 18, at 84; Bruce Guile and David Teece, *The Real Winners of the Coming Revolution in Higher Education*, FORBES (Mar. 3, 2013), <http://www.forbes.com/sites/forbesleadershipforum/2013/03/12/the-real-winners-of-the-coming-revolution-in-higher-education/>. But see Dylan Matthews, *The Tuition is Too Damn High, Part V — Is the economy forcing colleges to spend more?*, WONKBLOG (Aug. 30, 2013), <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/08/30/the-tuition-is-too-damn-high-part-v-is-the-economy-forcing-colleges-to-spend-more/> (challenging Baumol cost disease explanation of higher education prices).

say that a business model “scales”; this is why the “massive” in MOOC is of such interest to investors.

But even on this basis, it is still not clear that Michael Sandel has much to offer San José State. By their nature, large-lecture survey courses are already where faculty operate at maximum efficiency. The time the San José State philosophy faculty devote to introductory lectures is simply not where the great bulk of costs in having a philosophy department lie. To be sure, preparing good lectures is serious work for any conscientious professor, and it can take years of revisions to get a lecture course right. But taking that work off a department’s shoulders will not fundamentally transform higher education.³⁰ If Baumol’s cost disease is the problem, MOOCs “solve” it not simply by cutting the cost of lecture classes, but also by substituting lectures for seminars.

MOOCs also sometimes promise to reap economies of scale by using automatic grading and peer assessment.³¹ It might be more accurate to say, however, that MOOCs use the grading methods they can afford, and if those techniques do any good for students, so much the better. In its first and famous run-through, the Stanford AI course simply dropped the programming assignments because the course staff “had enough on its plate.”³² Perhaps MOOCs will someday crack the tough nut of grading, but for now, they assume a nutcracker.

IV. Unbundling

A fourth claim about MOOCs is that they will disrupt higher education by unbundling it: that is, they will replace *prix fixe* all-inclusive programs of study with à la carte ones. Take for example Georgia Tech’s online masters in computer science, essentially a series of MOOCs rolled together into a degree program.³³ For \$6,600, Georgia Tech will certify you as having passed their program of study and graduate you with a fully-accredited masters degree. There is no need to move to Atlanta, no need to quit your day job, no need to attend Yellow Jackets games.

Unbundling is a way of extending the reach of higher education. Carnegie

30 This point is an application of Amdahl’s law: the maximum overall improvement from optimizing part of a system is limited to the fraction of the system that the part represents. If lecture courses take up 25% of a department’s teaching effort, then even a 50% drop in the costs of delivering lectures will still cut the department’s overall costs by only 12.5%. Large lecture courses, *precisely because they are large*, only look like the great bulk of what a department does from the students’ point of view, not from the faculty’s. The average class size seen by students is always larger than the average class size seen by professors.

31 See generally, e.g., Chris Piech et al., *Tuned Models of Peer Assessment in MOOCs*, PROC. 6TH ANN. INT’L CONF. ON EDUC. DATA MINING (2013), <http://arxiv.org/abs/1307.2579>.

32 Leckart, *supra* note 1.

33 Gabriel Kahn, *The MOOC That Roared*, SLATE (July 23, 2013), http://www.slate.com/articles/technology/technology/2013/07/georgia_tech_s_computer_science_mooc_the_super_cheap_master_s_degree_that.html.

Mellon's masters in computer science costs \$40,000.³⁴ Students who could never scrape together 400,000 dimes can find a way to make it work at a fifth the price. So Georgia Tech's online masters brings higher education to students who were previously excluded from it because of the cost.

But unbundling is also a way of undercutting other parts of the higher education market. Georgia Tech's \$7,000 degree won't just bring in new students who couldn't afford Carnegie Mellon's \$40,000; it will also siphon away some students who could. This possibility cannot have escaped the attention of Georgia Tech's administrators—or Carnegie Mellon's. It certainly didn't escape the attention of the philosophers at San José State, who wrote that the JusticeX MOOC model would turn them into “glorified teaching assistant[s].”³⁵

This is where the claim of “disruption” comes in. The term comes from Clayton Christensen's theory of disruptive innovation, in which some new technologies change an industry's entire structure.³⁶ These innovations deliver value to users in a way that is incompatible with how existing institutions in the industry work. As a result, it is upstarts rather than incumbents who deploy the innovation—and then supplant the incumbents as the innovation takes off. MOOCs look like a disruptive innovation because of their openness, their online delivery, and their digital economies of scale—all qualities that set them apart from traditional universities.

It is the claim of disruption that is largely responsible for the sudden influx of venture capital backing the Merchants of MOOCs. Disruption is about many things, but it is especially about money. Venture capitalists look at an existing market, here higher education, and tally up the great many dollars coursing through it in a year. Then they look for a disruption machine that pockets a large fraction of those dollars by dramatically undercutting the industry's present prices. The money in MOOCs, in other words, comes from a belief that they will be effective in routing around higher education as it currently exists and extracting some of the money thereby shaken loose. The Merchants of MOOCs look forward to the day when the philosophers at San José State bring home the salaries of glorified teaching assistants.

Disruptive innovation, of course, requires both a disruptor and a disrruptee. In existing universities, the large survey courses that MOOCs are poised to replace are currently cross-subsidizing the seminars.³⁷ They pay for the library, the study space, the lab benches, and the many other components of an “education” that have no sepa-

34 2013–14 Graduate Tuition and Fees Information, CARNEGIE MELLON UNIVERSITY, <http://www.cmu.edu/hub/tuition/graduate/index.html>.

35 See Letter from the Department of Philosophy, *supra* note 26.

36 See generally CLAYTON CHRISTENSEN, *THE INNOVATOR'S DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL* (1997).

37 Ironically, it is precisely these sorts of small and focused instruction that flipped-classroom proponents continually extoll.

rate price tag attached. Thus, we might call unbundling by another name: skimming the cream.

But here again, there is something missing from the story. We already have inexpensive unbundled remote courses of study that can culminate in accredited degrees, and we have had them for a long time. The University of Phoenix offered its first on-line class in 1989. Before computer networks, there was television: NYU gave some students credit for *Sunrise Semester* courses in the 1950s. And before there was television, there were letters: the University of London started awarding correspondence-course degrees in 1858. If the unbundling of the degree from the campus is the test, MOOCs are not new, and MOOCs are not special.

V. Openness

A fifth claim about MOOCs is that they will make higher education more open. What made the Stanford AI course take off is not that it was online or that it was massive, but that it was genuinely open to all comers. Traditional university courses like Carnegie Mellon's are trapped behind a \$40,000 paywall; the Stanford AI course was free for all. It is precisely this quality, however, that is hardest to see and to sustain when MOOCs are treated as profit-making ventures.³⁸ It is not obvious how courses offered for free online will pay for themselves. Most of the options being tried are adapted from other Internet businesses. One approach is to make the courses themselves free but charge for credit—a “freemium” model familiar from free-to-play games like Candy Crush and Temple Run.³⁹ Another is to charge recruiters for access to students—an ad-supported model familiar from Facebook.⁴⁰ And the Merchants of MOOCs seem inclined to walk if it becomes clear there is no blood in the stone.⁴¹ Sebastian Thrun himself now believes that the future of college education consists of courses catering to the hiring needs of the companies that sponsor them.⁴²

To similar effect is the related suggestion that MOOCs will make higher education more egalitarian, Universities are hierarchical, to be sure, but so are MOOCs. If anything, the Merchants of MOOCs have put the superstar lecturer on a higher and

38 See, e.g., Tamar Lewin, *Students Rush to Web Classes, but Profits May Be Much Later*, N.Y. TIMES, Jan. 6, 2013, at A1.

39 See, e.g., Steve Kolowich, *How EdX Plans to Earn, and Share, Revenue From Its Free Online Courses*, CHRON. HIGHER ED. (Feb. 21, 2013), <http://chronicle.com/article/How-EdX-Plans-to-Earn-and/137433/>.

40 Lal Jones-Bey, *Coursera and Your Career*, COURSEERA BLOG (Dec. 4, 2012), <http://blog.coursera.org/post/37200369286/coursera-and-your-career>.

41 See Caitlin Emma, *Online Courses Don't Live Up to Hype*, POLITICO (Sept. 18, 2013), <http://www.politico.com/story/2013/09/online-courses-failing-moocs-97031.html>.

42 Max Chafkin, *Udacity's Sebastian Thrun, Godfather of Free Online Education, Changes Course*, FAST COMPANY (Nov. 14, 2013), <http://www.fastcompany.com/3021473/udacity-sebastian-thrun-uphill-climb>.

yet more remote pedestal. MOOCs, to be sure, embrace the market. But their limited brand of “competition” involves oligopolistic information platforms struggling for preeminence.⁴³ It is a far cry from the looser self-assembly of networked organizational forms.⁴⁴ MOOCs are not the bazaar, where a thousand diverse voices jostle each other with a thousand messages; they are cathedrals, huge and expensive edifices where anointed bishops preach a Sunday sermon to the masses.⁴⁵

To appreciate how far from fully open MOOCs can be, compare them to their precursors. Take the Khan Academy, one of the inspirations for the Stanford AI course.⁴⁶ Its proprietor, Salman Khan, a hedge fund analyst, was tutoring his cousin in mathematics online. Other friends were interested in the tutoring, so he posted the videos of him talking while drawing on a digital whiteboard to YouTube. Interest in the videos took off—hundreds of millions of views by now—so he quit his job and focused on building out more videos. Salman Khan didn't have a business model, and still doesn't. He just makes his videos and shares them under a Creative Commons license.⁴⁷ Anyone can watch, anyone can share, and anyone can revise, reworking Khan's lessons or adding to them. You can watch them any time, in any sequence, as you need. Try taking one of Coursera's courses out of term, or try making your own modified version of an Udacity lecture.

Genuinely open education, in other words, is free in more ways than just its price to students. And it is all around us. MIT OpenCourseWare, launched in 2002, provides syllabi, lecture notes, videos, slides, and even full textbooks available for unrestricted reuse.⁴⁸ Today, the OpenCourseWare Consortium maintains a directory of more than 35,000 courses with “materials developed by experienced educators that are available for use, repurposing, and modification (including translation), in whole or in part, by everyone, everywhere in the world.”⁴⁹

The world of freely available education goes far beyond formal courses from well-known institutions. There is Vi Hart, who uses animated doodles to explain prime numbers, hexaflexagons, fractals, and other mathematical topics.⁵⁰ There is Mike Duncan, an amateur historian and stay-at-home dad who produced the History

43 See, e.g., Leckart, *supra* note 1 (“In 50 years, [Thrun] says, there will be only 10 institutions in the world delivering higher education and Udacity has a shot at being one of them.”).

44 See generally YOCHAI BENKLER, *THE WEALTH OF NETWORKS* (2006).

45 See generally ERIC S. RAYMOND, *THE CATHEDRAL AND THE BAZAAR* (1999).

46 Clive Thompson, *How Khan Academy Is Changing the Rules of Education*, WIREd, Aug. 2011, available at http://www.wired.com/magazine/2011/07/ff_khan/.

47 *Terms of Service* § 7.1, KHAN ACADEMY, <http://www.khanacademy.org/about/tos>.

48 MIT OPENCOURSEWARE, <http://ocw.mit.edu/index.htm>.

49 *About the OCW Consortium*, OPEN COURSEWARE CONSORTIUM, <http://www.ocwconsortium.org/about-ocw/>.

50 *Vi Hart*, YOUTUBE, <http://www.youtube.com/user/Vihart>.

of Rome podcast, hundreds of thousands of words over a five-year year run.⁵¹ There is Typophile, a discussion board for typographers, with an entire curriculum's worth of accumulated practical knowledge about fonts, typesetting, and design for anyone who wants to dive in.⁵² And there is Wikipedia, now almost certainly the world's leading source for information in student papers.⁵³ These are just a few of the ones that I, personally, have learned from. For each resource and community I have named, there are tens of thousands more I haven't.

One advantage MOOCs have over these various resources is structure: the “C” stands for “course,” as in “prescribed course of study.” When you listen to Mike Duncan's podcasts, you're on your own: no one will notice or care if you give up after a week. But a MOOC has a meaningful sequence of checkpoints and deliverables to help students tie themselves to the mast. There is something to this point, but the contrast between MOOCs and open educational resources should not be overstated. On the one hand, MOOCs' commitment mechanisms also often fall short. Nearly six out of seven of the students who started the Stanford AI course failed to finish, and when A.J. Jacobs signed up for eleven MOOCs for a *New York Times* experiment, he completed the “two courses with lighter workloads and less jargon.”⁵⁴ On the other hand, nothing prevents layering the checkpoints and other work of a “course” on top of open resources. Many teachers who integrate the Khan Academy into their classrooms customize how they draw on it for each student.⁵⁵ MOOCs bundle student supervision with course content, but in an unbundled world, even that union can be questioned.

The “openness” of these other creators and communities is of an entirely different order than the openness of MOOCs. It is the freedom to take content and build on it, remixing it into other educational resources. It is the freedom to dive in and out of topics, pulling them together in ways that don't follow the fixed rhythms of a college course. And, most of all, it is the freedom to join in, not just as a student but as a teacher, moving back and forth between learning and sharing what you have learned as you collaborate with others from around the world on their own diverse educational journeys. MOOCs are charismatic megafauna, but open education is an entire ecosystem.

51 THE HISTORY OF ROME, <http://thehistoryofrome.typepad.com>.

52 TYPHILE, <http://typophile.com>. For another example, see *References & Resources for LessWrong*, LESS WRONG, http://lesswrong.com/lw/2un/references_resources_for_lesswrong/.

53 WIKIPEDIA, <http://www.wikipedia.org>.

54 A.J. Jacobs, *Two Cheers for Web U!*, N.Y. TIMES, Apr. 20, 2013, at SR1.

55 See, e.g., Somini Sengupta, *Online Learning, Personalized*, N.Y. TIMES, Dec. 4, 2011, at B1; Adam Cotterell, *48 Idaho Schools “Flip The Classroom” and Pilot Khan Academy Online Learning*, BOISE STATE PUBLIC RADIO (Sept. 3, 2013), <http://boisestatepublicradio.org/post/48-idaho-schools-flip-classroom-and-pilot-khan-academy-online-learning>.

VI. Disruption

Let us take stock. MOOCs are truly groundbreaking on exactly zero out of five claims. In some cases, MOOCs replicate familiar features of existing institutions: what is JusticeX but the largest philosophy lecture course ever offered, the *reductio ad absurdum* of Justice? In some cases, MOOCs recapitulate longstanding projects to unbundle higher education: what are Coursera's certificates of completion but the cheapest credits ever sold? And in some cases, MOOCs drink from the wellspring of open educational resources: what was the Stanford AI course but a massive educational potlatch? The combination, perhaps, is novel—but these three strands pull in quite different directions: sustaining higher education, disrupting it, or questioning its assumptions entirely.

An ironic fact about MOOCs today—one of many—is that they are often mediocre and occasionally terrible.⁵⁶ This is sometimes taken as a proof that they are no serious threat to higher education, or as providing sufficient reason to oppose them. These claims miss a basic point about disruptive innovations, which are consistently worse in the near term than the older systems they disrupt. It is precisely this fact that keeps incumbents from embracing the innovation; if MOOCs today really were clearly better than classroom instruction, we would not be having this conversation. This does not mean MOOCs will stay worse, It does not mean they will get better. It just means that to criticize MOOCs is not to refute them. From the perspective of the students flocking to online courses, worse is better;⁵⁷ the value of personal instruction is far outweighed by its cost and inconvenience.⁵⁸

On the other side, however, the claim that MOOCs are good simply because they are disruptive is equally misguided. The Syrian civil war is certainly *disruptive*, especially for Syrians. Not all destruction is creative. It is entirely possible that if MOOCs capture a significant amount of the value in higher education, it will come not just at the expense of existing institutions but of society. From an unbundled point of view, cross subsidies are a tremendous inefficiency in higher education. For the student who just needs four more organic chemistry credits, everything else is a distraction, an unnecessary expense.

But bundling is the cornerstone of the modern research university. American higher education doesn't just educate a great many students in exchange for the great

56 E.g., Will Oremus, *Online Class on How To Teach Online Classes Goes Laughably Awry*, SLATE (Feb. 5, 2013), http://www.slate.com/blogs/future_tense/2013/02/05/mooc_meltdown_coursera_course_on_fundamentals_of_online_education_ends_in.html.

57 See generally Richard P. Gabriel, *The Rise of Worse Is Better*, available at <http://www.dreamsongs.com/RiseOfWorseIsBetter.html>.

58 See Clay Shirky, *Napster, Udacity, and the Academy*, SHIRKY.COM (Nov. 12, 2012), <http://www.shirky.com/weblog/2012/11/napster-udacity-and-the-academy/>; Clay Shirky, *Your Massively Open Offline College Is Broken*, THE AWL (Feb. 7, 2013), <http://www.theawl.com/2013/02/how-to-save-college>.

deal of money it takes in; it also generates a great deal of research and provides a stabilizing and humane institution in society, one dedicated to the long-term flourishing of humanity. It does so by linking these three missions—teaching, scholarship, and service—and vesting them in the same faculty. They are linked for a reason, and we should not lightly sever those bonds.

.When the Merchants of MOOCs invoke “openness,” it merely clouds the issue. It prevents us from seeing clearly how little MOOCs offer—and how much more they could. I am hard pressed to think of a better example of the corrupting influence of the venture-capital mindset on our perceptions of what is valuable in an idea. From the Merchants of MOOCs’ point of view, the “openness” that supposedly turns MOCs into MOOCs is equal parts pricing strategy, inconvenience, and rhetorical cover.⁵⁹ It legitimates the dismantling of the academy as an autonomous and public-serving institution in society, while at the same time co-opting free and open networked education into a private profit-making scheme

VII. The Future

Just because something is disruptive, does not mean it will succeed. Coursera, Udacity, and edX may all crash and burn in a pile of flaming millions, just like Fathom before them. But if they do, it will not end the challenge that open education poses to universities—or the opportunity it offers. Do not confuse the success of a MOOC, or a MOOC company, with the success of the educational ecosystem around them. Indeed, in a world of open education, it is entirely possible that everyone will be educated even as no one makes any money at it. Profits are not the only sign of success; not every loss is a failure.

If universities are in the encyclopedia business, then perhaps MOOCs are Encarta: online, cheap, popular—and doomed. Even now, the educational version of Wikipedia is assembling itself in the less well-funded shadows of the Internet. On the day we are able to see it whole, the sight will be more inspiring and more terrifying than any MOOC.

What is exciting about MOOCs is not the scale, or the online delivery, or any of the other features usually cited in describing them. It is that initial electric thrill of the Stanford AI course: *what if education were available, free, to anyone in the world who seeks it?* It is the democracy of ideas of Open CourseWare and Vi Hart and the History of Rome and the Khan Academy—that anyone, anywhere, with knowledge to impart or in search of it is welcomed with open arms. These universal, inclusive ideals are at the heart of the academic mission.

I would have thought that the great truth of the Stanford AI course was that a

59 See generally Aaron Bady, *The MOOC Moment and the End of Reform*, THE NEW INQUIRY (ZUNGUZUNGU BLOG) (May 15, 2013), <http://thenewinquiry.com/blogs/zunguzungu/the-mooc-moment-and-the-end-of-reform/>; Aaron Bady, *Tree Sitting*, THE NEW INQUIRY (ZUNGUZUNGU BLOG) (Feb. 12, 2013), <http://thenewinquiry.com/blogs/zunguzungu/tree-sitting/>.

great many people want to know more about AI, and that when we say “tuition be damned” it is actually not hard at all to reach them. So I would have thought that we should be looking for ways to subsidize MOOCs, rather than for ways to monetize them. What stands in need of disruption is not the system of higher education but rather the far larger system of exclusion from higher education.⁶⁰ How to preserve what is best about the academy while better opening its doors to the world is a difficult question. But out of all the questions posed by the Merchants of MOOCs, it not the one most worth answering?

60 See Aaron Bady, *Questioning Clay Shirky*, INSIDE HIGHER ED. (Dec. 6, 2012), <http://www.insidehighered.com/views/2012/12/06/essay-critiques-ideas-clay-shirky-and-others-advocating-higher-ed-disruption>.