The traditional U.S. colleges and universities are at the center of a higher education system that is being disrupted by consumer, funding, regulatory, and competitive business model forces. The distribution of power is shifting from incumbent players to different long-time stakeholders and new entrants. As a central and substantial element of the learning content ecosystem, colleges and universities and the changes they are undergoing must be understood and monitored.

Key Points

1. Higher education institutions have occupied the central position in the learning content ecosystem for more than one thousand years.

2. The physical form of the modern college and university has not changed tremendously since the 12th century.

3. However, today’s landscape consists of a diverse mix of public, private, independent, religious-affiliated, and-grant, research-intensive, two-year, four-year, non-profit, for-profit, online, and on-ground institutions whose missions, structures, business models, and economics may all vary widely.

4. Changing student preferences, growing budgetary and regulatory pressure on public universities, a softening of enrollments nationwide, rising concerns of rating agencies, destructive tuition discounting among many private non-profits, and a steady U.S. slide in world ranks in key measures of success like graduation rates, lead many to conclude that U.S. higher education is ripe for disruption and ultimate transformation.

5. Characterizing all colleges and universities as “perpetuities” distracts from the pressing existential challenges many particular institutions may soon face. Astute college store leaders need to understand the financial health and sustainability of the institutions they support.

6. A short list of potent trends that all campus leaders should be aware of includes:
   a. Cost disease—the rising “sticker price” of a college or university education
   b. Cost shifting—the shift of higher education cost burden from states to students
   c. Slow enrollment growth—a mature teaching and learning business for which increasing participation rates is slow and difficult
   d. Growing pressure to standardize and demonstrate results
   e. Rapid adoption of online education
   f. Venture philanthropies/private equity firms leading a “siege of academe”
Supplier Power
- Power of state (and potentially federal) government as funders is rising
- Cost of new faculty hires in STEM is rising
- Cost of library materials is rising
- Power of faculty and many publishers is declining

Buyer Power
- Bargaining power of students, overall, is weak but rising.
- Students at tuition-dependent institutions have considerable bargaining power
- Greater articulation provides more buyer choice
- "Hot" employers like Google de-emphasize the college degree
- Do-it-yourself preference may lead to free agency among some buyers (students)

New Entrants
- Overall threat of new entrants is low, but include:
  - MOOCs (e.g., Coursera, EdX)
  - New models such as Minerva and Pearson College
  - Western Governors University

Rivalry Level: 3
- Competition between segments can be intense, with a winner-takes-all-competitive character.

Substitutes
- To extent primary purpose of college is to secure earning potential, alternative avenues of lifetime employment are a threat
- No potent substitute for the "life experience" or social network development components
- Threat of existing educators expanding their markets is high
- New models like MOOCs challenge some important revenue streams
- Expanded credit transfer enhances substitutability; certificates may substitute for degrees in some arenas

*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.
Central Position in the Learning Content Ecosystem

Our analysis of the higher education learning content ecosystem begins with an analysis of the college and university. This seems natural because today and for more than one thousand years, higher education institutions have occupied the central position in the learning content ecosystem. They are central in the ecosystem because they:

- Aggregate the expertise (faculty) to create learning content and incentivize content creation via the promotion and tenure processes;
- Supply commercial publishers with the faculty for editorial boards. Such faculty vet learning content for authenticity, originality, rigor, accuracy, and overall academic merit;
- Manufacture and distribute a great deal of learning content via self-operation of academic journals, university presses, consortia, and affiliated learned societies;
- Supply commercial and non-profit content publishers with academic reviewers and reviews. Journal “brands,” reviews, and academic citations fuel the reputations and prices that learning content may command in academic markets;
- Aggregate demand for learning content via academic libraries and through curriculum creation, faculty content adoption, graduation requirements, and simply by assembling large numbers of learners in coherent academic disciplines and programs;
- Build, license, and curate large repositories of learning content;
- Provide and support the classroom, IT, and other infrastructures that facilitate the flows of digital learning content and the management of learning content intellectual property;
- Publish directly—via University Presses, journals, Open Education Resources (OER), MOOCs, and others—a significant portion of learning content;
- Manage the people (faculty) and content selection processes that align the presentation (scope, sequence, level) of knowledge in specific learning content with the skill levels, styles, strengths, and/or limitations of their students;
- Provide retail outlets for the efficient matching of students with their required learning content and for maximizing the institution’s purchasing leverage;
- Evaluate their students’ levels of mastery of, or proficiency with, the information presented in learning content; and
- Certify a student’s domain knowledge proficiency, critical thinking, and other skills and knowledge at socially—and professionally—accepted levels of competency (e.g., courses, certificates, and associate’s, bachelor’s, master’s, or doctoral degrees).

Colleges and Universities: History, Mission, and Value Proposition

Universities are among the longest-lived institutions on the planet. For more than 1,000 years, universities have served as the physical places where students and teachers could be assembled along with specialized learning content (libraries, museum collections, archives, etc.) and facilities (e.g., lecture theaters, surgical theaters, observatories, supercomputers, high performance networks, art studios). Colleges and universities have not only survived a millennium of economic challenge, regime change, revolution, natural disaster, and war, they have prospered. In part, they have prospered because:

- They are well understood transmitters of democratic values, critical reasoning skills, and tolerance.
- They often serve as incubators, arbiters, and transmitters of culture.
- They are founded on a shared mission of searching for truth and on independence from political intrusion into inquiry and discourse.
- Their design facilitated the preparation of skilled technocrats to support modern agriculture, industry, commerce, government, and the military.
- Intellectual capital—the power of invention and intellect—has now outstripped land, labor, and capital as the chief factor in producing personal income and the “wealth of nations.”
- They prepare both young adults and transitioning older adults with effective pathways into the workforce and full civic participation.
The prosperity of U.S. higher education is extraordinary. In 1900, only two of every 100 U.S. 18- to 24-year-olds attended a college or university. And of course, very few of these turn-of-the-century students were women or non-whites of either gender. By 1930, seven of every 100 attended a college or university. By 1949, this number had risen to 15 out of every 100 18- to 24-year-olds with women representing 30% of all those enrolled. The GI Bill and the end of World War II changed everything. By the 1950s, 24% of U.S. 18- to 24-year-olds attended college, and by 1969, this number had jumped to 31%. In 2011, 42% of all U.S. 18- to 24-year-olds were enrolled as undergraduates at a college or university that reported data to the U.S. Department of Education. This is more than 10 million young people. Women now represent more than 60% of the undergraduate enrollments in U.S. institutions. And young undergraduates—the so-called “traditional” students—now comprise only a portion of U.S. college and university enrollments. More than 16 million full-time and part-time undergraduates of all ages attend a variety of U.S. two-year and four-year colleges and universities.

The success of U.S. higher education goes far beyond enrollment growth. By nearly all accounts and popular measures, U.S. colleges and universities dominate the quality rankings of world universities. In terms of scholarly content, the top 10 U.S. university libraries collectively hold more than 100 million volumes. While spending estimates vary widely, students enrolled in U.S. colleges and universities spend somewhere between $11 billion and $16 billion on course materials per year.

The physical form of the modern college and university has not changed tremendously since the 12th century.
Often isolated (or insulated) behind gates, the iconic campus comprises a network of instructional spaces, residence halls, administrative offices, business services, dining halls, recreational facilities, and academic commons facilities (libraries, museums, planetariums, etc.) connected across private open spaces and parking lots. Of course the nature of the buildings themselves and the amount and character of the connecting spaces varies widely based on mission, funding, history, location, and other factors.

Today’s landscape consists of a diverse mix of public, private, independent, religious-affiliated, land-grant, research-intensive, two-year, four-year, non-profit, and for-profit institutions.

The mission of colleges and universities has evolved over the millennium. Originally chartered in the West by popes and kings, the modern university served first to promote Catholic theology and later to create a literate class that could oversee the administration of estates, treasuries, and courts. By the 18th century, universities held independent charters or charters from a wide variety of religious denominations and took on the broader task of preparing gentlemen of the high social classes for good marriages and easy mobility within their society’s upper echelons. The pressing demands of the industrial revolution led to the granting of lands to build “public” universities designed to promote mining, agricultural, commerce, and the “industrial arts.” The modern research university was a U.S. invention. It blended the Oxbridge organization of residential colleges with the German research institute’s organization of academic disciplines. No sooner had this new form appeared—with the establishment of Johns Hopkins University (1876)—than the U.S. higher education “morphed” again with the creation of the nation’s first junior college in Joliet, Illinois, in 1901.

This brief history of the structure and mission of U.S. higher education is important because it demonstrates how higher education has evolved via diversification. While in some cases college missions changed as new innovations and models arose, mostly this was not the case. Today’s landscape consists of a diverse mix of public, private, independent, religious-affiliated, land-grant, research-intensive, two-year, four-year, non-profit, for-profit, online, and on-ground institutions.

While nearly all of these diverse institutions have students, faculty, campuses, classrooms, and use learning content, their missions, structure, business models, and economics may vary widely. In general, the temptation to think of U.S. higher education as monolithic spells trouble. And while this paper attempts to identify general truths and findings, it is likely that firmer answers will depend on the mission traits and history of each institution.

**Disruption of U.S. Higher Education**

From several vantage points, colleges and universities resemble other industries that have been disrupted in the past two decades. First, their management processes are generally opaque, their cost structures are byzantine, their prices are rising faster than other notable sectors of the economy (e.g., health care), they are hard to change, and their service credo seems to be “have it our way.” Those of us in public higher education have—until recently—been content to live with low rates of student completion in the knowledge that our state governments will pick up the tab based on a student’s enrollment and because we know that our subsidies guarantee that someone new will fill the shoes of the one who leaves college early. In fact, according to the National Student Clearinghouse Research Center, “more than 31 million students have enrolled in college and left without receiving a degree or certificate in the past 20 years.” We also tolerate huge variation in the quality and even content of the coursework we offer. Rarely, if ever, does the college intervene with faculty members whose failure or dropout rates exceed the institution’s norm.
Increasingly, colleges and universities look to some like television cable operators. We offer catalogs of hundreds of courses every term, knowing that some may attract 500 viewers, while others attract fewer than 10. Moreover, we bundle into our price the full gamut of recreational services, academic support, concerts, sporting events, food and housing services, career placement services, etc. For many students, the bundle of courses, services, and activities we offer is exactly the integrated life experience immersion they are looking for. However, an increasing number of students seem to be searching for an educational Apple TV—a slimmed-down version of our all-in-one offering that limits choices, but also limits investment of time and money. This quest manifests itself in the rising demand for either a fully online learning experience that discards the campus package altogether, or for programs that blend the richness of campus life with the convenience of online delivery.

While unified student consumer militancy has not yet surfaced, it is clear that few of those in the college pipeline will tolerate the have-it-our-way service credo.

Changing student preferences, growing budgetary and regulatory pressure on public universities, a softening of enrollments nationwide, rising concerns of rating agencies, destructive tuition discounting among many private non-profits, and a steady U.S. slide in world ranks in key measures of success like graduation rates, lead many to conclude that U.S. higher education is ripe for disruption and ultimate transformation. The emergence of so-called edu-punk, edu-preneur, venture philanthropists, private equity investors, and others at the periphery of traditional colleges and universities lends urgency and potency to this conclusion. And while unified student consumer militancy has not yet surfaced, it is clear that few of those in the college pipeline will tolerate the have-it-our-way service credo.

The literature that describes the evolution, disruption, transformation, or demise of the contemporary college and university is large and growing. The Atlantic describes “the drumbeat of doomsday declarations about higher education in recent years.” President Janet Napolitano in the Washington Post calls this “a chorus of doom.” A recent addition to this growing literature is dramatically titled The End of College. In it, author Kevin Carey describes how “another group of [Silicon Valley] startup companies was aiming for full-scale Godzilla-style higher education disruption, with the burning cities and charred carcasses of advancing tank brigades.” Much of this literature of despair derives from Peter Drucker’s famously gloomy prediction that, “already we are beginning to deliver more lectures and classes off campus via satellite or two-way video at a fraction of the cost. The college won’t survive as a residential institution. Today’s buildings are hopelessly unsuited and totally unneeded.” This thread accumulates followers via Clayton Christensen’s 2011 application of the disruption framework to higher education in The Innovative University. It is tempting to conclude that the rumors of higher education’s death have been greatly exaggerated. However, one should also carry in mind lessons learned from steel and auto making industries as well as the more recent examples of newspapers, music producers, and others. And while University of California President Napolitano is right to recognize higher education’s history of adaptive evolution, and is almost certainly likely right that elite research powerhouses...
like the University of California are not in crisis, she may not fully appreciate the dynamics of two-year colleges whose sustainability depends on a largely (70%) part-time faculty that earned a median pay of $2,700 per course in 2010. Nor may she fully appreciate the weight that tuition discounts are placing on some private independent colleges’ capacity to borrow and ultimately operate. This year, only 39% of those college presidents surveyed by Inside Higher Education felt confident that their institutions’ financial model would be sustainable for the next decade.

We conclude that characterizing all colleges and universities as “perpetuities” distracts us from the pressing existential challenges many particular institutions may soon face. Astute college store managers need to understand the financial health and sustainability of the institutions they support.

Competitive Dynamics

Key Trends

Higher education is a complex endeavor and many important trends are influencing its competitive posture, health, and sustainability. The nature of the academic workforce—faculty members and librarians—have changed dramatically in the past two decades. The archetypical 18- to 24-year-old male college student is no longer iconic. Undergrads today are predominantly female. And the 18- to 24-year-old student cohort shares an on-ground and online learning environment with a diverse range of non-traditional colleagues. Student preferences, choices, values, and preparedness levels are, not surprisingly, changing fast. Digital technologies have revolutionized research and are beginning to permeate the teaching and learning process. College store leaders are best served by a short list of potent trends:

- **Cost disease**—the “sticker price” of a college or university education is rising faster than the consumer price index and even that of health care. Student debt—which fails to account for student credit card debt and which cannot be forgiven—now exceeds $1.2 trillion.

- **Cost shifting**—most U.S. states are inexorably shifting the higher education burden from state government to students.

- **Slow enrollment growth**—higher education’s teaching and learning line of business is mature. Increasing the rate of participation in U.S. higher education has been slow and difficult.

- **Growing pressure to standardize and demonstrate results**—a large and growing number of states are shifting the basis of funding their public institutions of higher education from one based on enrollments to one based on course completion, retention, persistence, and program or degree completion. As well, regulators are increasing pressures to assess, recognize, and certify competencies, prior learning, and coursework undertaken elsewhere.

- **Rapid adoption of online education.** According to a fall 2013 report from the U.S. Department of Education, one in eight students was enrolled in a fully online college or university program, and one student in four took at least one distance course in the fall 2013. Enrollments in fully online programs grew by 9% in 2014, while overall enrollments in non-profit universities declined by 4%.

- **Venture philanthropies and private equity firms are leading a charge to re-invent core aspects of how higher education can be delivered.** Some have characterized this as the “siege of academe.”

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31 From a fall 2010 survey by the Coalition on the Academic Workforce. The survey received close to 30,000 responses, with more than 10,000 coming from faculty members who were teaching part-time at an institution or institutions of higher education in fall 2010. Available at: [http://www.academicworkforce.org/survey.html](http://www.academicworkforce.org/survey.html).

Rivalry within Higher Education

While higher education appears to the casual observer as a collaborative and even genteel sector of the economy, competition between segments ranges from modest to intense. Increasingly, parts of higher education are assuming a winner-takes-all competitive character.

- Highly selective public and private institutions compete intensely to attract the best and brightest students globally. State flagship institutions are pressing for greater autonomy and for the right to admit growing numbers of out-of-state students.
- Less selective private colleges and universities are generally tuition dependent and are engaged in intense competition for students. These institutions often engage in discounting tuition as a means of meeting their enrollment goals.
- Public comprehensive universities compete little or intensely depending on the underlying demographics of the states they serve. States like California cannot meet the demand for admission and suffer little from competition, while states with stagnant or declining populations are facing institutional mergers and consolidations to head off capacity over-supply and the associated competition.
- Two-year colleges generally continue to operate with protected service areas. However, the growth of online learning opportunities and pressures for eased credit transfer are raising the competitive bar in this segment.
- For-profit colleges now compete for students under new and demanding regulatory burdens raising an already intense level of competition to new heights.

Bargaining Power of Suppliers

Colleges and universities can have hundreds or thousands of suppliers. However, in the context of the learning content ecosystem there are three suppliers that matter:

- Funders to sustain the enterprise;
- Faculty to deliver instruction; and
- Publishers, distributors, and others who supply the learning content.

The bargaining power of states as funders of state universities is rising. While funding formulas historically focused on a per capita subvention for enrolling students, most states are focusing on student success and many are tying funding to the institution’s demonstration of prescribed student outcomes. The Federal Government is also a supplier of funds via federal financial aid programs. It is possible that regulations will seek to tie an institution’s financial aid eligibility to its performance in promoting higher graduation and certification rates. If successful, the bargaining power of the Federal Government will rise.

The power of faculty is in decline. From fall 1991 to fall 2011, the number of full-time instructional faculty in degree-granting postsecondary institutions increased by 42%, while the number of part-time faculty increased by 162%. The percentage of faculty who were part-time increased from 35 to 50% during this period. According to the U.S. Department of Education, 70% of the faculty in U.S. two-year colleges were part-time workers in 2011. As Baby Boom-generation senior faculty members retire, some will not be replaced, some will be replaced with part-time faculty, and some with full-time junior faculty on the tenure track. In all of these cases, the structure of the professoriate will change and its bargaining power will decline. This trend is exacerbated by the slow but increasing application of technology to some aspects of instruction and by ongoing experimentation with new scale-seeking delivery models like MOOCs. Kevin Carey characterized this as the “siege of academe.”


The bargaining power of publishers regarding course materials is also declining. The reasons for this decline include:

- Continued “adjustment” costs—including cultural—to shifting from a print-based business to a digital one;
- The general richness of open materials on the web;
- The increasing propensity of students to rent or otherwise avoid buying new textbooks;
- A decline in faculty’s assignment of textbooks and slow faculty adoption of digital textbook supplements;
- The lack of standards and fully robust solutions in the e-reader product space;
- A maturing of the OER “movement” and general faculty hopefulness surrounding OER; and
- A persistent regulatory and faculty perception that a “broken business model” is accountable for unsustainable rises in textbook costs.

The bargaining power of academic publishers—particularly those large publishers of specialized top-tier academic journals—remains high despite continual efforts to create OER alternatives. The staying power in this publishing niche very likely relates to how publishing activity is bound up in the process of academic peer review.

Threat of New Entrants

The threat of new entrants is low. The cost of creating a new college or university is enormous and raises a substantial entry barrier. Demand for college education in the U.S. is growing only modestly owing to both the size of the high school pipeline and the difficulty in increasing the rate of participation. Compounding this demographic challenge, the U.S. economy has been adding jobs and higher education has always behaved counter-cyclically with employment. In the 1990s, privately capitalized newcomers exploited untapped demand and the new ability to conduct coursework online. The for-profit sector of higher education grew over 15 years from 3% of total U.S. enrollments to 8% currently. As the bloom has come off this rose and as some non-profit institutions have become adept online providers, the new entrants of 20 years ago have struggled. Enrollments in fully online programs at for-profit institutions in 2013 declined 8.3% while such programs in non-profit institutions grew by 9%. There are no new large-scale threats of entry and it is unlikely there will be until either: (1) new technologies and pedagogies really combine to change the economics or success attributes of learning; (2) global giants like Google, Amazon, Facebook, LinkedIn, and others become (or partner with) educators; or (3) Pearson’s experiment with Pearson College proves successful and replicable.

34 WCET, “IPEDS Fall 2013: Distance Education Data Reveals More Than Overall Flat Growth,” March 2015. Available at: https://wcetblog.wordpress.com/2015/03/10/ipedsenrollments/.
This said, the threat of existing educators expanding their markets is high. Expeditionary educators like Arizona State University, Penn State University, and the Colorado State University are leveraging their reputations, business partnerships, and growing online prowess to win enrollments across traditional jurisdictional boundaries. Less well-known institutions like Indiana Wesleyan University now graduate more nurses than their much larger neighbor Indiana University, while Hawaii’s Chaminade University dominates online instruction across many Pacific island nations. And while some of the air has been released from the MOOC balloon, it is far too early to count them out. As their ability to deliver higher education course content at massive scale matures, renowned universities and super star faculty will occupy markets everywhere. Their challenge will consist of balancing the cachet of exclusivity with the capacity to expand globally.

As their ability to deliver higher education course content at massive scale matures, renowned universities and super star faculty will occupy markets everywhere.

Bargaining Power of Buyers
While it is tempting to assume that buyers always have bargaining power, this is not always the case. Students (once matriculated), for example, supply a considerable portion of higher education’s funding but in fact have little power beyond the power to leave our institutions if dissatisfied. Even the power to leave can have limited potency. Students will often trade bargaining power for in-state fees, Ivy-League prestige, or an attractive financial aid package. This said, at many tuition-dependent colleges, the bargaining power of students is considerable. With enrollments flat or in decline, some independent colleges have little choice but to offer rich financial aid packages in order to meet their enrollment goals or maintain their academic cachet. Stories abound of parents playing scholarship offers from one college against those of another in a raw display of rising buyer power. The bargaining power of students, while weak overall, is rising. As regulation promotes student outcomes, easy transferability of course credits, and credit for prior learning, students are acquiring the means to ration and allocate their educational dollars more aggressively. More and more students, for example, are taking their first two years of instruction in community college secure in the knowledge that pre-approved coursework will be fully accredited at the four-year state university. And if low-cost options like MOOCs become more pervasive, this trend and student bargaining power will increase. It is clear that increasing student consumer power and reducing the high cost of higher education are clearly the thrust of current legislation and regulation.

The bargaining power of students as consumers of instruction is likely rising. This area has not been studied well, but is rich in anecdote. One startling anecdote comes from Oxford University which debated mandating student attendance of lectures and tutorials. Apparently, a great many Oxford students were finding ways of mastering their required coursework without attending class. Student absenteeism is widespread and has profound implications. Many institutions are now “flipping the classroom” by capturing lectures on video in order to engage students more deeply in in-class activities. Already space plans and classroom designs at many institutions are changing to reflect these changing student preferences and the widespread student enrollment in online classes.

There is a growing literature regarding the “do-it-yourself education” phenomenon. Fee paying students who do not attend classes may lessen the class experience for others, but do not imperil the college business model. However, if prospective students (and their parents) learn that classroom attendance is not expected and if employers begin to discount the value of degrees, then some students in the future will exercise their bargaining power through do-it-yourself learning at a lower cost. That will threaten colleges and universities.
Threat of Substitutes

First, it is important to understand that the college or university experience consists of:

- A life experience often associated with young adult development;
- The acquisition of a lifelong and potentially valuable social network;
- The acquisition of new knowledge, abilities, and skills; and
- The acquisition of a credential or qualification that carries income and employment potential.

There appears to be no potent substitute for either the “life experience” or for the social networks one acquires while attending a college or university. This is why campus location, quality, and co-curricular activities matter. It is also why selectivity matters. The social network one can create in college consists not only of friends, but has the potential to outfit a student with a lifelong web of professional connections.

Delivering collegiate instruction is also a very durable undertaking that has no ready substitutes. Students exchanging lessons and opinions in classrooms or on grassy quadrangles are not so very unlike their predecessors who might have studied with Plato, Spinoza, or Fermi. However, while the “classroom experience” is durable and remains dominant, online learning can and does substitute for it well and with increasing frequency. In fact, online learning is behaving much like other disruptive innovations we are aware of. It has gone from being vilified as a poor and inferior substitute with equivocal learning outcomes to a grudgingly accepted part of the instructor’s tool kit exhibiting “no significant difference” in learning outcomes. Like Toyotas on their way to being Lexuses, online delivery technologies and techniques are receiving ongoing capital investment by private equity firms, university consortia, philanthropic foundations, and publishers. Conventional classes delivered “on ground” are not. Stanford University President John Hennessy argues that—in time—introductory courses could be “more compelling” if the best instructors produce enhanced courses that could be widely distributed. On-campus faculty members could function as in-class coaches—leading group exercises, offering extra help to those who are struggling, and so forth. Done well, Hennessy argues, these courses will be better than most of those offered by individual colleges. “Only the very best instructors will be able to compete with very high quality courses,” he said. Hennessy went on to speculate that such courses may cost and attract millions of dollars to produce. He also believes that online delivery will dominate the future of continuing education and professional education.

To the extent that for some, the primary purpose of college is to win a good job and lifetime earnings, the real substitutes are not competitive forms of collegiate education, but alternative sources of lifetime employment. For the high school grad who can earn $60,000 driving a water truck to a fracking well, the substitute may be a job. For others, shorter programs in “Career College” or in trades apprenticeships can be a substitute. For yet others, our titanic technology entrepreneurs like Bill Gates, Larry Ellison, and Steve Jobs subtly signal that a college degree is no substitute for intelligence, hard work, and entrepreneurial grit. The threat of substitutes rises when contemporary business giants like Google periodically and proudly report their growing comfort with hires coming from outside the collegiate pipeline.

Key Players

The U.S. Department of Education counted 4,599 degree-granting institutions as of 2011. Those institutions spent more than $488 billion, including $306 billion (in current dollars) at public postsecondary institutions, $160 billion at private non-profit institutions, and $23 billion at private for-profit institutions. At public institutions, 26% of these expenses were spent on instruction, compared with 33% at private non-profit institutions, and 24% at private for-profit institutions. Despite the very large number of U.S. degree granting institutions, higher education is dominated by a far smaller number. Harvard University alone expended in excess of $4.2 billion in 2013 on its operations. In terms of enrollments and dollars, U.S. higher education is very heavily influenced by 50-100 institutions. They must be considered key players.

Other key players include higher education’s innovators and thought leaders. These thought leaders span every segment of higher education. Their exceptional nature does not reflect the size of their enrollment, their location, their charter, or their budget.

In terms of enrollments and dollars, U.S. higher education is very heavily influenced by 50-100 institutions. They must be considered key players.

Key foundations like the Gates, Lumina, Hewlett, Pew, and Mellon foundations have played very prominent roles in shaping nationwide higher education policy and practice. The Gates and Lumina foundations in particular are focused on the application of instructional and other technologies to student performance and success, and to the economics of higher education. Their philanthropy is designed to foster the emergence of new business models, delivery systems, learning content paradigms, and other transformational developments.

The U.S. Department of Education and the legislators and governors of the states are increasingly playing key roles in shaping matters that impact students and those—who serve them. Increasingly these players are creating incentives and sanctions that foster student educational progression, graduation, and workforce readiness. They are also keenly focused on the cost of education in spite of contributing themselves to the shifting of costs to students.

The publishing, sales, hubs, and distribution giants are key players. Not only do these entities participate as suppliers to the learning content ecosystem, their competitive dynamics (discussed later) make them critically important collaborators, impediments, or outright competitors.

And, of course, students are the perennial sleeping giants. Some are being crushed by the $1.2 trillion debt that stems from their schooling. Many are working more than 20 hours a week while attending school. A great many are leaving our institutions without the credentials they sought. While they are not currently mobilized around the issue of higher education or course material affordability, the rapid and virulent rise and spread of the Occupy movement of 2011-12 should remind us of the potency of this group. In fact the Occupy metaphor is apt. There is a simple Chrome extension called occupythebookstore.com which extends the college store’s website “by showing you the best prices on the web as well as on-campus student listings for the book right alongside the prices that your bookstore is offering.” Consumer activism—in the digital age—is only a click away.

Technologies and Other Innovations to Watch

There are far too many moving parts to provide definitive guidance here. By their nature, technologies change fast. Pedagogical innovation (e.g., improvement in instructional practice), however, is far slower due to the academy’s inherent skepticism of untested ideas. That said, there are some tracks that college store managers should follow:

• **Online learning**—Is your institution a player? Which student markets are being served? How do fully online learners acquire their learning content? If web content is being used, is it open content, licensed content, or potentially pirated content? Do faculty teaching online courses have different relationships with the college store than those who teach “on ground”?

• **Adaptive or personalized learning**—Once digital, publishers or authors can bestow “intelligence” on learning content. Smart content can dynamically measure variables like time on task and answers to imbedded questions to assess a student’s mastery level of the material. Based on this continual assessment of capability, learning content adapts to the student’s mastery level. Personalized learning content has the capacity to complete the overthrow of printed textbooks and can likely assure publishers a continued secure spot in the ecosystem. Over time, sophisticated course materials will approximate a personal tutor.
• **Integrated Planning and Assessment Systems**—These systems accept “feeds” from institutional systems—attendance, student information, registration, course management, and others—and combine this data with predictive models. They create dashboards that faculty or students can monitor to understand when and if their performance has become “at risk” of failure. This category includes big data and learning analytics which are growing in importance.

• **Digital Content Curation**—Publishers, independent content creation engine makers like Ace Learning, and wholesalers have been getting more sophisticated at evaluating and recommending published academic content for use within courseware. As these expert systems automate or accelerate decision making and selection choices for academic content—at an increasingly granular level—they will either augment or substitute for expertise resident in college stores or libraries. For this reason, they merit attention.

• **Digital Courses**—Large publishers and specialized “boutiques” are manufacturing courses. Importantly, these courses typically imbed publisher or OER learning content eliminating the need for separate course materials. These courses—produced by publisher “X”—are packaged in templates bearing the college or universities logos and trademarks. To the student, they are a course. To the extent that these courses are well executed and contain substantial and authentic rich academic media and content, they completely re-define today’s learning content supply chain. In such a scenario, courses are likely to be selected through faculty and/or provostial processes and paid for through student content fees. Students taking such a course have no option but to acquire the course under a license, via a pre-paid course fee.

Of course there are scores of innovations and technologies that have huge educational potential. Games, 3-D modeling, artificial intelligence, augmented reality, cognitive assistants, and the widespread embedding of intelligence in everything (Internet of Things) will likely revolutionize teaching and learning. At this writing, these innovations are well worth tracking but their mainstream use may be five years or more in the future.

**Critical Questions: The Learning Content Hub—Colleges and Universities**

1. **What is the nature of your campus—public, private, independent, religious-affiliated, land-grant, research-intensive, two-year, four-year, non-profit, for-profit?** How do your institution's mission, structure, business models, and economics impact its approach—and the campus store's approach—to learning content and the future of course materials on your campus?

2. **What is the status of your institution's financial health and sustainability?** How does this impact decisions and strategy you should be aware of or addressing?

3. **What is the condition of bargaining power for the state, publishers, distributors, and campus stakeholders (such as faculty and campus administrators) for your campus?**
Further Readings


