



## SEMINATOR: LEARNING CONTENT CREATION

The faculty roles of content expert and learning content author, and the preeminence of the textbook as of the form and measure of learning content, are being disrupted by publishers and others moving into new roles and creating new learning content formats. Open Educational Resources (OERs) are also poised to take a share of the learning content market if they hit stride. Student choices and behaviors are, and will continue, shaping learning content. Student performance is the emerging driver that all content creators must successfully address.



### Keypoints:

- For a century, faculty members' work [as expert,] to vet research and to establish disciplinary norms has been an indispensable resource.
- Digital technology has diluted those roles and blurred the distinction between faculty's local creation of content for their courses and the globally shared resources of commercial publication.
- The textbook's value proposition of authority, accessibility, and affordability sustained the college textbook in the past century, and it remains the mainstay of high-enrollment introductory courses. But assorted forces are picking apart that kingpin status.
- The most significant response to the cost crisis has been the rise of the open educational resources (OER) movement—the basic proposition of which is to restore textbook affordability by socializing production costs and offering materials free or at radically reduced prices to end consumers.
- More sophisticated, “smart” digital materials have the potential to marginalize faculty content creators. Creating higher value-added adaptive learning content and gaining greater control over the education value chain are prominent among the publishing industry's solutions to the erosion of the print textbook market.
- It seems likely that professorial expertise will play a less dominant role in formal learning content creation in coming years. From below, faculty authors will face competition from empowered amateurs and “edupreneurs” determined to democratize learning access or re-direct profits. From above, publishers will turn to platforms and products they control.
- **Key Trends:** Price pushback, declining course materials sales, OER gathering funding and political support, digital educational content gains ground, zero-cost distribution channels, winner-takes-all economics, and proliferation of content creators

# Mapping the Learning Content Ecosystem

## SCORECARD

SEMINATOR: Learning Content Creation



### Supplier Power

- Rise of superstar faculty/Winner-takes-all
- Most use open channels + social networks
- Nature of learning content is changing
- Slow shift to emphasis on content curation: integration, contextualization
- Publishers developing instructional design skills
- Intellectual Property gets blurry—advantage to publishers



### Buyer Power

- Power is diffused, but price sensitive + social media savvy
- Value buyers + Convenience buyers
- Growing preference for textbook rental
- Students reading less
- Different attitudes toward sharing, intellectual property, etc.
- Gone digital, but like print textbooks



### Rivalry Level\*: 4



Competition is intense among and between both academics and publishers to be creator/controller of content.



### New Entrants

- Possible shift to campus-wide licensing
- Possible rise in academic-content-for-hire
- Social networks + Flashnotes-type e-marketplaces make it possible to bypass publishers and distributors
- OER finds voice



### Substitutes

- Publisher-created content
- Informal content (e.g., YouTube, Khan Academy)
- Content exchanges
- Sharing economy (think Uber for textbooks)

\*Rivalry is an indication of competition in the segment from 1-lowest to 5-highest; both among current players and between them and new entrants.



## Introduction

Who creates learning materials? For a century, the learning content ecosystem has relied heavily on college and university faculty as content makers. Faculty members' subject matter expertise has been an indispensable resource, as has their domination of the organizations that vet research and establish disciplinary norms. For faculty themselves, the learning materials marketplace provides an attractive way to supplement modest academic incomes.

But change is coming to the faculty role. Digital technology has muddled what was once a clear distinction between local creation of content for one's own courses and the globally shared resources of commercial publication. At the same time, it has diluted the professional academic's authority as subject matter expert. Even allowing for a high noise-to-signal ratio, the Internet provides an incomparably richer range of knowledge and expertise than any pre-digital university could accumulate. Prominent in the network mix are "edupreneurs" who are inventing ways to redesign or bypass the formal higher education system, becoming content creators in their own right.

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Formal publishing contexts, too, face trends that dilute the faculty role as the default and dominant author of educational content. As interactivity and educational theory are built into digital course materials, elements other than content expertise—including platforms, design, and pedagogical rubrics—become relatively more important to the content value proposition and assume a larger proportion of production costs. That trend argues for treating the subject matter expert less as a partner in creating intellectual property than as a contractor doing work for hire. Like editors, graphics designers, and journalists, faculty content creators increasingly find themselves joining a crowded "gig economy" that is long on flexibility but short on reliable returns.

## Content Creators: History, Mission, and Value Proposition

The modern model for creating educational content arose from a confluence of forces: the rise of the research university, the democratization of higher education, and the ascent of a mass publishing industry. Prussia's higher education reforms in the early 19<sup>th</sup> century formalized training in research and established the Ph.D. as the definitive credential for academics teaching a modern curriculum. A century later, the American system that hybridized the Oxford-Cambridge "college" system with the German research institute had become the international norm.

Aided by the workforce demands of a modernizing economy and growing hopes that disinterested expertise could shape public policy, colleges and universities entered a golden era. Their executives ruthlessly disrupted educational competitors and pushed professions that had historically required little or no academic preparation to redefine credentials around academic credits and degrees. Rapid growth made higher education hungry for up-to-date course materials appropriate to increasingly large and diverse student audiences. Professional faculty became the default source for creating this content, displacing the clerics and gentleman scholars who had often authored the textbooks of the previous century.

The new textbook helped marry the elitist research ethic to the large-scale production of educated worker-citizens. Though never granted the same professional stature as original research, the textbook became a way for an ambitious scholar or scientist to influence a far larger audience than cutting-edge research. Demanding great powers of synthesis and explanatory skill, textbook authorship at its best embodies a democratic commitment to making challenging material accessible without acquiring a library of specialized works. This value proposition of authority, accessibility, and affordability sustained the college textbook in the past



century. Successful textbook authors, like the economist Paul Samuelson and the art historian H. W. Janson, introduced millions of students across multiple generations to the basics of their disciplines.

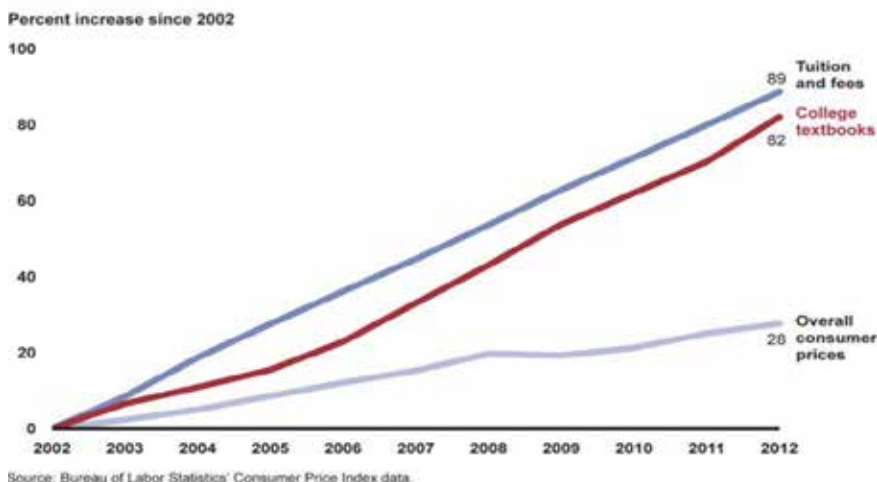
They also earned fortunes. Though they may be exceptions and not the rule, many academics serve as author for course materials as an opportunity to monetize their mastery of arcane subjects. A textbook that has accumulated a critical mass of adoptions can produce something like a lifetime revenue stream that delights authors and publishers alike. These reliable revenues have provided a rationale for investment in rich graphics, frequent new editions, and the production of related supplemental materials. And while publishers bear the cost of many first-edition-only investments, faculty can farm out some of their “investment” (in time and talent) to graduate students under their direction, spreading the largesse to the greater educational ecosystem.

Today the textbook remains the mainstay of high-enrollment, introductory college and university courses. But as with so many industries in the digital age, assorted forces are picking apart mutually reinforcing strands that once seemed stable.

## Disruption of Educational Content Creation

Factors disrupting the education content creation process have arisen both from the internal dynamics of education publishing and forces external to publishing and higher education. Chief among the former is the eightfold increase in textbook prices since 1978. Textbook prices rose at triple the rate of the consumer price index between 2002 and 2012 (see Figure 6).<sup>39</sup> Despite higher prices, total textbook revenues have been eroding, partly due to used and rental options but as a result of growing purchase student price sensitivity. NACS data shows that 28% of students chose not to acquire at least one required course material in fall 2014.<sup>40</sup> Another study reports that nearly two-thirds of students have decided against buying a textbook at one time due to cost.<sup>41</sup> The situation has inspired a rare degree of accord in the higher education culture wars. For the left-leaning Student Public Interest Research Groups, the textbook marketplace is a “monopoly” with “negative impact on student success;” to the right-leaning American Enterprise Institute, it is a cartel-driven “bubble” that “will likely suffer the same fate as the traditional encyclopedia when it was challenged by Wikipedia.”<sup>42</sup>

Figure 6 – Relative Increase in New College Textbook Prices, 2002-2012



<sup>39</sup> Mark J. Perry, “The college textbook bubble and how the ‘open educational resources’ movement is going up against the textbook cartel,” *AEI Ideas*, December 24, 2012.

Available at: <http://www.aei.org/publication/the-college-textbook-bubble-and-how-the-open-educational-resources-movement-is-going-up-against-the-textbook-cartel/>; U.S.

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<sup>40</sup> NACS’ OnCampus Research® *Student Watch™: Attitudes and Behaviors toward Course Materials Fall 2014*. NACS Foundation, 2015.

<sup>41</sup> Ethan Senack, *Fixing the Broken Textbook Market: How Students Respond to High Textbook Costs and Demand Alternatives*. U.S. PIRG Education Fund and The Student PIRGs, 2014, <http://www.uspirg.org/reports/usp/fixing-broken-textbook-market>.

<sup>42</sup> Ethan Senack, *Open Textbooks: The Billion-Dollar Solution*. The Student PIRGs, 2014, <http://studentpirgs.org/reports/sp/open-textbooks-billion-dollar-solution>.



For content creators, the most significant response to the cost crisis has been the rise of the open educational resources (OER) movement. The basic proposition of OERs is to restore textbook affordability by socializing production costs and offering materials free or at radically reduced prices. Generous foundation funding and a measure of public support exemplified by the state of California's decision to develop a library of OER textbooks have given the movement a foothold and inspired OER-oriented startups. Though it clearly cannot offer content creators the royalties of traditional publishing, OER does have a development funding stream and the potential to capture large educational markets, possibly by legislative or campus fiat. Aided by a communitarian ethic common in higher education and by the increasingly evident alienation of students (and possibly faculty adopters) from traditional textbook sources, OER has the potential to attract a critical mass of faculty contributors. If less financially rewarding than the commercial route, it still provides a road to disciplinary influence and the satisfaction of serving educational goals.

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Another disruptive factor is the growing digitization of educational content. At the simplest level, instructors themselves "publish" much more of the mundane learning content they create than they did in pre-Internet times, simply by using digital formats and posting to the LMS or a website. This crowdsourced, instructor-orchestrated content feed reduces the need for formally produced learning materials of the type that faculty themselves have historically authored or edited.

More sophisticated, "smart" digital materials also have the potential to marginalize faculty content creators. Creating higher, value-added adaptive learning content and gaining greater control over the education value chain have been prominent among the publishing industry's solutions to the erosion of the print textbook market. Much as the rise of online education underscored a skills gap among instructors who thoroughly understood the classroom but not the online environment, new digital learning materials add layers of design, technology, and pedagogical theory to subject matter content.

In products like McGraw Hill Education's Connect, the Pearson MyLabs, and Wiley's WileyPLUS, proprietary adaptive learning technologies combine with publisher-owned content and learning analytics to create a complex, data-based learning environment. Such products depend heavily on publisher expertise and are far less of an author performance than the traditional print textbook or its digital counterpart. As a result, publishers may move to acquire subject matter expertise—which is, after all, largely commoditized at the level of the introductory course—as work for hire, meanwhile treating platforms and pedagogy as the key areas for investment and competitive differentiation.

This assertion of publisher prowess into the realm of content creation does not stop with course materials. Several publishers now design and market complete white-label online courses, sharing tuition revenues with institutions and all but eliminating the faculty role in course design. The OER movement has similar ambitions, exemplified by Carnegie Mellon's Open Learning Initiative.

But such publisher forays still put the institution at the heart of education. Not so with a fast-growing body of educational startups that supplement, bypass, or even displace traditional higher education. MOOC providers like Coursera and edX partner with traditional institutions for course content but often take a more Spartan approach to learning materials, leveraging open resources or relying on short video lecture "chunks." Ventures like Khan Academy and lynda.com offer sophisticated but relatively informal learning content aimed at a generation for whom video may be a more natural medium than print. Still more informally, a galaxy of YouTube personalities contributes amateur but often highly expert instruction on every subject from accounting to classical oboe. On the Internet, nobody knows you're not a Ph.D.





Taken as a whole, it seems likely that professorial expertise will play a less dominant role in formal learning content creation in coming years than it has in the past. From below, faculty authors will face competition from empowered amateurs and “edupreneurs” determined to either democratize learning access or re-direct profits. From above, publishers who once saw gold in an eminent author’s name will look for it in platforms and products they control. As is common in markets undergoing disruption, faculty authors may console themselves that traditional products remain the most popular and profitable, and may dismiss innovative products as immature and outside the mainstream. If current trends continue to play out, however, short-term work for hire and OER altruism will loom larger in faculty content creation options.

## Competitive Dynamics

### Key Trends

- **Price pushback**—The eightfold increase in the price of textbooks over the last generation has stimulated both politically and economically significant responses. Textbook affordability legislation in several states, additional proposed federal legislation, and the alienated student buyers empowered with growing alternative acquisition options are all putting pressure on revenue streams that have historically permitted attractive royalties to content creators.
- **Declining course materials sales**—Average student spending on course materials declined from \$701 in 2007-08 to \$638 in 2013-14.<sup>43</sup>
- **OER gathering funding and political support**—While faculty remain largely (75%) unaware of OER, philanthropies keen to promote reform in higher education—government agencies like the NIH, NSF, Department of Labor; legislators; campus administrators; and an energetic minority of faculty supporters—are promoting or producing a new generation of educational content. The resulting resources are “free” both in terms of cost and in the user’s freedom to edit or repurpose them. Today’s pilot OER projects typically enjoy enough funding to cover creation costs and offer content creators the chance to take part in an attractive reform benefitting students.
- **Digital educational content gains ground**—Digital textbooks, representing a little more than 20% of purchases in 2010, approached 40% in 2013.<sup>44</sup> Publishers are investing in digital learning platforms, adaptive learning technologies, and analytics. These heavily capitalized systems depend on learning experts and instructional technologists and designers, and may reduce publishers’ relative dependence on faculty subject matter experts.
- **Zero-cost distribution channels**—Free or inexpensive social media sites and sharing tools permit anyone to communicate with the Internet-enabled world. Resources like Facebook, Scribd, YouTube, Twitter, and blogging tools allow content creators to sidestep traditional academic and publishing industry channels and still reach potentially huge audiences.
- **Winner-Takes-All Economics**—The massification and globalization of learning content and delivery through MOOCs and other means is raising the stakes in formal publishing. Higher stakes fuel an impulse—as in Hollywood—to put big-name faculty “on the label.” The winner-takes-all nature of the publishing reward system encourages a proliferation of content creators who instead use informal avenues such as YouTube or OER.
- **Proliferation of content creators**—Private concerns offering educational videos, tutorial services, free online non-credit college courses, and educational content discovery and aggregation services are generating easily obtained content that supplements, and in some cases displaces, traditional textbooks and other materials. These content creators address consumers directly, often disdain traditional academic credentials, and have little interest in incumbent educational content business models.



**NACS Resource:** NACS Archived Webcast: “How Digital Technologies & OERs are Disrupting Higher Education,” available in [The Hub](#) for NACS members (NACS member login required)

<sup>43</sup> NACS’ OnCampus Research® Student Watch™. Available at: <https://www.nacs.org/research/industrystatistics/higheredfactsfigures.aspx>.

<sup>44</sup> Book Industry Study Group, “Making Information Pay for Higher Education,” MIPHE14, January 13, 2014.



## Rivalry within the Sector

Academics is an intensely competitive business rife with job insecurity and fierce struggles over limited resources. According to the New Republic, “the republic of learning and letters works by squabbling—especially bitter squabbling, Henry Kissinger used to say—because the stakes are so small.”<sup>45</sup> **At the junior level, it is a buyer’s market:** according to the National Science Foundation, unemployment of new Ph. D’s. exceeds 20% in humanities, natural sciences, and math alike.<sup>46</sup> Even established academics face declining public support for higher education. Colleges and universities have no trouble attracting exceedingly well-qualified staff for low-paid, insecure, part-time adjunct positions. Under these circumstances, a typical royalty rate of around 15% is a powerful incentive to consider textbook publishing.

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Despite the evolving winner-takes-all nature of the market, **we can expect academics to continue to compete intensely for the chance to create learning content.** However, with student spending on course materials in decline, and publishers pursuing a future in which subject matter content may represent a smaller proportion of their value proposition, authors will have less royalty leverage. Some would-be faculty textbook authors will adapt to the increasingly team-based nature of course materials “manufacture,” and some will not. And grants for developing OERs will replace only a fraction of the traditional revenues for authors. Faculty authors may resort to the “gig economy” of short-term work for hire mediated by auction-like Internet services, a parallel to what has already happened with adjunct instruction, and a fate familiar to many of the editors and graphics artists with whom authors work.

**Rivalry between publishers is fierce as well,** though of a different character. Five big players control more than 80% of the U.S. textbook market, leading critics to accuse them of oligopoly. Yet as we have seen, this group seems to have declining power over consumers. The most important competition going on between the major publishers is the race to find the digital platform and related courseware that will revive waning demand and generate healthy margins. It is, in effect, a competition over re-invention rather than a classic contest to seize market share from other players. As with other media businesses undergoing re-invention, there is no guarantee that *anyone* among the incumbents will find the magic formula.

Meanwhile, entrepreneurs and motivated amateurs continue to flood the Internet with cheap or free educational content, though few alternative content creators seem to have found a path to business sustainability. Khan Academy, for example, remains dependent on foundation funding. Yet their lean cost structures and agility allow these innovators to reach potentially huge audiences on modest revenue streams. Unlike the publishers’ contest, this is a highly diverse competition pitting radically different approaches against one another, a battleground prone to quick tactical changes and quick failure. Disruption theory would predict that this hothouse atmosphere will generate innovation more effectively than the better-funded but more constrained traditional publishing sector.

## Bargaining Power of Suppliers

Thanks to institutional dynamics (such as tenure) that trump market realities, higher education has never successfully constrained the supply of academic expertise even in the face of oversupply. The academic labor makes clear that in most fields there is no shortage of people acquiring advanced credentials in academic subjects—and therefore no shortage of institutions willing to supply that training. **Editorial and production services remain an important publisher value-add that can be leveraged to attract good authors.** Increasingly, however, authors enjoy other options. Lean direct-to-consumer publishing models like Amazon’s self-publishing service provide a low-cost, high-royalty alternative for authors who have some market pull,

<sup>45</sup> *The New Republic*, “A Humanist at the Humanities,” 1977 August 20 and 27, Page 8, Column 2, The New Republic, Inc., Washington, D.C.

<sup>46</sup> National Science Foundation Survey of Earned Doctorates 2012.



while open educational resources provides a go-to-market model for those who have less. YouTube is a still simpler alternative. While authors may prefer not to be reduced to its work-for-hire status themselves, the gig economy offers efficient mechanisms for securing editorial, design, and marketing services directly. This makes self-publication a more feasible option.

For publisher-based content creation, **the current strategy of building platforms, courseware, and academic services is making content creators reliant on technologists, pedagogy experts, data analysts, simulation developers, and others. This strategy forces publishers to source talent from more competitive labor markets than those for authors and traditional editorial staff.** This raises production risk and cost in order to create complex new products whose market appeal is far from proven. This position between the rock of eroding revenues and the hard place of rising costs has brought some of the biggest names in publishing low. Pearson recently laid off 10% of its global workforce, and Cengage emerged from Chapter 11 bankruptcy in 2014 with plans for \$100 million in spending cuts. Here, too, cost pressures may push content creation—including technical services—further into the gig economy.

### **Threat of New Entrants**

Nothing about higher education learning content is more striking than the willingness of new parties to join in the game. **The very instability of the market is attractive to alternative providers** who are sure they can re-invent the business with digital-only formats (Flat World Knowledge), OERs (OpenStax and Lumen Learning), adaptive learning technology (Knewton and assorted mainstream publisher initiatives), free mass-market online courses (Coursera, edX, Academic Earth), online tutorials (Khan Academy, lynda.com), and many other strategies including outright piracy. Meanwhile, the supply of new Ph.D.'s who hope to climb an ever taller tenure ladder remains steady even as the job market goes from bad to worse. Undoubtedly some of these will be drawn to content creation in whatever form it assumes.

Though it is hard to envision a major publishing house not now involved in the higher education market choosing to enter it in a big way, or a highly capitalized entrepreneurial entrant dedicated to a traditional view of the business, learning content creation is drawing new entrants ranging from the amateur jazz enthusiast with a YouTube channel to well-financed Silicon Valley startups.

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### **Bargaining Power of Buyers**

Perhaps the most fundamental challenge for those wishing to create commercially publishable learning content is contending with the explosion of buyer options. The standard narrative of inflated textbook prices and overwhelming publisher power does not account for the student-reported decline in spending on course materials. This is a complex phenomenon worthy of a deeper look (see "Content Consumers"), but it is worth noting here that among the three in 10 students who did not obtain required course materials in NACS' Student Watch™ Spring 2014 study, the most common reason given was not price, but a perception that the material wasn't needed. Such students often rely on course notes or borrowed materials, both practices that are facilitated by digital formats. One in eight acquires materials from "unofficial," likely pirated sources. Powered by rental options, the availability of OERs, and savvy use of the Internet, student purchase avoidance is on the rise, and is a major reason educational publishing is attempting re-invention.





## Threat of Substitutes

As declining student spending figures show, **educational content faces not the threat but the reality of substitution**. The convergence of previously separate print, audio, and video formats; zero-friction sharing of digital materials; interactivity; and abundant opportunities to pirate materials or discover free alternatives all undermine the traditional textbook model. While print textbooks remain today's favorite course material format of students and faculty adopters alike, digital materials are rising in popularity, and most faculty believe the majority of course materials will be digital in five years.<sup>47</sup> Publishers hope to change the learning content paradigm with adaptive platforms, while OER producers believe they can produce a high-quality, low-cost alternative to the commercial textbook. Nearly everyone agrees that the prospect for growth in traditional textbooks is dismal. While the failure rate of today's extraordinary variety of alternative solutions will undoubtedly be high, it will take only a few proven successes to seriously undermine the already shaky predominance of the textbook.

## Key Players

**Pearson, Cengage, McGraw-Hill Education, and Wiley** have all invested heavily in digital formats and in the online learning environments that each hope these new formats will reinvigorate the learning content value proposition with adaptive learning technologies, data capture, and analytics. Aimed as much at investors as at educators, these initiatives go far beyond the simple conversion to digital formats. They imply a major culture shift from seeking success in long-term steady title adoption by faculty to seeking it in institutional licensing of products that are active in pedagogy and are selected by academic executives. As publisher CEOs frequently tell shareholders, they aim to become technology and educational services companies accustomed to disruptive change and able to leverage it.



**NACS Resource:** "Academic Content Licensing Consolidated List of Considerations," available in [The Hub](#) (NACS member login required) or upon request to [education@nacs.org](mailto:education@nacs.org)

It is ironic that much of the funding for the publishers' main nemesis in the textbook wars, the **OER movement**, comes from the technology fortunes that fuel the Gates Foundation and Hewlett Foundation. With their backing, and more recently with funding from states including Washington and California, the OER movement has begun to produce a library of textbooks, usually digital in format and aimed at popular introductory courses. The California initiative is of particular interest. Funded with \$5 million in state money and matching grants from Gates and Hewlett, it seeks to "develop or acquire" a set of 50 lower-division textbooks and a digital repository providing access. Additional OER initiatives include Rice University's OpenStax initiative and Lumen Learning, a startup that seeks to replace textbooks with an inexpensive per-student OER licensing fee. OER adoption and awareness is currently low in academic rank and file. To be successful, sustainable players in the long term, OER providers will have to create business models that live on after the foundation grant dollars dry up.

**Alternative online educational content providers** cover too broad a spectrum to be easily characterized by a few key players. One standout is Khan Academy, another Gates-funded entity that evolved from the informal YouTube math tutorials of its founder Salman Khan to an alternative education powerhouse that makes more than 6,500 videos available to a worldwide audience. MOOC innovators Coursera, edX, and Academic Earth collectively offer hundreds of free courses developed by college and university faculty. YouTube may rightly be considered a force in higher education, providing worldwide access to many formal academic lectures and a remarkable range of passionate amateur teachers. Wikipedia, much to the chagrin of faculty, is an enormously influential source for information and is emblematic of the way that digital technologies and crowdsourcing can supplant more authoritative sources.

<sup>47</sup> NACS faculty survey, 2014.



Finally, it's important to keep in mind that much of what is happening in learning content creation is driven by **student choices and behaviors**. Student preference for print is keeping the textbook alive, yet students' rising price sensitivity and awareness of alternative resources has to be a real cause for publisher concern. Likewise, high dropout rates and slow progress to degree in some sectors of higher education are driving personalization and analytics into learning content. The next generation of content creators will have to confront student performance much more directly than those of the past.

## Technologies and Innovations to Watch

- Adaptive learning systems allied with student performance data capture and related analytics;
- Educational content aggregation/course builder sites;
- Spread of educational and publishing services to the "gig economy;"
- Online self-publishing services with embedded production tools (e.g., Amazon CreateSpace); and
- OER initiatives.



## Critical Questions: Learning Content Creation

1. Are there "star power" faculty authors on your campus? What percent of your faculty are authoring their own course materials to supplement purchased course content? In place of it?
2. What percent of adoptions does the campus store manage (the market share)? What learning content are faculty using for which they do not submit an adoption request to the campus store?
3. Are there faculty using print custom learning materials? Digital custom? What percent of each? What is the store's involvement with these materials (e.g., sales, copyright clearance, compilation, curation)? Are there services the store could be offering to assist faculty and provide more choice to students?
4. Are any campus departments or faculty involved in the creation or use of MOOCs on campus? What course materials are being used for the course? Where are they being obtained? How about the more common distance learning courses?
5. How knowledgeable is the store staff on the adaptive digital learning products/platforms available? Can/does the store provide first-level information and support to faculty and student users?

## Further Readings

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